CHAPTER 445A

WATER CONTROLS

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PERMITS TO CONSTRUCT PIERS, BREAKWATERS OR MOORING BUOYS

NAC 445A.028 Definitions. As used in NAC 445A.028 to 445A.052, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.029 to 445A.043, inclusive, have the meanings ascribed to them in those sections.
(Supplied in codification)—(Substituted in revision for NAC 445.040)

NAC 445A.029 "Breakwater" defined. "Breakwater" means a man-made barrier which diminishes the force of waves.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.2, eff. 10-30-79]—(Substituted in revision for NAC 445.041)

NAC 445A.030 "Commercial use" defined.
1. "Commercial use" means use of a structure or facility which is operated primarily for profit.
2. The term does not include use of any publicly owned structure.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.3, eff. 10-30-79]—(Substituted in revision for NAC 445.042)

NAC 445A.031 "Department" defined. "Department" means the state department of conservation and natural resources.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.4, eff. 10-30-79]—(Substituted in revision for NAC 445.043)

NAC 445A.032 "Director" defined. "Director" means the director of the department.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.5, eff. 10-30-79]—(Substituted in revision for NAC 445.044)

NAC 445A.033 "Dredging" defined. "Dredging" means removing or rearranging material which is located beneath the high water elevation and is in or under the water of Lake Tahoe.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.6, eff. 10-30-79]—(Substituted in revision for NAC 445.045)

NAC 445A.034 "Fill" defined. "Fill" means any material deposited by man in Lake Tahoe.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.7, eff. 10-30-79]—(Substituted in revision for NAC 445.046)

NAC 445A.035 "Floating dock or platform" defined. "Floating dock or platform" means any structure designed to float on the water while anchored to the shore or bed of Lake Tahoe.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.8, eff. 10-30-79]—(Substituted in revision for NAC 445.047)

NAC 445A.036 "Industrial use" defined. "Industrial use" means any use which entails removing, transporting or stockpiling any materials or goods being processed.
[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.9, eff. 10-30-79]—(Substituted in revision for NAC 445.048)

NAC 445A.037 "Littoral parcel" defined. "Littoral parcel" means a parcel of land adjoining the bed of Lake Tahoe.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.10, eff. 10-30-79]—(Substituted in revision for NAC 445.049)

NAC 445A.038 "Multiple use" defined. "Multiple use" means use of a facility owned or managed by more than one person for the exclusive benefit of the owners and their families and guests.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.11, eff. 10-30-79]—(Substituted in revision for NAC 445.050)

NAC 445A.039 "Navigational structure" defined. "Navigational structure" means a device which is maintained primarily for aiding navigation and is approved by the appropriate federal or state agency for that use.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.12, eff. 10-30-79]—(Substituted in revision for NAC 445.051)

NAC 445A.040 "Permit" defined. "Permit" means a permit issued pursuant to the authority contained in NRS 445A.170.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.13, eff. 10-30-79]—(Substituted in revision for NAC 445.052)

NAC 445A.041 "Person" defined. "Person" includes any governmental entity.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.14, eff. 10-30-79]—(Substituted in revision for NAC 445.053)

NAC 445A.042 "Pier" defined. "Pier" means a fixed or floating structure or platform which:

1. Extends into or over the water of Lake Tahoe;
2. Is attached to pillars, piles, rocks or metal or is anchored to the bottom of the lake; and
3. Affords convenient passage to and from watercraft or provides moorage of watercraft.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.15, eff. 10-30-79]—(Substituted in revision for NAC 445.054)

NAC 445A.043 "Salvage" defined. "Salvage" means removal of any goods or property from beneath the water of Lake Tahoe.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 1.16, eff. 10-30-79]—(Substituted in revision for NAC 445.055)

NAC 445A.044 Application for permit; duration of permit.

1. Only a person who is the owner of a littoral parcel may apply for a permit to construct a pier, breakwater, mooring buoy or other structure.
2. A permit required by NRS 445A.170 for a pier, breakwater or other structure to be erected after July 1, 1979, may be requested by filing with the department an application on a form provided by the department.
3. An application form which is not filled out properly will not be accepted.
4. The department will notify the applicant of any deficiency when it returns the application for compliance.
5. A permit will be issued for not more than 20 years.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. §§ 2.1, 2.2, 2.5 & 3.17, eff. 10-30-79]—(Substituted in revision for NAC 445.056)

NAC 445A.045 Purposes for which permits may be issued; types of permits. The department will issue permits, upon the applicant's compliance with NAC 445A.028 to

445A.052, inclusive, for the erection of any structure on or in Lake Tahoe or its shore, for the removal of gravel, sand or similar material from the bed of Lake Tahoe, for the alteration of the Lake Tahoe shoreline below the high water elevation or for depositing any fill or deleterious material into Lake Tahoe. The permits will be of the following types:

1. Commercial use.
2. Dredging use.
3. Industrial use.
4. Multiple use.
5. Private use.
6. Use by a public agency.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 2.3, eff. 10-30-79]—(Substituted in revision for NAC 445.057)

NAC 445A.046 Procedure upon receipt of application for permit.

1. An application will be stamped with the date and time of filing with the department.

2. Within 10 days after receiving an application, the department will send notice of the application to:

(a) Owners of adjacent littoral property;

(b) Homeowners' associations and general or special improvement districts which may be affected;

(c) Governmental bodies which the department determines should be notified; and

(d) Persons who have informed the department of their desire to be so notified.

3. The department will consider objections or comments concerning an application only if they are:

(a) In writing; and

(b) Received by the department within 30 days after the notice of application has been given except that, upon request, the department may grant an extension of not more than 15 days for submission of objections or comments.

4. Within 10 days after the period for considering objections or comments has expired, the department may set a date and time for a public hearing. The date for the public hearing will be within 55 days after expiration of that period.

5. Within 10 days after the expiration of the period for considering objections or comments or within 10 days after the public hearing, whichever is later, the department will make a final decision on the application.

6. If an unforeseen combination of circumstances calls for the department's immediate action regarding construction or alteration, the department will consider the matter on an emergency basis. Construction or alteration may be performed upon oral consent from the department, to be followed by its written consent.

7. The decision by the department is the final administrative action on an application under NAC 445A.028 to 445A.052, inclusive.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. §§ 2.4 & 2.6-2.10, eff. 10-30-79]—(Substituted in revision for NAC 445.058)

NAC 445A.047 Factors considered in issuance or denial of permit.

1. In determining whether to issue a permit, the director will consider, but his consideration will not be limited to, the following factors:

(a) The location and density of existing piers and other structures;

(b) The effect of granting the permit upon the stability of the shoreline;

(c) The overall environmental integrity and recreational quality of the area in which the proposed structure or activity is to be located, including factors such as noise, visual esthetics and recreational potential;

(d) The private benefit to be obtained versus any loss of public benefit; and

(e) The economic and social effect upon the area.

2. In determining whether to deny a permit on the basis that the quality of the water of Lake Tahoe would be impaired by the structure or activity, the department will consider any anticipated change in the clarity, temperature, color, taste and odor of the water and will compare those characteristics with federal and state water quality standards.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 3.2, eff. 10-30-79]—(Substituted in revision for NAC 445.059)

NAC 445A.048 Construction of dock, pier or similar structure: Location; warning marker; identifying device.

1. Unless otherwise permitted by the department, a dock, pier or similar structure:

(a) Must be constructed as closely to a right angle to the shore as possible; and

(b) Must be constructed so as not to interfere with existing structures.

2. A structure or facility for:

(a) Commercial or industrial use must not be located closer than 25 feet from each adjacent property line extended lakeward at a right angle to the shore unless the department has received written consent from the owner of the affected adjacent property.

(b) Any use other than as a buoy or other than a use specified in subsection 2 must not be located closer than 10 feet from each adjacent property line extended lakeward at a right angle to the shore unless the department has received written consent from the owner of the affected adjacent property.

3. A buoy must not be:

(a) Placed closer than 50 feet from another buoy.

(b) Placed in the water at a depth greater than that necessary for safe accommodation of boats normally in use on Lake Tahoe.

(c) Located closer than 20 feet from each adjacent property line extended lakeward at a right angle to the shore unless the department has received written consent from the owner of the affected adjacent property.

4. Except as provided in this subsection, a dock, pier or similar structure may extend only to a length that will allow access to the water depth necessary for boats customarily in use during a normal period of low water. If extenuating circumstances exist, the department may allow an increase in the length or size of a dock, pier or similar structure.

5. If the department determines that a structure or facility might not be readily seen or might be a navigational hazard, it may grant a permit for the structure or facility upon the condition that a warning marker, approved by the department, is installed on the structure or facility.

6. A person shall not construct or place below the high water elevation of 6,229.1 feet, any swimming buoy, rope, fence or other barrier which hinders access to state land unless the department determines that a safety hazard exists or a substantial public benefit will accrue from its construction or placement.

7. A structure or facility must be designed and installed so that it will not be damaged by anticipated natural forces.

8. The department will issue an identifying device which must be installed on each permitted structure or facility within 30 days after the permit is issued.

9. A public agency which is issued a permit pursuant to NAC 445A.028 to 445A.052, inclusive, shall permanently post at the site for which the permit is issued a statement specifying the public use and the conditions of use for that site.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. §§ 3.3-3.11, eff. 10-30-79]—(Substituted in revision for NAC 445.060)

NAC 445A.049 Permit required to repair or alter structure. A permit is required for any repair, reconstruction or alteration of an existing pier, breakwater or other structure which:

1. Would increase the size or change the location of the structure; or

2. Might impair the quality of the water of Lake Tahoe.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 3.16, eff. 10-30-79]—(Substituted in revision for NAC 445.061)

NAC 445A.050 Cancelation of permit.

1. The department may cancel a permit for failure of the holder to comply with NAC 445A.028 to 445A.052, inclusive, or with any condition under which the permit was granted.

2. The department will not cancel a permit until 30 days after the holder has been informed by certified mail of the department's intention to cancel the permit and the reason for the intended cancelation or until a hearing is held if a hearing has been requested in writing. If, within the 30-day period, the holder corrects all the violations which were grounds for the intended cancelation, his permit will not be canceled. If he corrects those violations after the 30-day period, his permit may be reinstated.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. §§ 3.13 & 3.14, eff. 10-30-79]—(Substituted in revision for NAC 445.062)

NAC 445A.051 Renewal of permit. The department will renew a valid permit at least 15 days before its expiration date if the holder is in compliance with the applicable statutes and regulations.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 3.15, eff. 10-30-79]—(Substituted in revision for NAC 445.063)

NAC 445A.052 Transfer of permit.

1. A permit is not transferable as to location.

2. With the written concurrence of the department, a permit may be transferred from the holder to:

(a) The executor or administrator of the estate of a deceased person;

(b) The trustee of a trust; or

(c) Any other person.

[Dep't of Conserv. & Nat. Resources, Lake Tahoe Reg. § 3.1, eff. 10-30-79]—(Substituted in revision for NAC 445.064)

CERTIFICATION OF LABORATORIES TO ANALYZE SUBSTANCES IN WATER

General Provisions

NAC 445A.0552 Definitions. (NRS 445A.425, 445A.428) As used in NAC 445A.0552 to 445A.067, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.0554 to 445A.0606, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0554 "Accuracy" defined. (NRS 445A.425, 445A.428) "Accuracy" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0556 "Analyst" defined. (NRS 445A.425, 445A.428) "Analyst" means a chemist, microbiologist, physicist or technician who:

1. Is qualified to conduct analyses of environmental samples pursuant to the provisions of the manual specified in subsection 5 of NAC 445A.0612; and

2. Performs those tests or assists in performing those tests with other qualified employees of a certified laboratory.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0558 "Analyte" defined. (NRS 445A.425, 445A.428) "Analyte" means any compound, element, radical, isotope, contaminant organism, species or other substance for which an environmental sample is tested by a laboratory.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0562 "Approved method of testing" defined. (NRS 445A.425, 445A.428) "Approved method of testing" means a laboratory procedure specified in subsection 4 of NAC 445A.0622 that is approved by the Environmental Protection Agency or the division to test an environmental sample.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0564 "Certified laboratory" defined. (NRS 445A.425, 445A.428) "Certified laboratory" means a laboratory for which a certificate to conduct analyses of water is issued pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0566 "Commission" defined. (NRS 445A.425, 445A.428) "Commission" means the state environmental commission.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0568 "Director" defined. (NRS 445A.425, 445A.428) "Director" means:

1. A person who is qualified to administer any technical or scientific operation of a certified laboratory and supervise the procedures for the testing and reporting of the results of tests pursuant to the provisions of the standards; or
2. A chemist, microbiologist or physicist who is qualified to engage in an activity specified in subsection 1 pursuant to the provisions of the manual specified in subsection 5 of NAC 445A.0612.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0572 "Division" defined. (NRS 445A.425, 445A.428) "Division" means the division of environmental protection of the state department of conservation and natural resources.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0574 "Environmental sample" defined. (NRS 445A.425, 445A.428) "Environmental sample" means a sample of any substance obtained from any natural source or any source that may reasonably be expected to pollute or receive pollution from the atmosphere, supplies of drinking water, ground water, surface water, soil, sediment or ecosystem biota of this state, including, without limitation:

1. Ambient air;
2. Emissions of air from point sources;
3. Drinking water;
4. Receiving waters;
5. Soil or sediment;
6. Effluents from industrial, municipal or residential sources;
7. Samples from facilities used to store or handle chemicals;
8. Facilities used to dispose of waste;
9. Runoff of surface water; and
10. Samples obtained from facilities used to handle or apply substances for the control of weeds or insects.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0576 "Federal Act" defined. (NRS 445A.425, 445A.428) "Federal Act" means the Clean Water Act, 33 U.S.C. §§ 1251 et seq.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0578 "National Environmental Laboratory Accreditation Conference" defined. (NRS 445A.425, 445A.428) "National Environmental Laboratory Accreditation Conference" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0582 "National Environmental Laboratory Accreditation Program" defined. (NRS 445A.425, 445A.428) "National Environmental Laboratory Accreditation Program" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0584 "Performance-based measurement system" defined. (NRS 445A.425, 445A.428) "Performance-based measurement system" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0586 "Point source" defined. (NRS 445A.425, 445A.428)
1. "Point source" has the meaning ascribed to it in NRS 445A.395.
2. The term includes wheeled, track, stationary or floating equipment used for earth-moving activity from which pollutants are or may be discharged.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000; A by R096-01, 1-18-2002)

NAC 445A.0588 "Precision" defined. (NRS 445A.425, 445A.428) "Precision" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0592 "Proficiency test sample" defined. (NRS 445A.425, 445A.428) "Proficiency test sample" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0594 "Proficiency testing program" defined. (NRS 445A.425, 445A.428) "Proficiency testing program" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0596 "Quality control sample" defined. (NRS 445A.425, 445A.428) "Quality control sample" means an uncontaminated environmental sample that is spiked with a known analyte and provided to a laboratory for analysis to determine the performance of the laboratory in testing for the presence of that analyte by using a specified method of testing for the analyte.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0598 "Quality manual" defined. (NRS 445A.425, 445A.428) "Quality manual" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0602 "Sensitivity" defined. (NRS 445A.425, 445A.428) "Sensitivity" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0604 "Spike" defined. (NRS 445A.425, 445A.428) "Spike" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0606 "Standards" defined. (NRS 445A.425, 445A.428) "Standards" means the standards of the National Environmental Laboratory Accreditation Conference adopted by reference pursuant to the provisions of NAC 445A.0608.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

Guidelines and Procedures

NAC 445A.0608 Adoption by reference of *National Environmental Laboratory Accreditation Conference-Constitution, Bylaws and Standards*. (NRS 445A.425, 445A.428) The commission hereby adopts by reference the *National Environmental Laboratory Accreditation Conference-Constitution, Bylaws and Standards*, EPA 600/R-98/151, in the form most recently published by the Environmental Protection Agency, unless the commission gives notice pursuant to the provisions of NAC 445A.067 that the most recent publication is not suitable for this state. The publication is available, free of charge, from the Environmental Protection Agency, Office of Research and Development, 401 M Street, S.W., Washington, D.C. 20460, or from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/ttn/nelac**>.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0612 Adoption by reference of certain publications related to sample collection procedures, analytical methodologies and requirements for certification. (NRS 445A.425, 445A.428) The commission hereby adopts by reference the following publications in the forms most recently published, unless the commission gives notice pursuant to the provisions of NAC 445A.067 that the most recent publication is not suitable for this state. The publications are available, unless otherwise provided in this section, by mail from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, or by telephone at (800) 553-6847. The publications may also be obtained from the National Technical Information Service at the Internet address <**http://www.ntis.gov/ordering.htm**>. The publications are:

1. *Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA)*, EPA 910/9-92-029, Order Number PB93-180818, for the price of $31.50.
2. *DBP/ICR Analytical Methods Manual*, EPA 814-B-96-002, Order Number PB96-157516, for the price of $36.
3. *ICR Microbial Laboratory Manual*, EPA 600/R-95/178, Order Number PB96-157557, for the price of $51.
4. *ICR Sampling Manual*, April 1996, EPA 814-B-96-001, Order Number PB96-157508, for the price of $36.
5. *Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures, Quality Assurance*, 4th edition, EPA 815-B-97-001, Order Number PB90-220500, for the price of $36.50.
6. *Method 1613: Tetra-Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS, Revision B*, October 1994, EPA 821-B-94-005, Order Number PB95-104774, for the price of $34.
7. *Methods for the Chemical Analysis of Water and Wastes*, EPA 600 4-79-020, Order Number PB84-128677, for the price of $101.
8. *Methods for the Determination of Inorganic Substances in Environmental Samples*, August 1993, EPA/600/R-93-100, Order Number PB94-120821, for the price of $45.
9. *Methods for the Determination of Metals in Environmental Samples*, EPA/600-4-91/010, Order Number PB91-231498, for the price of $70.

10. *Methods for the Determination of Metals in Environmental Samples, Supplement I*, EPA/600/R-94/111, Order Number PB95-125472, for the price of $63.

11. *Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater, Volume I, Revision 1*, August 1993, EPA-821-R-93-010-A, Product Number PB94-121654, for the price of $133.

12. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 4th edition, EPA/600/4-90/027F, Order Number PB94-114733, for the price of $70.

13. *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms*, 3rd edition, EPA/600/4-91/002, Order Number PB96-141452, for the price of $60.

14. *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms*, 2nd edition, EPA/600/4-91-003, Order Number PB96-141445, for the price of $77.

15. *US EPA Contract Laboratory Program-Statement of Work for Organics Analysis-Multi-Media, Multi-Concentration, OLM01.0 (Includes Revisions OLM01.1 through OLM01.8)*, Order Number PB95-963508, for the price of $86.50. The publication is also available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/superfund/programs/clp/prodserv.htm**>.

16. *US EPA Contract Laboratory Program-Statement of Work for Inorganics Analysis-Multi-Media, Multi-Concentration, ILM02.1*, Order Number PB95-963514, for the price of $70. The publication is available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/superfund/programs/clp/prodserv.htm**>.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0614 Adoption by reference of certain publications related to methods of testing for certain contaminants. (NRS 445A.425, 445A.428) The commission hereby adopts by reference the following publications in the forms most recently published, unless the commission gives notice pursuant to the provisions of NAC 445A.067 that the most recent publication is not suitable for this state. The publications are available, unless otherwise provided in this section, by mail from the Superintendent of Documents, United States Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954, or by telephone at (202) 512-1800. The publications are:

1. *Method 1600-Membrane Filter Test Method for Enterococci in Water*, May 1997, EPA-821-R-97-004, which is available, free of charge, from the Environmental Protection Agency, National Center for Environmental Publications and Information, 11029 Kenwood Road, Building 5, Cincinnati, Ohio 45242.

2. *Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-Polar Material) by Extraction and Gravimetry*, February 1999, EPA-821-R-98-002. The publication is also available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/OST/Methods/oil.html**>.

3. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, 3rd edition, and *Updates I, II, IIA, IIB and III*, Publication Number 955-001-00000-1, for the price of $319. The publication is also available from the United States Government Printing Office at the Internet address <**http://search.epa.gov/epaoswer/hazwaste/test/txmain.htm**>.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0616 Adoption of certain ASTM standards and other publications related to calibration and testing laboratories, and examination of water and wastewater. (NRS 445A.425, 445A.428) The following publications are hereby adopted by the commission in the forms most recently published unless the Environmental Protection Agency fails to publish notice of its approval of the publication in the Federal Register or the commission gives notice

pursuant to the provisions of NAC 445A.067 that the most recent publication is not suitable for this state:

1. *Annual Book of ASTM Standards,* Section 5, "Petroleum Products, Lubricants, and Fossil Fuels," which is available from the American Society For Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, for the price of $528.

2. *Annual Book of ASTM Standards,* Section 11, "Water and Environmental Technology," which is available from the American Society For Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, for the price of $589.

3. *ISO/IEC Guide 25, General Requirements for the Competence of Calibration and Testing Laboratories*, 1990, which is available from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado 80112, for the price of $38.

4. *Standard Methods for the Examination of Water and Wastewater*, Order Number 10079, available from the American Water Works Association, Customer Service, 6666 West Quincy Avenue, Denver, Colorado 80235, for the price of $155 for members and $200 for nonmembers.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0618 Interpretation of provisions; resolution of conflicting requirements. (NRS 445A.425, 445A.428)

1. The provisions of NAC 445A.0552 to 445A.0654, inclusive, must not be interpreted to circumvent any of those provisions to make them less effective. If more than one interpretation exists for any of those provisions, the more restrictive interpretation applies.

2. If any publication adopted by reference pursuant to the provisions of NAC 445A.0612, 445A.0614 and 445A.0616 conflicts with any provision of NAC 445A.0552 to 445A.0654, inclusive, or with the standards, the provision set forth in NAC 445A.0552 to 445A.0654, inclusive, or the standards applies.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0622 Scope of certification. (NRS 445A.425, 445A.428)

1. Laboratory testing is the category of testing specified in Figure 1-3 of the standards for which a laboratory may obtain certification pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive.

2. The scientific disciplines within the category of testing specified in subsection 1 for which a laboratory may obtain certification are:

(a) Chemistry;
(b) Whole Effluent Toxicity;
(c) Microbiology; and
(d) Radiochemistry.

3. A laboratory may obtain certification pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, for any program relating to the analysis of water approved by the Environmental Protection Agency pursuant to the Federal Act.

4. Except as otherwise provided in subsection 5, the approved methods of testing for which a laboratory may obtain certification are set forth in:

(a) Title 40 C.F.R. § 136.3 and Appendices A, C and D to 40 C.F.R. Part 136;
(b) Appendices A and B to 40 C.F.R. Part 425;
(c) Title 40 C.F.R. § 434.64;
(d) Appendices 1 and 2 to 40 C.F.R. Part 435, Subpart A;
(e) Table 7 to 40 C.F.R. Part 455;
(f) Title 40 C.F.R. § 465.03(c);
(g) Title 40 C.F.R. § 503.8; and
(h) The publications specified in subsections 7 to 14, inclusive, of NAC 445A.0612, subsections 1 and 2 of NAC 445A.0614 and subsections 1, 2 and 4 of NAC 445A.0616.

5. A laboratory may obtain certification to use a performance-based measurement system or any other alternative method of testing if the laboratory:

(a) Complies with the provisions of subsection 5 of NAC 445A.0626;

(b) Obtains approval for that method of testing from the Environmental Protection Agency pursuant to the provisions of 40 C.F.R. §§ 403.7(b)(2)(v), 403.12(b)(5)(vi) or 403.12(g)(4);

(c) Complies with the requirements for application set forth in 40 C.F.R. § 136.4; and

(d) Provides proof and evaluates the performance-based measurement system or other alternative method of testing in accordance with the provisions of:

(1) Appendix E of chapter 5 of the standards;

(2) "Guidelines Establishing Test Procedures for the Analysis of Pollutants: Flexibility in Existing Test Procedures and Streamlined Approach for Approving New Test Methods," set forth in Volume 62 of the Federal Register at pages 14975 et seq., March 28, 1997; and

(3) "Performance Based Measurement System" set forth in Volume 62 of the Federal Register at pages 52098 et seq., October 6, 1997.

6. To be certified to conduct an analysis of an analyte using an approved method of testing specified in subsection 4, the analyte must be listed by the division in the approved method of testing pursuant to that subsection.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0624 Categories of analytes for which laboratory may be certified. (NRS 445A.425, 445A.428) For the purposes of charging and collecting fees and conducting performance evaluations pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, the division shall classify each analyte for which a laboratory may be certified into the following categories:

1. Trace metals;
2. Minerals;
3. Nutrients;
4. Demands;
5. Polychlorinated biphenyls (water);
6. Polychlorinated biphenyls (oil);
7. Pesticides;
8. Volatile halocarbons;
9. Volatile aromatics;
10. Total cyanide;
11. Nonfilterable residue;
12. Oil and grease;
13. Total phenolics;
14. Total residual chlorine;
15. Microbiological contaminants;
16. Radiochemical contaminants; or
17. Any other individual contaminant as defined by the Environmental Protection Agency.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0626 Requirements for certification in certain areas. (NRS 445A.425, 445A.428)

1. To be certified to conduct laboratory testing, a laboratory must comply with the requirements set forth in sections 1.8.3, 4.1.1, 5.0, 5.1 and 5.4 to 5.16, inclusive, of the standards.

2. To be certified in:

(a) Chemistry, a laboratory must comply with the requirements set forth in section 1.8.5 and Appendix D.1 of chapter 5 of the standards;

(b) Whole effluent toxicity, a laboratory must comply with the requirements set forth in section 1.8.6 of the standards and Appendix D.2 of chapter 5 of the standards;

(c) Microbiology, a laboratory must comply with the requirements set forth in section 1.8.7 and Appendix D.3 of chapter 5 of the standards; or

(d) Radiochemistry, a laboratory must comply with the requirements set forth in section 1.8.8 and Appendix D.4 of chapter 5 of the standards.

3. To be certified pursuant to the program specified in subsection 3 of NAC 445A.0622, a laboratory must comply with:

(a) The provisions concerning method detection limits, sample containers, holding times and preservation set forth in 40 C.F.R. § 136.3(e) and Appendix B to that part;

(b) The provisions of 40 C.F.R. §§ 403.7(b)(2), 403.12(b)(5) and 403.12(g)(4), if applicable;

(c) The provisions concerning the methods set forth in 40 C.F.R. § 455.50, if the laboratory conducts tests for active ingredients in pesticides; and

(d) The provisions concerning the collection of representative samples and the methods set forth in 40 C.F.R. Parts 501.15(b)(10)(iv) and 503.8, if the laboratory conducts tests of sewage sludge.

4. To be certified for an approved method of testing, a laboratory must comply with the requirements for using that approved method of testing specified in subsection 4 of NAC 445A.0622 and the standards. If a conflict occurs between a provision specified in that subsection and the standards concerning an approved method of testing, the standards apply. If a manufacturer provides instructions for maintaining any equipment used for testing or for ensuring the performance of any test or demonstrating the performance of any system of measurement, the laboratory shall comply with those instructions. If a conflict occurs between a provision of those instructions and a provision specified in subsection 4 of NAC 445A.0622 or the standards, the provisions specified in that section or the standards apply.

5. If a laboratory intends to use a performance-based measurement system or any other alternative method of testing, the laboratory shall, before the division conducts an inspection of the laboratory pursuant to the provisions of NAC 445A.0638, submit to the division a written statement setting forth the performance-based measurement system or other alternative method of testing it intends to use. The division may approve the performance-based measurement system or alternative method of testing if, as determined by the division:

(a) The system or method is equivalent to or exceeds the approved method of testing for accuracy, precision, completeness and comparability relating to determining compliance with the regulatory concentration levels or system conditions;

(b) An approved method of testing is not available for use by the laboratory to determine the presence of an analyte for which the laboratory requests certification pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive; or

(c) The laboratory obtains approval for the system or method from the Environmental Protection Agency.

6. To be certified to test for a specific analyte using an approved method of testing, a laboratory must comply with the requirements established by the division for the approved method of testing and the standards for initial and continuing calibrations of test equipment and demonstrations by analysts of precision, accuracy, sensitivity and low system background for each analyte. If a conflict occurs between the requirements established by the division and the standards, the standards apply.

7. As used in this section:

(a) "Holding times" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(b) "Low system background" means an analysis of a method blank that does not yield contamination at a concentration that is greater than the MDL.

(c) "Method blank" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(d) "Method detection limit" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0628 Certification by division or pursuant to National Environmental Laboratory Accreditation Program. (NRS 445A.425, 445A.428)

1. A laboratory may apply for certification by the division or certification pursuant to the National Environmental Laboratory Accreditation Program.

2. To obtain certification by the division, a laboratory must comply with the provisions of NAC 445A.0552 to 445A.0654, inclusive.

3. A laboratory that is certified by the division may provide analytical data for an environmental sample originating in this state for each analyte for which the laboratory is certified.

4. To obtain certification pursuant to the National Environmental Laboratory Accreditation Program, a laboratory must:

(a) Comply with the provisions of NAC 445A.0552 to 445A.0654, inclusive;

(b) Before obtaining certification pursuant to the program and every 2 years after obtaining that certification, submit to an assessment of the laboratory conducted at the laboratory under the direction of a person who is approved pursuant to the National Environmental Laboratory Accreditation Program; and

(c) Specify in its application for certification at least one approved method of testing and analyte pursuant to the provisions of subsections 4 and 6 of NAC 445A.0622.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0632 Application for certification. (NRS 445A.425, 445A.428)

1. To apply for certification pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, the director of the laboratory for which certification is requested must submit an application to the division on a form approved by the division. The application must be accompanied by the fees prescribed in NAC 445A.066 and include the information specified in sections 4.1.7 and 4.1.9 of the standards.

2. The provisions of this section do not require an application and certificate for each building or other portion of a certified laboratory that:

(a) Is operated by the same management, quality manual and quality assurance officer as the certified laboratory;

(b) Uses only methods for which the laboratory is certified;

(c) Does not issue reports directly but forwards data to the certified laboratory for reporting purposes; and

(d) The division determines is used to analyze the same environmental samples as the certified laboratory.

As used in this subsection, "quality assurance officer" means the quality assurance officer specified in section 5.4.2 of the standards.

3. The division shall not consider an application for certification submitted pursuant to this section to be complete unless:

(a) The laboratory specifies in the application the approved methods of testing in accordance with the provisions of NAC 445A.0622;

(b) The laboratory satisfactorily analyzes proficiency test samples in accordance with the provisions of NAC 445A.0634;

(c) The laboratory adopts a quality manual and submits the manual to the division pursuant to the provisions of NAC 445A.0636;

(d) The division conducts an inspection of the laboratory for the approved methods of testing and analytes for which the laboratory requests certification pursuant to the provisions of NAC 445A.0638;

(e) If the report of an inspection of the laboratory conducted by the division includes any deficiency that must be corrected, the laboratory submits to the division a written plan to correct the deficiency in accordance with the provisions of subsection 7 of NAC 445A.0638;

(f) The director of the laboratory is qualified for that position pursuant to the provisions of the manual specified in subsection 5 of NAC 445A.0612; and

(g) The applicable fees prescribed in NAC 445A.066 have been paid.

4. An application for certification shall be deemed withdrawn by the applicant if it is not completed pursuant to the provisions of this section within 1 year after the division receives the application. The division may extend the period in which an application must be completed

pursuant to this subsection if the applicant submits to the division a written request for an extension setting forth the reasons for the request.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0634 Participation in proficiency testing program. (NRS 445A.425, 445A.428)

1. Each laboratory for which an application for certification is submitted and each certified laboratory must participate in a proficiency testing program. The laboratory must:

(a) Obtain single-blind proficiency test samples from a provider approved by the National Institute of Testing Standards;

(b) Analyze the proficiency test samples, if available, for each category of certification and analyte that is included in the program; and

(c) Report the results of the analysis to the provider specified in paragraph (a).

If the laboratory is a certified laboratory and if a test will be conducted for each category of certification and analyte for which the laboratory is certified, the certified laboratory must analyze a proficiency test sample pursuant to the program not less than once every 6 months.

2. Each laboratory specified in subsection 1 shall pay the costs of subscribing to a program specified in that subsection.

3. Each laboratory specified in subsection 1 must satisfactorily analyze each analyte that is included in the program specified in subsection 3 of NAC 445A.0622 on two of the most recent three rounds of testing. Each laboratory shall, before obtaining a proficiency test sample pursuant to paragraph (a) of subsection 1, authorize the provider of the proficiency test sample to submit to the division the results of any test taken pursuant to the provisions of this section. If the laboratory fails to provide that authorization, the division may refuse to consider the results of any test taken pursuant to those provisions.

4. The division shall consider the results of any test taken pursuant to this section to be satisfactory if the results are within the limits of acceptance established by the provider of the proficiency test samples in accordance with the provisions of Appendix C of chapter 2 of the standards.

5. If the division determines that the results of a test are satisfactory, the laboratory may be certified to use any approved method of testing for each analyte that is satisfactorily analyzed by the laboratory if, as determined by the division, data sufficient to validate the use of that method of testing on an annual basis are available. If such data are not available, the division shall deny or revoke certification for that method of testing. As used in this paragraph, "data sufficient to validate" means performance of an initial demonstration of capability as defined in section 7.2.8 of the manual specified in subsection 5 of NAC 445A.0612.

6. If a certified laboratory fails:

(a) Two rounds of testing pursuant to subsection 3, the division shall suspend the certification of that laboratory for each analyte the laboratory failed to analyze during those rounds; or

(b) Three rounds of testing pursuant to that subsection, the division shall revoke the certification of that laboratory for each analyte the laboratory failed to analyze during those rounds.

7. If the division suspends the certification of a certified laboratory pursuant to subsection 6 because the laboratory failed two nonconsecutive rounds of testing, the division shall reinstate the certification of that laboratory for the method of testing and analyte for which the certification was suspended if the certified laboratory satisfactorily analyzes the analyte in a proficiency test sample that is approved by the division.

8. If the division suspends the certification of a certified laboratory pursuant to subsection 6 because the laboratory failed to analyze an analyte on two consecutive rounds of testing, the laboratory must satisfactorily analyze the analyte during each of two consecutive rounds of testing conducted after the division suspends the certification.

9. If the division revokes the certification of a certified laboratory pursuant to subsection 6, the laboratory must:

(a) Analyze satisfactorily the analyte for which the certification was revoked during each of two consecutive rounds of testing conducted after the division revoked the certification; and

(b) Reapply for certification and pay the applicable fees pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive.

If a certified laboratory complies with the provisions of this subsection and is otherwise qualified for certification pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, the division shall reinstate the certification of the laboratory for each method of testing and analyte for which the laboratory was certified.

10. Each certified laboratory must comply with the requirements concerning enrollment, testing, conduct and participation in the program specified in subsection 1 pursuant to the provisions of sections 2.4, 2.5 and 2.7 of the standards.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0636 Adoption of quality manual by laboratory; contents. (NRS 445A.425, 445A.428)

1. Each laboratory that applies for certification pursuant to NAC 445A.0552 to 445A.0654, inclusive, shall adopt a quality manual and comply with the provisions of that manual. The director of the laboratory shall submit the manual to the division before the division conducts an inspection of the laboratory.

2. Each quality manual specified in subsection 1 must be adopted in accordance with the provisions of section 5.5 of the standards and include, without limitation:

(a) A statement setting forth the requirements of the laboratory for sensitivity, precision and accuracy for each method of testing or analyte for which the laboratory requests certification; and

(b) The policy of the laboratory concerning any unauthorized use of data or fraudulent activity that occurs at the laboratory.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0638 Inspection of laboratory by division. (NRS 445A.425, 445A.428)

1. Unless a laboratory satisfies the provisions of subsection 4 of NAC 445A.0665, the division shall conduct an inspection of the premises and operation of each certified laboratory or laboratory for which an application for certification is submitted pursuant to the provisions of NAC 445A.0632. An inspection conducted pursuant to this section must be conducted in accordance with the provisions of sections 3.4 to 3.7, inclusive, of the standards. If a certified laboratory conducts analyses of wastewater, the laboratory must be inspected in accordance with the manual adopted by reference pursuant to the provisions of subsection 5 of NAC 445A.0612. A certified laboratory shall analyze a quality control sample for each method of testing and analyte for which it is certified:

(a) At least once every 12 months; and

(b) Each time a new calibration curve is generated.

2. The division shall conduct an inspection specified in subsection 1:

(a) Not less than once every 2 years, if the laboratory is a certified laboratory; or

(b) If the laboratory submits an application for certification pursuant to the provisions of NAC 445A.0632, not more than 30 days after the division determines that the laboratory has complied with the provisions of paragraphs (a), (b) and (c) of subsection 3 of that section.

3. The division may conduct an inspection of a laboratory more than once every 2 years pursuant to this section if:

(a) The division receives a complaint concerning the quality of the laboratory from a member of the general public or any public agency;

(b) The division has reasonable cause to believe the laboratory is engaging in fraudulent activity;

(c) The division identifies deficiencies in the operation of the laboratory after conducting an inspection of the laboratory pursuant to this section;

(d) The laboratory notifies the division pursuant to NAC 445A.0652 of any changes specified in that section; or

(e) Any circumstance specified in section 3.3 of the standards occurs.

4. An inspection conducted pursuant to the provisions of this section may include, without limitation:

(a) Requiring the laboratory to conduct an analysis of a proficiency test sample; and

(b) Photocopying, photographing or videotaping:

(1) Any part of the laboratory that is used for analyzing samples of water pursuant to the Federal Act;

(2) Any equipment, activity, environmental sample, records or results of any test relating to the analysis of water pursuant to the Federal Act;

(3) Any data concerning the control of the quality of any analysis conducted by the laboratory pursuant to the Federal Act; or

(4) Any other information required by the division to ensure compliance with the provisions of NAC 445A.0552 to 445A.0654, inclusive.

5. Except as otherwise provided in this subsection, the division shall announce each inspection conducted pursuant to the provisions of this section. The division may conduct an unannounced inspection of a laboratory if the division determines that such an inspection is required to ensure compliance by the laboratory with the provisions of NAC 445A.0552 to 445A.0654, inclusive. In determining whether to conduct an unannounced inspection, the division shall consider:

(a) The laboratory's record of compliance with the provisions of NAC 445A.0552 to 445A.0654, inclusive;

(b) The results of any proficiency test taken by the laboratory;

(c) The performance of any analyst or other employee of the laboratory in conducting an analysis of an environmental sample pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive;

(d) Any complaints concerning the laboratory that the division has received from members of the general public or any public agency; and

(e) The performance of the laboratory in conducting analyses pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive.

6. If the division conducts an inspection of a laboratory pursuant to the provisions of this section, the laboratory shall:

(a) Ensure that any record or other information which relates to compliance by the laboratory with the Federal Act or NAC 445A.0552 to 445A.0654, inclusive, and which is required by the division to conduct the inspection is available for review, including, without limitation:

(1) The quality manual adopted pursuant to the provisions of NAC 445A.0636;

(2) Any information concerning the methods of testing used by the laboratory;

(3) Any data concerning the control of the quality of an analysis conducted by the laboratory; and

(4) Any information concerning any proficiency test taken by the laboratory; and

(b) Allow the division to:

(1) Examine any records of the laboratory concerning the operation or certification of the laboratory that relate to compliance by the laboratory with the Federal Act or NAC 445A.0552 to 445A.0654, inclusive;

(2) Observe the operation, facilities and equipment of the laboratory that relate to compliance with the Federal Act or NAC 445A.0552 to 445A.0654, inclusive;

(3) Interview any employee of the laboratory who performs duties relating to compliance by the laboratory with the Federal Act or NAC 445A.0552 to 445A.0654, inclusive; and

(4) Engage in any activity which is necessary and appropriate for determining compliance by the laboratory with the Federal Act or NAC 445A.0552 to 445A.0654, inclusive, and which is required by the division.

7. If the division conducts an inspection of a laboratory, it shall, within 30 days after it conducts the inspection, provide to the laboratory a copy of the report of the inspection. The

report must include any deficiency the division discovers during its inspection of the laboratory. The laboratory shall prepare a plan to correct the deficiency specified in the report. The plan must:

(a) Be submitted to the division not more than 30 days after the laboratory receives the report from the division;

(b) Be submitted on a form approved by the division; and

(c) Include, without limitation:

(1) The signature of the person who prepared the plan; and

(2) The proposed date by which the laboratory will correct the deficiency.

8. If, after reviewing the plan submitted pursuant to subsection 7, the division determines that the plan is insufficient to correct the deficiency, the division shall notify the laboratory of that fact in writing. Upon receipt of the written notice, the laboratory shall, not more than 30 days after receiving the notice, submit a revised plan to the division. If, after reviewing the revised plan, the division determines that the revised plan is insufficient to correct the deficiency, or if the division conducts an inspection of the laboratory and determines that the deficiency has not been corrected, the division shall deny the laboratory's application for certification or revoke its certification.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0642 Grounds for denial of application for certification, or revocation, suspension or limitation of certification. (NRS 445A.425, 445A.428)

1. The division may deny an application for certification of a laboratory or revoke, suspend or limit the certification of a certified laboratory if the laboratory:

(a) Makes a false statement in:

(1) An application for certification;

(2) A report concerning the analysis of an environmental sample; or

(3) Any other document relating to certification in violation of the provisions of NAC 445A.0552 to 445A.0654, inclusive;

(b) Falsifies any results of laboratory testing or misrepresents any information obtained from laboratory testing in violation of the provisions of NAC 445A.0626 or 445A.0654;

(c) Fails to maintain the facilities or equipment of the laboratory in accordance with the quality manual or quality system of the laboratory;

(d) Fails to participate satisfactorily in a proficiency testing program, if the program is available, in violation of the provisions of NAC 445A.0634;

(e) Falsely claims certification for a method of testing or an analyte for which the laboratory is not certified in violation of the provisions of NAC 445A.0654;

(f) Fails to prepare a plan of correction or to correct any deficiency specified by the division within the period specified in the plan in violation of the provisions of NAC 445A.0638;

(g) Fails to pay any fees or expenses of the division in violation of the provisions of NAC 445A.066;

(h) Fails to notify the division of any changes specified in NAC 445A.0652;

(i) Authorizes a person who is not qualified to perform an analysis in violation of the provisions of NAC 445A.0626;

(j) Communicates with or receives a communication concerning the results of a proficiency test sample from a laboratory on or before the date established for submitting the results of that sample to the provider of the sample pursuant to the provisions of NAC 445A.0634;

(k) Knowingly receives a proficiency test sample from a laboratory or provides a proficiency test sample to a laboratory on or before the date specified in paragraph (j);

(l) Prohibits an employee of the division from conducting an inspection of the laboratory in violation of the provisions of NAC 445A.0638;

(m) Fails to provide to the division any information required by the division to determine whether a laboratory is operated in compliance with the provisions of NAC 445A.0552 to 445A.0654, inclusive;

(n) Misrepresents any material fact to obtain or maintain certification pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive; or

(o) Engages in any activity that is a ground for the denial of an application for certification or for the suspension or revocation of the certification of a laboratory set forth in sections 4.1.4(d) or 4.4 of the standards.

2. In determining whether to deny an application for certification or to revoke, suspend or limit the certification of a laboratory pursuant to this section, the division shall consider:

(a) The gravity of the violation;

(b) The harm to the health and safety of the members of the general public;

(c) The intent of the person who committed the violation;

(d) The extent of the violation; and

(e) Any proposed correction of the violation.

3. As used in this section, "quality system" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0644 Reapplication after denial of application or revocation of certification. (NRS 445A.425, 445A.428) If the division denies an application for certification submitted by a laboratory or revokes the certification of a certified laboratory, the laboratory may, after the period specified in section 4.4 of the standards expires, reapply for certification in the manner prescribed in NAC 445A.0632.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0646 Renewal of certification. (NRS 445A.425, 445A.428)

1. The division may renew the certificate of a certified laboratory if:

(a) The laboratory pays the applicable fee to renew the certificate;

(b) The laboratory submits a statement on a form approved by the division indicating that it is in compliance with the provisions of NAC 445A.0552 to 445A.0654, inclusive, concerning each category of testing, method of testing and analyte for which it is certified;

(c) The laboratory submits a report to the division indicating that it has received satisfactory proficiency test results for each category of testing and analyte for which it is certified; and

(d) The division determines that the laboratory is in compliance with the provisions of NAC 445A.0552 to 445A.0654, inclusive.

2. A certificate issued to a laboratory pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, expires on June 30 of each year. If the certificate of a certified laboratory expires, the laboratory may apply for certification in the manner prescribed in NAC 445A.0632.

3. Not later than June 1 of each year, the division shall mail to each certified laboratory a notice for the renewal of the certificate and a form to provide a statement of compliance specified in paragraph (b) of subsection 1.

4. Each certified laboratory shall maintain any record specified in section 4.3.3 of the standards in accordance with the provisions of that section.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0648 Display of certificate; conditions for surrender of certificate; issuance of document. (NRS 445A.425, 445A.428)

1. The director of the laboratory shall display the certificate issued by the division in a conspicuous place in the laboratory to which the members of the general public have access.

2. The certificate is the property of the division and must be surrendered to the division if:

(a) The division revokes the certificate;

(b) The laboratory for which the certificate is issued ceases to conduct analyses of water for which a certificate is required; or

(c) The division ceases to be an accrediting authority approved by the Environmental Protection Agency. As used in this paragraph, "accrediting authority" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

3. In addition to issuing a certificate to each certified laboratory, the division shall provide to each certified laboratory a document which indicates each category of testing and analyte for which the laboratory is certified. If, after the division provides the document to the laboratory, the division certifies the laboratory for an additional analyte or the division revokes, suspends or limits the certification of the laboratory for a category of testing or analyte, the division shall revise the document to include the additional analyte for which the laboratory is certified or the category of testing or analyte that is revoked, suspended or limited by the division.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0652 Notification of division of certain changes concerning certified laboratory. (NRS 445A.425, 445A.428) If, as determined by the division, a change concerning a certified laboratory occurs that substantially affects the ability of the laboratory to perform any analysis for which the laboratory is certified, the director of the laboratory shall, not more than 30 days after the change occurs, notify the division of the change in writing. For the purposes of this section, a change includes, without limitation, a change in the name, ownership, location or personnel of a laboratory or any other change specified in sections 4.1.8 and 4.3.2 of the standards.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

NAC 445A.0654 Contractual agreements, records and reports. (NRS 445A.425, 445A.428)

1. A certified laboratory shall ensure that each analysis it performs complies with the provisions of Appendix D of chapter 5 of the standards.

2. A certified laboratory shall maintain any document or other information required by the provisions of section 4.3.3 of the standards in accordance with the provisions of that section.

3. If a certified laboratory prepares a report of any test conducted pursuant to the provisions of this section, the report must be prepared in accordance with the provisions of section 5.13 of the standards.

4. If a certified laboratory is not certified to conduct a test in a category of testing or to use a method of testing or test for an analyte pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, the director of the laboratory may contract with a certified laboratory to perform that test if:

(a) Before entering into the contract, the director notifies in writing the person for whom the test will be conducted of his intent to enter into the contract; and

(b) The laboratory complies with the requirements specified in section 5.14 of the standards.

5. If a certified laboratory contracts with another certified laboratory pursuant to the provisions of this section, the director of the certified laboratory shall ensure that the certified laboratory that will conduct the test is certified pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive. If the certified laboratory that offered the contract maintains any record of the contract or of any test conducted pursuant to the contract, it shall include in that record:

(a) Any report submitted by the certified laboratory that conducted the test concerning the results of the test; and

(b) The certification number of the certified laboratory that conducted the test.

6. If the certified laboratory that offered the contract prepares a report concerning the results of any test conducted pursuant to the contract, it shall specify in the report that the results of that test were obtained by contract pursuant to the provisions of this section.

(Added to NAC by Environmental Comm'n by R070-99, eff. 5-26-2000)

Miscellaneous Provisions

NAC 445A.066 Fees for certification. (NRS 445A.425, 445A.428)

1. A laboratory must submit a one-time, nonrefundable fee of $400 with each application for certification, including, without limitation, any application for certification for additional analytes.

2. A laboratory must submit an annual certification fee for each category of contaminant for which certification is requested. The categories of contaminants and annual fees are:

CATEGORY OF CONTAMINANT	ANNUAL FEE
Trace Metals	$500
Minerals	500
Nutrients	250
Demands	250
Polychlorinated biphenols (Water)	250
Polychlorinated biphenols (Oil)	250
Pesticides	500
Volatile Halocarbons	250
Volatile Aromatics	250
Total Cyanide	125
Nonfilterable Residue	125
Oil and Grease	125
Total Phenolics	125
Total Residual Chlorine	125
Microbiological	350
Radiochemical	500
Other individual contaminant as defined by the United States Environmental Protection Agency	125

The annual certification fee to perform toxicity bioassays is $125.

3. The fee for certification for additional contaminants requested by a laboratory during an annual period of certification is $400. The fee must be prorated pursuant to subsection 4 if the provisions of that subsection otherwise apply. If the division conducts an evaluation for certification at the laboratory, the laboratory must pay, at the rate provided for state officers and employees generally, the actual travel and per diem expenses of the division. If the laboratory is located outside of this state, the expenses must be paid pursuant to the provisions of subsection 5.

4. The fees are effective for 12 months beginning on July 1 of each year. If an application for certification to test for an analyte is submitted during that period, the fees for that certification must be prorated using the following formula:

Fee X .083 X the number of months remaining in the fiscal year.

For the purpose of prorating fees, an application for certification to test for an analyte shall be deemed to have been submitted at the beginning of a month regardless of the date of the application. The prorated fee must be rounded to the next highest dollar. The fee for submitting an application for certification to test for an analyte must not be prorated.

5. If an evaluation for certification of a laboratory that is located outside this state is conducted, the laboratory must pay the actual travel and per diem expenses of the employee of the division who conducts the evaluation.

6. The fee for certification to test for a specific analyte must be paid before a certificate for that analyte may be issued.

7. Any fee paid pursuant to the provisions of this section is nonrefundable.

(Added to NAC by Environmental Comm'n, eff. 9-13-91; A 10-3-96; R070-99, 5-26-2000)

NAC 445A.0665 Acceptance of analyses conducted by laboratory located outside state. (NRS 445A.425, 445A.428) The division shall accept data relating to the analysis of

contaminants regulated pursuant to NRS 445A.300 to 445A.730, inclusive, that are submitted from a laboratory located outside of this state if:

1. The laboratory has otherwise complied with the requirements set forth in NAC 445A.0552 to 445A.0665, inclusive;

2. The laboratory is certified by:

(a) The state where it is located or, if the state where the laboratory is located does not have a program for certifying laboratories for the analysis of water, by any other state which provides those certifications; or

(b) The United States Environmental Protection Agency;

3. The division determines that the state where the laboratory is located:

(a) Has adopted a program for certifying laboratories for the analysis of water that is equivalent to the program for certifying those laboratories adopted by this state; and

(b) Accepts the results of evaluations conducted pursuant to the program adopted by this state;

4. The laboratory:

(a) Is located in a state that has established an agreement with this state concerning certification of laboratories by reciprocity; or

(b) Is certified pursuant to the National Environmental Laboratory Accreditation Program; and

5. The laboratory submits to the division a copy of an acceptable report relating to the most recent evaluation conducted at the laboratory by:

(a) The state where the laboratory is certified;

(b) An independent organization that is approved by the division to certify laboratories for the analysis of water; or

(c) The United States Environmental Protection Agency.

The evaluation to which the report relates must be conducted within the 2 years immediately preceding the date of the application of the laboratory for certification.

(Added to NAC by Environmental Comm'n, eff. 9-13-91; A 10-3-96; 10-29-97; A by R070-99, 5-26-2000)—(Substituted in revision for NAC 445A.057)

NAC 445A.067 Review by commission of publications adopted by reference. (NRS 445A.425, 445A.428) If any publication adopted by reference pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive, is revised, the commission may review the revision to determine its suitability for this state. If the commission determines that the revision is not suitable for this state, it will hold a public hearing to review its determination and give notice of that hearing within 6 months after the date of the publication of the revision. If, after the hearing, the commission does not revise its determination, the commission will give notice that the revision is not suitable for this state within 30 days after the hearing. If the commission does not give such notice, the revision becomes part of the publication adopted by reference pursuant to the provisions of NAC 445A.0552 to 445A.0654, inclusive.

(Added to NAC by Environmental Comm'n, eff. 10-3-96; A by R070-99, 5-26-2000)

WATER POLLUTION CONTROL

General Provisions

NAC 445A.070 Definitions. (NRS 445A.425, 445A.520) As used in NAC 445A.070 to 445A.348, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.071 to 445A.116, inclusive, have the meanings ascribed to them in those sections.

[Environmental Comm'n, Water Pollution Control Reg. part Art. 1, eff. 5-2-78; A 1-25-79]—(NAC A 7-22-87; 9-20-90; 9-13-91; 5-27-92; 10-3-96; R017-99, 9-27-99; R129-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.071 "A.G.M." defined. "A.G.M." means the annual geometric mean.
(Added to NAC by Environmental Comm'n, eff. 12-3-84)—(Substituted in revision for NAC 445.0705)

NAC 445A.072 "Act" defined. "Act" means the federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. §§ 1251 et seq.
[Environmental Comm'n, Water Pollution Control Reg. § 1.1, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.071)

NAC 445A.073 "Acute toxicity value" defined. "Acute toxicity value" means the concentration that is lethal to 50 percent of the test organisms within 96 hours.
[Environmental Comm'n, Water Pollution Control Reg. Art. 1 § a, eff. 7-2-80]—(Substituted in revision for NAC 445.072)

NAC 445A.074 "Administrator" defined. "Administrator" means the administrator of the United States Environmental Protection Agency.
[Environmental Comm'n, Water Pollution Control Reg. § 1.2, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.073)

NAC 445A.0745 "Annual mean flow" defined. (NRS 445A.425, 445A.520) "Annual mean flow" means a value calculated by:
1. Determining the rate of flow of water at or near the location at which a sample of water is taken not more than once each day during a 365-day period;
2. Summing the amounts determined pursuant to subsection 1 during the 365-day period; and
3. Dividing the sum determined pursuant to subsection 2 by the total number of days the rate of flow of water is measured pursuant to subsection 1 during the 365-day period.
(Added to NAC by Environmental Comm'n by R017-99, eff. 9-27-99)

NAC 445A.075 "Aquatic animal production facility" defined. "Aquatic animal production facility" means a hatchery, fish farm or other facility which contains, grows or holds:
1. Fish or other aquatic animals in ponds, raceways or other similar structures for purposes of production and from which there is a discharge on any 30 days or more per year, but does not include:
(a) Closed ponds which discharge only during periods of excess runoff; or
(b) Facilities which produce less than 20,000 pounds of aquatic animals per year.
2. Any species of fish or other animal life (other than carp (*Cyprinum carpio*), goldfish (*Carrasius auratus*) or brown trout (*Salmo trutta*)) nonnative to the United States as defined in "Special Publication No. 6" of the American Fisheries Society entitled "A List of Common and Scientific Names of Fishes from the United States and Canada" and from which there is a discharge at any time.
[Environmental Comm'n, Water Pollution Control Reg. §§ 1.3-1.3.1.2, eff. 5-2-78; § 1.3.2, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.074)

NAC 445A.076 "Buffer zone" defined. "Buffer zone" means the distance measured between the boundary of any site irrigated with treated effluent and:
1. The boundary line of the property on which the site is located;
2. The notice posted pursuant to subsection 3 of NAC 445A.275 warning the public of the presence of treated effluent; or
3. Any point where the property is open to public access,
whichever measurement is least.
(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.0747)

NAC 445A.077 "Commission" defined. "Commission" means the state environmental commission.

[Environmental Comm'n, Water Pollution Control Reg. § 1.5, eff. 5-2-78; A and renumbered as § 1.4, 1-25-79]—(Substituted in revision for NAC 445.075)

NAC 445A.078 "Complete treatment" defined. "Complete treatment" means that degree of treatment which is required to continuously produce water which meets the standards for drinking water of the state board of health.

[Environmental Comm'n, Water Pollution Control Reg. § 1.6, eff. 5-2-78; A and renumbered as § 1.5, 1-25-79]—(Substituted in revision for NAC 445.076)

NAC 445A.079 "Conventional treatment" defined. "Conventional treatment" means processes such as coagulation, sedimentation, filtration and disinfection. The term does not include desalting techniques.

[Environmental Comm'n, Water Pollution Control Reg. § 1.7, eff. 5-2-78; A and renumbered as § 1.6, 1-25-79]—(Substituted in revision for NAC 445.077)

NAC 445A.080 "Department" defined. "Department" means the state department of conservation and natural resources.

[Environmental Comm'n, Water Pollution Control Reg. § 1.8, eff. 5-2-78; A and renumbered as § 1.7, 1-25-79]—(Substituted in revision for NAC 445.078)

NAC 445A.081 "Director" defined. "Director" means the director of the department or his designee.

[Environmental Comm'n, Water Pollution Control Reg. § 1.9, eff. 5-2-78; A and renumbered as § 1.8, 1-25-79]—(Substituted in revision for NAC 445.079)

NAC 445A.082 "Discharge" defined. "Discharge" has the meaning ascribed to it in NRS 445A.345.

[Environmental Comm'n, Water Pollution Control Reg. § 1.10, eff. 5-2-78; A and renumbered as § 1.9, 1-25-79]—(Substituted in revision for NAC 445.080)

NAC 445A.083 "Disinfection" defined. "Disinfection" means the destruction or inactivation of disease-producing organisms.

[Environmental Comm'n, Water Pollution Control Reg. § 1.11 eff. 5-2-78; A and renumbered as § 1.10, 1-25-79]—(Substituted in revision for NAC 445.081)

NAC 445A.084 "Division" defined. "Division" has the meaning ascribed to it in NRS 445A.350.

[Environmental Comm'n, Water Pollution Control Reg. § 1.11, eff. 1-25-79]—(Substituted in revision for NAC 445.082)

NAC 445A.0845 "E coli" defined. (NRS 445A.425, 445A.520) "E coli" means *Escherichia coli*.

(Added to NAC by Environmental Comm'n by R099-02, eff. 12-17-2002)

NAC 445A.085 "Effluent limitation" defined. "Effluent limitation" has the meaning ascribed to it in NRS 445A.355.

[Environmental Comm'n, Water Pollution Control Reg. § 1.12, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.083)

NAC 445A.086 "Filtration" defined. "Filtration" means a physical-chemical process for removing suspended and colloidal impurities from water by passage through a porous medium by the following mechanisms: Absorption, flocculation, sedimentation and straining.

[Environmental Comm'n, Water Pollution Control Reg. § 1.13, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.084)

NAC 445A.0865 "Flow weighted annual average concentration" defined. (NRS 445A.425, 445A.520) "Flow weighted annual average concentration" means a value calculated by:

1. Multiplying, not more than once each day during a 365-day period, the concentration of pollutants present in a sample of water by the rate of flow of the water at the location and time at which the sample is taken;
2. Summing the amounts determined pursuant to subsection 1 during a 365-day period;
3. Dividing the sum determined pursuant to subsection 2 by the total number of days the concentration of pollutants is measured pursuant to subsection 1 during a 365-day period; and
4. Dividing the amount determined pursuant to subsection 3 by the annual mean flow.

(Added to NAC by Environmental Comm'n by R017-99, eff. 9-27-99)

NAC 445A.087 "Individual sewage disposal system" defined. "Individual sewage disposal system" means a system of sewage treatment tanks or tank and effluent absorption or percolation facilities serving a single dwelling or structure.

[Environmental Comm'n, Water Pollution Control Reg. § 1.14, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.085)

NAC 445A.088 "Industrial user" defined. "Industrial user" means any industry identified in the *Standard Industrial Classification Manual*, published by the United States Bureau of the Budget, under the category "Division D-Manufacturing" and the other classes of significant waste producers as, by regulation, the director or the commission deems appropriate.

[Environmental Comm'n, Water Pollution Control Reg. § 1.42, eff. 10-26-79]—(Substituted in revision for NAC 445.086)

NAC 445A.089 "Industrial wastes" defined. "Industrial wastes" means wastes resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources.

[Environmental Comm'n, Water Pollution Control Reg. § 1.15, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.087)

NAC 445A.090 "Interstate agency" defined. "Interstate agency" has the meaning ascribed to it in NRS 445A.370.

[Environmental Comm'n, Water Pollution Control Reg. §§ 1.16-1.16.2, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.088)

NAC 445A.091 "Law" defined. "Law" means NRS 445A.300 to 445A.730, inclusive.

[Environmental Comm'n, Water Pollution Control Reg. § 1.17, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.089)

NAC 445A.092 "Minor discharge" defined. "Minor discharge" means any discharge which:

1. Has a total volume of less than 50,000 gallons on every day of the year;
2. Does not affect the waters of any other state; and
3. Is not identified by the director, the regional administrator or the administrator as a discharge which is not a minor discharge.

If there is more than one discharge from a facility and the sum of the volumes of all discharges from the facility exceeds 50,000 gallons on any day of the year, then no discharge from the facility is a minor discharge as defined in this section.

[Environmental Comm'n, Water Pollution Control Reg. § 1.18, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.090)

NAC 445A.093 "Municipality" defined. "Municipality" has the meaning ascribed to it in NRS 445A.375.

[Environmental Comm'n, Water Pollution Control Reg. §§ 1.19-1.19.2, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.091)

NAC 445A.094 "NPDES" defined. "NPDES" means the National Pollutant Discharge Elimination System, which is the national system for the issuance of permits under section 402 of the Act.

[Environmental Comm'n, Water Pollution Control Reg. § 1.20, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.092)

NAC 445A.095 "Natural waters" defined. "Natural waters" means waters which have not been degraded or enhanced by actions attributable to man.

[Environmental Comm'n, Water Pollution Control Reg. § 1.21, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.093)

NAC 445A.096 "New source" defined. "New source" means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under section 306 of the Act which will be applicable to the source if the standard is thereafter promulgated in accordance with section 306 of the Act.

[Environmental Comm'n, Water Pollution Control Reg. § 1.22, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.094)

NAC 445A.097 "Origin" defined. "Origin" means all waters tributary to those waters being classified and are considered a part of the waters being classified unless otherwise designated.

[Environmental Comm'n, Water Pollution Control Reg. § 1.23, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.095)

NAC 445A.098 "Permit" defined. "Permit" means a written authorization to discharge pollutants into the waters of the state in accordance with the Act, the law and the regulations promulgated thereunder.

[Environmental Comm'n, Water Pollution Control Reg. § 1.24, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.096)

NAC 445A.099 "Person" defined. "Person" has the meaning ascribed to it in NRS 445A.390.

[Environmental Comm'n, Water Pollution Control Reg. §§ 1.25-1.25.2, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.097)

NAC 445A.100 "Point source" defined. (NRS 445A.425)

1. "Point source" has the meaning ascribed to it in NRS 445A.395.
2. The term includes wheeled, track, stationary or floating equipment used for earth-moving activity from which pollutants are or may be discharged.

[Environmental Comm'n, Water Pollution Control Reg. § 1.26, eff. 5-2-78; A 1-25-79]—(NAC A by R096-01, 1-18-2002)

NAC 445A.101 "Pollutant" defined. "Pollutant" has the meaning ascribed to it in NRS 445A.400.

[Environmental Comm'n, Water Pollution Control Reg. §§ 1.27-1.27.2, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.099)

NAC 445A.102 "Pollution" defined. "Pollution" has the meaning ascribed to it in NRS 445A.405.

[Environmental Comm'n, Water Pollution Control Reg. § 1.28, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.100)

NAC 445A.103 "Pretreatment program" defined. "Pretreatment program" means the general pretreatment regulations for existing and new sources of pollution as set forth in 40 C.F.R. §§ 403 et seq.

[Environmental Comm'n, Water Pollution Control Reg. § 1.43, eff. 10-26-79]—(Substituted in revision for NAC 445.101)

NAC 445A.104 "Pretreatment standards" defined. "Pretreatment standards" means the standards promulgated under section 307(b) of the Act.

[Environmental Comm'n, Water Pollution Control Reg. § 1.29, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.102)

NAC 445A.106 "Regional administrator" defined. "Regional administrator" means the regional administrator of the United States Environmental Protection Agency, Region IX.

[Environmental Comm'n, Water Pollution Control Reg. § 1.31, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.104)

NAC 445A.107 "Sewage" defined.

1. "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments, feedlots or other places, together with such ground water infiltration and surface water as may be present.
2. The term includes the mixture of sewage with wastes or industrial wastes.

[Environmental Comm'n, Water Pollution Control Reg. § 1.32, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.105)

NAC 445A.108 "Source" defined. "Source" means any building, structure, facility or installation from which there is or may be the discharge of pollutants.

[Environmental Comm'n, Water Pollution Control Reg. § 1.33, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.106)

NAC 445A.109 "Standard of performance" defined. "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

[Environmental Comm'n, Water Pollution Control Reg. § 1.34, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.107)

NAC 445A.110 "Toxic material" defined.

1. "Toxic material" means any pollutant or combination of pollutants which will, on the basis of information available to the administrator, cause an organism or its offspring to die or to suffer any:
   (a) Disease;
   (b) Behavioral abnormality;
   (c) Cancer;

(d) Genetic mutation;
(e) Physiological malfunction, including a malfunction in reproduction; or
(f) Physical deformation,
if that pollutant or combination of pollutants is discharged and exposed to or assimilated by the organism, whether directly from the environment or indirectly through food chains.

2. The term includes any disease-causing agent having the characteristics described in subsection 1.

[Environmental Comm'n, Water Pollution Control Reg. § 1.35, eff. 5-2-78; A 1-25-79]—(NAC A 9-26-90)—(Substituted in revision for NAC 445.108)

NAC 445A.111 "Treatment or waste treatment" defined. "Treatment or waste treatment" means the stabilization or alteration of the quality of wastewaters by physical, biological or chemical means or a combination thereof, for the purpose of reducing or eliminating adverse effects on water quality, such that the tendency of the wastes to cause any degradation in water quality or other environmental conditions is reduced or eliminated.

[Environmental Comm'n, Water Pollution Control Reg. § 1.36, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.109)

NAC 445A.112 "Treatment works" defined. "Treatment works" has the meaning ascribed to it in NRS 445A.410.

[Environmental Comm'n, Water Pollution Control Reg. §§ 1.37-1.37.5, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.110)

NAC 445A.113 "Water quality standards or limitations" defined. "Water quality standards or limitations" means any applicable state or federal water quality standards or limitations, including but not limited to water quality criteria, water use classifications, implementation plans and compliance schedules, effluent standards and limitations, prohibitions, standards of performance and pretreatment standards.

[Environmental Comm'n, Water Pollution Control Reg. § 1.38, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.111)

NAC 445A.114 "Waters of the state" defined. "Waters of the state" has the meaning ascribed to it in NRS 445A.415.

[Environmental Comm'n, Water Pollution Control Reg. § 1.39, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.112)

NAC 445A.115 "Zone of mixing" defined. "Zone of mixing" means the volume of water near the point of waste discharge within which the waste immediately mixes with the receiving water due to the momentum of the waste discharge and the difference in density between the waste and the receiving water.

[Environmental Comm'n, Water Pollution Control Reg. § 1.40, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.113)

NAC 445A.116 "Zone of passage" defined. "Zone of passage" means a continuous water route of the volume, cross-sectional area and quality necessary to allow passage of aquatic life without any significant effect produced on the aquatic life.

[Environmental Comm'n, Water Pollution Control Reg. § 1.41, eff. 5-2-78; A 1-25-79; renumbered as Art. 1 § b, 7-2-80]—(Substituted in revision for NAC 445.114)

NAC 445A.117 Severability. If any of the provisions of NAC 445A.070 to 445A.340, inclusive, or any application thereof to any person, thing or circumstance is held invalid, it is

intended that the invalidity not affect the remaining provisions or their application that can be given effect without the invalid provision or application.

[Environmental Comm'n, Water Pollution Control Reg. Art. 5, eff. 5-2-78]—(NAC A 10-3-96)

Standards for Water Quality

NAC 445A.118 Water quality criteria for total ammonia. (NRS 445A.425, 445A.520)

1. The acute criteria of water quality with regard to the concentration of total ammonia are subject to the following:

(a) The 1-hour average concentration of total ammonia, in milligrams of nitrogen per liter, for the protection of freshwater aquatic life is shown in Table 1.

(b) For cold-water fisheries, the concentration of total ammonia, in milligrams of nitrogen per liter, must not exceed the applicable acute criterion listed under "Cold-Water Fisheries" set forth in Table 1, more than once every 3 years on average.

(c) For warm-water fisheries, the concentration of total ammonia, in milligrams of nitrogen per liter, must not exceed the applicable acute criterion listed under "Warm-Water Fisheries" set forth in Table 1, more than once every 3 years on average.

2. The chronic criteria of water quality with regard to the concentration of total ammonia are subject to the following:

(a) The 30-day average concentration of total ammonia, in milligrams of nitrogen per liter, for the protection of freshwater aquatic life is shown in Tables 2 and 3.

(b) The concentration of total ammonia, in milligrams of nitrogen per liter, expressed as a 30-day average must not exceed the applicable chronic criterion listed in Tables 2 and 3 more than once every 3 years on average, and the highest 4-day average within the 30-day period must not exceed 2.5 times the applicable chronic criterion.

(c) Table 3 must not be used unless the division receives acceptable documentation of the absence of freshwater fish in early life stages.

TABLE 1: ACUTE WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR FRESHWATER AQUATIC LIFE (mg nitrogen/l)

pH	Cold-Water Fisheries[1]	Warm-Water Fisheries[2]
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.4	23.0
7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.65	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.40
8.1	4.64	6.95
8.2	3.83	5.72
8.3	3.15	4.71

TABLE 1: ACUTE WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR FRESHWATER AQUATIC LIFE (mg nitrogen/l)		
pH	Cold-Water Fisheries[1]	Warm-Water Fisheries[2]
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.885	1.32

[1] The acute water quality criteria for total ammonia for cold-water fisheries were calculated using the following equation, which may also be used to calculate unlisted values:

Acute water quality criteria for ammonia (cold-water fisheries) =

$$\left[\frac{0.275}{1+10^{7.204-\mathrm{pH}}}\right]+\left[\frac{39.0}{1+10^{\mathrm{pH}-7.204}}\right]$$

[2] The acute water quality criteria for total ammonia for warm-water fisheries were calculated using the following equation, which may also be used to calculate unlisted values:

Acute water quality criteria for ammonia (warm-water fisheries) =

$$\left[\frac{0.411}{1+10^{7.204-\mathrm{pH}}}\right]+\left[\frac{58.4}{1+10^{\mathrm{pH}-7.204}}\right]$$

TABLE 2: CHRONIC WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR WATERS WHERE FRESHWATER FISH IN EARLY LIFE STAGES MAY BE PRESENT (mg nitrogen/l)[1]										
	Temperature (°C)									
pH	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401

TABLE 2: CHRONIC WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR WATERS WHERE FRESHWATER FISH IN EARLY LIFE STAGES MAY BE PRESENT (mg nitrogen/l)[1]										
	Temperature (°C)									
pH	0	14	16	18	20	22	24	26	28	30
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

[1] The chronic water quality criteria for total ammonia for waters where freshwater fish in early life stages may be present were calculated using the following equation, which may also be used to calculate unlisted values:

Chronic water quality criteria for ammonia (fish in early life stages present) =

$$\left[\frac{0.0577}{1+10^{7.688-pH}}+\frac{2.487}{1+10^{pH-7.688}}\right] x\ MIN\left[2.85, 1.45\ x\ 10^{0.028x(25-T)}\right]$$ where:

T=°C
x means multiplication
MIN means the lesser of the two values separated by the comma

TABLE 3: CHRONIC WATER QUALITY CRITERIA FOR TOTAL AMMONIA FOR WATERS WHERE FRESHWATER FISH IN EARLY LIFE STAGES ARE ABSENT (mg nitrogen/l)[1]										
	Temperature (°C)									
pH	0-7	8	9	10	11	12	13	14	15[2]	16[2]
6.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46	6.06
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36	5.97
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25	5.86
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10	5.72
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93	5.56
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73	5.37
7.1	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49	5.15
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22	4.90
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92	4.61
7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59	4.30
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23	3.97
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85	3.61
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47	3.25
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89
7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71	2.54
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36	2.21
8.1	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03	1.91
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74	1.63
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48	1.39
8.4	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06	0.990
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892	0.836
8.7	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754	0.707
8.8	1.07	1.01	0.944	0.885	0.829	0.778	0.729	0.684	0.641	0.601
8.9	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548	0.513
9.0	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471	0.442

[1] The chronic water quality criteria for total ammonia for waters where freshwater fish in early life stages are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Chronic water quality criteria for ammonia (fish in early life stages absent) =

$$\left[\frac{0.0577}{\left(1+10^{7.688-pH}\right)}+\frac{2.487}{\left(1+10^{pH-7.688}\right)}\right] x\, 1.45\, x \left[10^{0.028x(25-MAX(T,7))}\right] \quad \text{where:}$$

T=°C

x means multiplication

MAX means the greater of the two values separated by the comma

[2] At 15°C and above, the criteria for waters where freshwater fish in early life stages are absent is the same as the criteria for waters where freshwater fish in early life stages may be present.

NOTES FOR TABLES 1, 2 AND 3:

- pH and temperature are field measurements that must be taken at the same time and location as the water sample destined for the laboratory analysis of ammonia.
- If the field-measured pH or the temperature values, or both, fall between the tabular values set forth in this section, the field-measured values or temperature values, as appropriate, must be rounded according to standard rounding procedures to the nearest tabular value to determine the applicable ammonia standard, or the equations provided in this section may be used to calculate unlisted values.

(Added to NAC by Environmental Comm'n by R099-02, eff. 12-17-2002)

NAC 445A.120 Applicability. (NRS 445A.425, 445A.520)

1. NAC 445A.120 to 445A.225, inclusive, apply to all natural streams and lakes, reservoirs or impoundments on natural streams and other specified waterways, unless excepted on the basis of existing irreparable conditions which preclude such use. Man-made waterways, unless otherwise specified, must be protected for public health and the use for which the waterways were developed.

2. The quality of any waters receiving waste discharges must be such that no impairment of the beneficial usage of water occurs as the result of the discharge. Natural water conditions may, on occasion, be outside the limits established by standards. The standards adopted in NAC 445A.120 to 445A.225, inclusive, relate to the condition of waters as affected by discharges relating to the activities of man.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1, eff. 5-2-78]—(NAC A 12-3-84; R017-99, 9-27-99)

NAC 445A.121 Standards applicable to all surface waters. (NRS 445A.425, 445A.520) The following standards are applicable to all surface waters of the state:

1. Waters must be free from substances attributable to domestic or industrial waste or other controllable sources that will settle to form sludge or bottom deposits in amounts sufficient to be unsightly, putrescent or odorous or in amounts sufficient to interfere with any beneficial use of the water.

2. Waters must be free from floating debris, oil, grease, scum and other floating materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to be unsightly or in amounts sufficient to interfere with any beneficial use of the water.

3. Waters must be free from materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to produce taste or odor in the water or detectable off-flavor in the flesh of fish or in amounts sufficient to change the existing color, turbidity or other conditions in the receiving stream to such a degree as to create a public nuisance or in amounts sufficient to interfere with any beneficial use of the water.

4. Waters must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or industrial

waste or other controllable sources at levels or combinations sufficient to be toxic to human, animal, plant or aquatic life or in amounts sufficient to interfere with any beneficial use of the water. Compliance with the provisions of this subsection may be determined in accordance with methods of testing prescribed by the department. If used as an indicator, survival of test organisms must not be significantly less in test water than in control water.

5. If toxic materials are known or suspected by the department to be present in a water, testing for toxicity may be required to determine compliance with the provisions of this section and effluent limitations. The department may specify the method of testing to be used. The failure to determine the presence of toxic materials by testing does not preclude a determination by the department, on the basis of other criteria or methods, that excessive levels of toxic materials are present.

6. Radioactive materials attributable to municipal, industrial or other controllable sources must be the minimum concentrations that are physically and economically feasible to achieve. In no case must materials exceed the limits established in the 1962 Public Health Service Drinking Water Standards (or later amendments) or 1/30th of the MPC values given for continuous occupational exposure in the "National Bureau of Standards Handbook No. 69." The concentrations in water must not result in accumulation of radioactivity in plants or animals that result in a hazard to humans or harm to aquatic life.

7. Wastes from municipal, industrial or other controllable sources containing arsenic, barium, boron, cadmium, chromium, cyanide, fluoride, lead, selenium, silver, copper and zinc that are reasonably amenable to treatment or control must not be discharged untreated or uncontrolled into the waters of Nevada. In addition, the limits for concentrations of the chemical constituents must provide water quality consistent with the mandatory requirements of the 1962 Public Health Service Drinking Water Standards.

8. The specified standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of extreme high or low flow. Where effluents are discharged to such waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsecs. a-g, eff. 5-2-78]—(NAC A 9-26-90; R017-99, 9-27-99)

NAC 445A.122 Standards applicable to beneficial uses.

1. The following standards are intended to protect both existing and designated beneficial uses and must not be used to prohibit the use of the water as authorized under Title 48 of NRS:

(a) Watering of livestock. The water must be suitable for the watering of livestock without treatment.

(b) Irrigation. The water must be suitable for irrigation without treatment.

(c) Aquatic life. The water must be suitable as a habitat for fish and other aquatic life existing in a body of water. This does not preclude the reestablishment of other fish or aquatic life.

(d) Recreation involving contact with the water. There must be no evidence of manmade pollution, floating debris, sludge accumulation or similar pollutants.

(e) Recreation not involving contact with the water. The water must be free from:

(1) Visible floating, suspended or settled solids arising from man's activities;

(2) Sludge banks;

(3) Slime infestation;

(4) Heavy growth of attached plants, blooms or high concentrations of plankton, discoloration or excessive acidity or alkalinity that leads to corrosion of boats and docks;

(5) Surfactants that foam when the water is agitated or aerated; and

(6) Excessive water temperatures.

(f) Municipal or domestic supply. The water must be capable of being treated by conventional methods of water treatment in order to comply with Nevada's drinking water standards.

(g) Industrial supply. The water must be treatable to provide a quality of water which is suitable for the intended use.

(h) Propagation of wildlife. The water must be suitable for the propagation of wildlife and waterfowl without treatment.

(i) Waters of extraordinary ecological or aesthetic value. The unique ecological or aesthetic value of the water must be maintained.

(j) Enhancement of water quality. The water must support natural enhancement or improvement of water quality in any water which is downstream.

2. This section does not entitle an appropriator to require that the source meet his particular requirements for water quality.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.1, eff. 5-2-78]—(NAC A 11-22-82; 12-3-84; 11-9-95)

NAC 445A.123 Classification and reclassification of waters.

1. Stream standards and classifications in NAC 445A.123 to 445A.127, inclusive, do not preclude the commission from establishing standards and classifications for additional public waters nor reclassifying the waters covered by those sections.

2. The commission will consider classification of a body of public water not contained in the tables in NAC 445A.123 to 445A.127, inclusive, upon a request for a permit to discharge into that body of water.

[Environmental Comm'n, Water Pollution Control Reg. § 4.2, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.121)

NAC 445A.124 Class A waters: Description; beneficial uses; quality standards.

1. Class A waters include waters or portions of waters located in areas of little human habitation, no industrial development or intensive agriculture and where the watershed is relatively undisturbed by man's activity.

2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.

3. The quality standards for class A waters are:

Item	Specifications
(a) Floating solids, sludge deposits, tastes or odor-producing substances.	None attributable to man's activities.
(b) Sewage, industrial wastes or other wastes.	None.
(c) Toxic materials, oils, deleterious substances, colored or other wastes.	None.
(d) Settleable solids.	Only amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
(e) pH.	Range between 6.5 to 8.5.
(f) Dissolved oxygen.	Must not be less than 6.0 milligrams/liter.
(g) Temperature.	Must not exceed 20°C. Allowable temperature increase above natural receiving water temperature: None.

Item	Specifications
(h) Fecal coliform.	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.
(i) Total phosphate.	Must not exceed 0.15 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.075 mg/l in any reservoir or lake, nor 0.30 mg/l in streams and other flowing waters.
(j) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

4. The waters classified as class A are:

TABLE A

Class A Waters

HR-Hydrographic region
HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City water department.
Clear Creek	8	104	From its origin to gaging station number 10-3105 located in NE 1/4 NE 1/4, section 1, T. 14 N., R. 19E., M.D.B. & M.
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City water department.

DOUGLAS COUNTY

Water	HR	HA	Description of Area Classified
Daggett Creek	8	105	From its origin to the Carson River.
Genoa Creek	8	105	From its origin to the first diversion box at the mouth of the canyon.
Sierra Canyon Creek	8	105	From its origin to the first diversion structure at the mouth of the canyon.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Angel Lake	10	177	The entire lake.
Bear Creek	3	39	From its origin to the point of diversion for the Jarbidge municipal water supply.
Brown's Gulch	3	37	From its origin to the point of diversion for the Mountain City municipal water supply.
Camp Creek	3	40	From its origin to the national forest boundary.
Canyon Creek	3	40	From its origin to the national forest boundary.
Cottonwood Creek	3	40	From its origin to the national forest boundary.
Deep Creek	3	37	From its origin to the Wildhorse Reservoir.
Green Mountain Creek	4	47	From its origin to the national forest boundary.
Hendricks Creek	3	37	From its origin to Wildhorse Reservoir.
Humboldt River (N. Fork) and tributaries in Independence Mountain Range	4	44	From its origin to the national forest boundary.
Humboldt River (S. Fork) and tributaries	4	46	From its origin to Lee.
Jack Creek	3	37	From its origin to the north line of T. 41 N., R. 52 E., M.D.B. & M.
Lamoille Creek	4	45	From its origin to gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M.
Maggie Creek tributaries	4	51	From their origin to the point where they become Maggie Creek or the point where they reach Maggie Creek.
Mary's River	4	42	From its origin to the point where the river crosses the east line of T. 42 N., R. 59 E., M.D.B. & M.
Owyhee River (E. Fork) above Wildhorse	3	37	From its origin to Wildhorse Reservoir.
Penrod Creek	3	37	From its origin including tributaries to Wildhorse Reservoir.
Pole Canyon Creek	3	37	From its origin to where it be comes Franklin River.
Secret Creek	4	43	From its origin to the national forest boundary.
Starr Creek	4	43	From its origin to the national forest boundary.
Tabor Creek	4	42	From its origin to the east line of T. 40 N., R. 60 E., M.D.B. & M.
Toyn Creek	4	47	From its origin to the national forest boundary.

Water	HR	HA	Description of Area Classified
Willow Creek	4	63	From its origin to Willow Creek Reservoir.

EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	From its origin to Tonkin Reservoir.
Roberts Creek	10	139	From its origin to Roberts Creek Reservoir.
Tonkin Reservoir	4	53	The entire reservoir.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its origin to its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M.
Blue Lakes	1	2	Entire area.
Bottle Creek	2	31	From its origin to the first point of diversion.
Dutch John Creek	4	68	The entire length.
Leonard Creek	2	28	From its origin to the first point of diversion.
Little Humboldt River (N. Fork)	4	67	From its origin to the national forest boundary.
Little Humboldt River (S. Fork)	4	67	From its origin to Elko-Humboldt county line.
Mahogany Creek	2	27	From its origin to Summit Lake.
Martin Creek	4	68, 69	From its origin to the national forest boundary.
Pole Creek	4	70	From its origin to the point of diversion of the Golconda water supply.
Quinn River	2	28, 29, 30, 33	From its origin to the confluence of the east fork and south fork.
Water Canyon Creek	4	71	From its origin to the point of diversion of the Winnemucca municipal water supply.

LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From its origin to the east boundary of United States Forest Service Big Creek Campground.
Birch Creek	10	137	From its origin to the national forest boundary.
Kingston Creek	10	137	From its origin to Groves Reservoir.

Water	HR	HA	Description of Area Classified
Lewis Creek	4	59	From its origin to the first point of diversion.
Mill Creek	4	59	From its origin to the first point of diversion.
Rock Creek	4	61, 62, 63	From its origin to Squaw Valley Ranch.
Skull Creek	10	138	From its origin to the first point of diversion.
Steiner Creek	10	138	From its origin to the first point of diversion.

MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Corey Creek	9	110C	From its origin to the point of diversion of the town of Hawthorne.
Cottonwood Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.
Rose Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.
Squaw Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.

NYE COUNTY

Water	HR	HA	Description of Area Classified
Barley Creek	10	140	From its origin to the first point of diversion.
Currant Creek	10	173	From its origin to the national forest boundary.
Jett Creek	10	137	From its origin to the national forest boundary.
Mosquito Creek	10	140	From its origin to the national forest boundary.
Peavine Creek	10	137	From its origin to the first point of diversion.
Pine Creek	10	140	From its origin to the national forest boundary.
Reese Creek	4	56	From its origin to its confluence with Indian Creek.
San Juan Creek	4	56	From its origin to the national forest boundary.
Stoneberger Creek	10	140	From its origin to the national forest boundary.
Twin River (N. Fork)	10	137	From its origin to the first point of diversion.

Water	HR	HA	Description of Area Classified
Twin River (S. Fork)	10	137	From its origin to the first point of diversion.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Star Creek	10	129	From its origin to the first point of diversion.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Boulder Reservoir	1	9	The entire reservoir.
Catnip Reservoir	1	6	The entire reservoir.
Franktown Creek	6	89	From its origin to the first irrigation diversion.
Galena Creek	6	88	From its origin to the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M.
Hunter Creek	6	91	From its origin to Hunter Lake.
Hunter Lake	6	87	The entire lake.
Nigger Creek	2	24	From its origin to the first irrigation diversion.
Ophir Creek	6	89	From its origin to old U.S. Highway 395.
Price's Lakes	6	89	The entire lake.
White's Creek	6	87	From its origin to the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Baker Creek	11	195	From its origin to the national forest boundary.
Berry Creek	10	179	From its origin to pipeline intake.
Bird Creek	10	179	From its origin to pipeline intake.
Cave Creek	10	179	Its entire length.
Cleve Creek	10	184	From its origin to the national forest boundary.
Current Creek	10	173	From its origin to the national forest boundary.
Duck Creek	10	179	From its origin to pipeline intake.
East Creek	10	179	From its origin to pipeline intake.
Goshute Creek	10	179	From its origin to the first point of diversion.
Hendry's Creek	11	195	From its origin to the national forest boundary.
Huntington Creek	4	47	From its origin to the White Pine-Elko county line.

Water	HR	HA	Description of Area Classified
Lehman Creek	11	195	From its origin to the national forest boundary.
North Creek	10	179	From its origin to pipeline intake.
Pine Creek	10	184	From its origin to the first point of diversion.
Ridge Creek	10	184	From its origin to the first point of diversion.
Silver Creek	11	195	From its origin to the national forest boundary.
Timber Creek	10	179	From its origin to pipeline intake.
White River	13	207	From its origin to the national forest boundary.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.1-4.2.1.3, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.122)

NAC 445A.125 Class B waters: Description; beneficial uses; quality standards.

1. Class B waters include waters or portions of waters which are located in areas of light or moderate human habitation, little industrial development, light-to-moderate agricultural development and where the watershed is only moderately influenced by man's activity.

2. The beneficial uses of class B water are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class B waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source, injurious to fish or wildlife or impair the waters for any other beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
(d) Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
(e) pH.	Range between 6.5 to 8.5.
(f) Dissolved oxygen.	For trout waters, not less than 6.0 milligrams/liter; for nontrout waters, not less than 5.0 milligrams/liter.

Item	Specifications
(g) Temperature.	Must not exceed 20°C for trout waters or 24°C for nontrout waters. Allowable temperature increase above natural receiving water temperatures: None.
(h) Fecal coliform.	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.
(i) Total phosphates.	Must not exceed 0.3 mg/l.
(j) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

4. The waters classified as class B are:

TABLE B

Class B Waters

HR-Hydrographic region
HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Clear Creek	8	104	From gaging station number 10-3105 located in the NE 1/4 NW 1/4, section 1, T. 14 N., R. 19 E., M.D.B. & M. to the Carson River.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Bull Run Reservoir	3	35	The entire reservoir.
Camp Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Canyon Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Cottonwood Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Green Mountain Creek	4	47	From the national forest boundary to its confluence with Corral Creek.
Humboldt River (N. Fork)	4	44	From the national forest boundary to its confluence with the Humboldt River.

Water	HR	HA	Description of Area Classified
Humboldt River (S. Fork)	4	46	From Lee to its confluence with the Humboldt River.
Huntington Creek	4	47	From White Pine county line to confluence with South Fork Humboldt River.
Jack Creek	3	36	From the north line of T. 41 N., R. 52 E., M.D.B. & M. to South Fork Owyhee River.
Lamoille Creek	4	45	From gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M. to its confluence with the Humboldt River.
Maggie Creek	4	51	From where it is formed by tributaries to its confluence with Jack Creek.
Mary's River	4	42	From the east line of T. 42 N., R. 59 E., M.D.B. & M. to its confluence with the Humboldt River.
Ruby Marsh	10	176	The entire area.
Salmon Falls Creek (N. Fork)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Salmon Falls Creek (S. Fork)	3	40	From the national forest boundary to its confluence with the north fork of Salmon Falls Creek.
76 Creek	3	38	Its entire length.
Secret Creek	4	43	From the national forest boundary to the Humboldt River.
Starr Creek	4	43	From the national forest boundary to the Humboldt River.
Wildhorse Reservoir	3	37	The entire reservoir.
Willow Creek Reservoir	4	63	The entire reservoir.
Wilson Reservoir	3	35	The entire reservoir.

EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	Below Tonkin Reservoir.
Fish Springs Pond	10	155	The entire pond.
Roberts Creek	10	139	Below Roberts Creek Reservoir.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M. to Bilk Creek Reservoir.
Bilk Creek Reservoir	2	29	The entire reservoir.
Knott Creek Reservoir	1	3	The entire reservoir.

Water	HR	HA	Description of Area Classified
Little Humboldt River (N. Fork)	4	67	From the national forest boundary to its confluence with the south fork of the Little Humboldt River.
Little Humboldt River (S. Fork)	4	67	From the Elko-Humboldt county line to its confluence with the north fork of the Little Humboldt River.
Martin Creek	4	68, 69	From the national forest boundary downstream to the first diversion in T. 42 N., R. 40 E., M.D.B. & M.
Onion Valley Reservoir	1	2	The entire reservoir.
Quinn River	2	28, 29, 30, 33	From the point of confluence of the east fork and south fork to the Ft. McDermitt Indian Reservation diversion dam.
Summit Lake	2	27	The entire lake.

LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From the east boundary of the United States Forest Service Big Creek Campground to the first diversion dam.
Birch Creek	10	137	From the national forest boundary to the first diversion dam.
Groves Lake	10	137	The entire lake.
Iowa Canyon Reservoir	4	55	The entire reservoir.
Kingston Creek	10	137	Below Groves Lake.
Reese River	4	56, 58, 59	From its confluence with Indian Creek to old U.S. Highway 50.
Willow Creek Reservoir	10	131	The entire reservoir.

LINCOLN COUNTY

Water	HR	HA	Description of Area Classified
Clover Creek	13	204	From its origin to the point where it crosses the east range line of T. 4 S., R. 67 E., M.D.B. & M.
Eagle Valley Creek	13	200, 201	From its headwaters to Eagle Valley Reservoir.
Eagle Valley Reservoir	13	201	The entire reservoir.

NYE COUNTY

Water	HR	HA	Description of Area Classified
Adams McGill Reservoir	13	207	The entire reservoir.
Currant Creek	10	173	From the national forest boundary to Currant.
Dacey Reservoir	13	207	The entire reservoir.

Water	HR	HA	Description of Area Classified
Hay Meadow Reservoir	13	207	The entire reservoir.
Reese River	4	56	From its confluence with Indian Creek to old U.S. Highway 50.
Sunnyside Creek	13	207	From its origin to the Adams McGill Reservoir.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Davis Lake	6	89	The entire lake.
Franktown Creek	4	89	From the first irrigation diversion to Washoe Lake.
Galena Creek	6	88	From the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M. to gaging station number 10-348900 located in the SW 1/4 SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M.
Hobart Reservoir and tributaries	6	89	The entire system.
Hunter Creek	6	91	From Hunter Lake to its confluence with the Truckee River.
Ophir Creek	6	89	From old U.S. Highway 395 to Washoe Lake.
Squaw Creek Reservoir	2	21	The entire reservoir.
Wall Canyon Reservoir	1	16	The entire reservoir.
White's Creek	6	87	Below the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Cave Lake	10	179	The entire lake.
Illipah Reservoir	10	174	The entire reservoir.
Silver Creek Reservoir	11	195	The entire reservoir.
White River	13	207	From the national forest boundary to its confluence with Ellison Creek.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.2-4.2.2.3, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.123)

NAC 445A.126 Class C waters: Description; beneficial uses; quality standards.

1. Class C waters include waters or portions of waters which are located in areas of moderate-to-urban human habitation, where industrial development is present in moderate amounts, agricultural practices are intensive and where the watershed is considerably altered by man's activity.

2. The beneficial uses of class C water are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class C waters are:

Item	Specifications
(a) Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
(d) pH.	Range between 6.5 to 8.5.
(e) Dissolved oxygen.	For waters with trout, not less than 6.0 mg/l; for waters without trout, not less than 5.0 mg/l.
(f) Temperature.	Must not exceed 20°C for waters with trout or 34°C for waters without trout. Allowable temperature increase above normal receiving water temperature: 3°C.
(g) Fecal coliform.	The more stringent of the following apply:

(1) The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

(2) The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

(3) The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.

(h) Total phosphates.	Must not exceed 1.0 mg/l.
(i) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

4. The waters classified as class C waters are:

TABLE C

Class C Waters

HR-Hydrographic region
HA-Hydrographic area

CHURCHILL COUNTY

Water	HR	HA	Description of Area Classified
Diagonal Drain	8	101	Its entire length.
Harmon Reservoir	8	101	The entire reservoir.
Indian Lakes	8	101	All the lakes, including Upper Lake, Likes Lake, Papoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.
Lower Carson River	8	101	From Lahontan Reservoir to Carson Sink (the natural channel).
Rattlesnake Reservoir	8	101	Also known as S-Line Reservoir, the entire reservoir.
South Carson Lake	8	101	Also known as Government Pasture or the Greenhead Gun Club, the entire lake.
Stillwater Marsh	8	101	All that area of Stillwater Marsh east of Westside Road and north of the community of Stillwater.
V-Line Canal	8	101	From the Carson diversion dam to its division into the S & L Canals.

CLARK COUNTY

Water	HR	HA	Description of Area Classified
Bowman Reservoir	13	220	The entire reservoir.
Muddy (Moapa) River	13	219	From its origin (but not including source springs) to its confluence with Lake Mead.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Maggie Creek	4	51	From its confluence with Jack Creek to the Humboldt River.

ESMERALDA COUNTY

Water	HR	HA	Description of Area Classified
Fish Lake	10	117	The entire lake.

EUREKA COUNTY

Water	HR	HA	Description of Area Classified
J.D. Ponds	4	53	The entire area.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Little Humboldt River	4	67	Its entire length.

LANDER COUNTY

Water	HR	HA	Description of Area Classified
Reese River	4	56, 58, 59	North of old U.S. Highway 50.
Rock Creek	4	61, 62, 63	Below Squaw Valley Ranch.

LINCOLN COUNTY

Water	HR	HA	Description of Area Classified
Echo Canyon Reservoir	13	199	The entire reservoir.
Nesbitt Lake	13	209	The entire lake.
Pahranagat Reservoir	13	209	The entire reservoir.
Schroeder Reservoir	13	222	The entire reservoir.

LYON COUNTY

Water	HR	HA	Description of Area Classified
Mason Wildlife Area	9	109	All surface water impoundments.

MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Weber Reservoir	9	110	Entire reservoir.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Humboldt River	4	73	From Woolsey to Rodgers Dam.

STOREY COUNTY

Water	HR	HA	Description of Area Classified
Tracy Pond	6	83	The entire area.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Galena Creek	6	88	From gaging station number 10-348900 located in the SW 1/4, SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek.
Steamboat Creek	6	87, 88, 89	From Little Washoe Lake to gaging station number 10-349300 located in the S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M.
Washoe Lakes	6	89	The entire lakes.

WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Comins Reservoir	10	179	The entire reservoir.
Gleason Creek	10	179	From its origin to State Highway 44.
Snake Creek	11	195	From control point above fish hatchery to the Nevada-Utah state line.
Willow Reservoir	10	179	The entire reservoir.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.3-4.2.3.2, eff. 5-2-78; § 4.2.3.3, eff. 5-2-78; A 1-25-79]—(NAC A 12-3-84; 9-13-85; 5-27-93)—(Substituted in revision for NAC 445.124)

NAC 445A.127 Class D waters: Description; beneficial uses; quality standards.

1. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

2. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.

3. The quality standards for class D waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
(d) pH.	Range between 6.0 and 9.0.
(e) Dissolved oxygen.	Not less than 3.0.

4. The waters classified as class D waters are:

TABLE D

Class D Waters

HR-Hydrographic region
HA-Hydrographic area

CHURCHILL COUNTY

Water	HR	HA	Description of Area Classified
Stillwater Marsh	8	101	All that area of Stillwater Marsh not designated as class C.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Quinn River	2	33	From the Idaho-Nevada state line in section 31, T. 48 N., R. 38 E., to the confluence with the main tributary of the Quinn River at the south section line of section 17, T. 47 N., R. 38 E.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Humboldt River	4	73	Rodgers Dam to and including Humboldt Sink.

STOREY COUNTY

Water	HR	HA	Description of Area Classified
Lagomarsino Creek	6	83	The entire length.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Steamboat Creek	6	87	From gaging station number 10-349300 located in S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M. to its confluence with the Truckee River.

WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Gleason Creek	10	179	From State Highway 44 to its confluence with Murray Creek.
Murray Creek	10	179	From its confluence with Gleason Creek to the south line of section 35, T. 17 N., R. 63 E., M.D.B. & M.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.4, 4.2.4.2 & 4.2.4.3, eff. 5-2-78; § 4.2.4.1, eff. 5-2-78; A 11-21-79]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.125)

NAC 445A.128 Definitions. As used in NAC 445A.143 to 445A.225, inclusive, the terms and symbols defined in NAC 445A.129 to 445A.142, inclusive, have the meanings ascribed to them in those sections.
(Added to NAC by Environmental Comm'n, eff. 6-29-84; A 11-9-95)

NAC 445A.129 "A-Avg." or "A.A." defined. "A-Avg." or "A.A." means annual average.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1282)

NAC 445A.130 "Δ" defined. "Δ" means the difference between two points.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1284)

NAC 445A.131 "Δ pH" defined. "Δ pH" means the change in pH.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1286)

NAC 445A.132 "Δ T" defined. "Δ T" means the change in temperature.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1288)

NAC 445A.133 "Geometric mean" defined. "Geometric mean" means the mean of n positive numbers obtained by taking the nth root of the product of the numbers.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.129)

NAC 445A.134 "mg/l" defined. "mg/l" means the concentration of a substance, in milligrams, present in one liter of the water.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1292)

NAC 445A.135 "No./100ml" defined. "No./100ml" means the number of organisms present in 100 milliliters of the water.
(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1294)

NAC 445A.136 "NTU" defined. "NTU" means nephelometric turbidity units, a measure of turbidity.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1296)

NAC 445A.137 "PCU" defined. "PCU" means platinum cobalt unit, a measure of color.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1298)

NAC 445A.138 "pH unit" defined. "pH unit" means the negative log of the hydrogen ion concentration.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.130)

NAC 445A.139 "SAR" defined. "SAR" means sodium adsorption ratio.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1302)

NAC 445A.140 "S.V." defined. "S.V." means single value.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1304)

NAC 445A.141 "≥" defined. "≥" means greater than or equal to.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1306)

NAC 445A.142 "≤" defined. "≤" means less than or equal to.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1308)

NAC 445A.143 Cooperation regarding Colorado River; salinity standards. (NRS 445A.425, 445A.520)

1. The State of Nevada will cooperate with the other Colorado River Basin states and the Federal Government to support and carry out the conclusions and recommendations adopted April 27, 1972, by the reconvened 7th session of the conference in the matter of pollution of interstate waters of the Colorado River and its tributaries.

2. Pursuant to subsection 1, the flow weighted annual average concentrations for total dissolved solids in mg/l at the three lower main stem stations of the Colorado River are as follows:

Below Hoover Dam 723
Below Parker Dam.....747
Imperial Dam 879

[Environmental Comm'n, Water Pollution Control Reg. Appendix B, eff. 5-2-78]—(NAC A 12-3-84; R017-99, 9-27-99)

NAC 445A.144 Standards for toxic materials applicable to designated waters. Except as otherwise provided in this section, the following standards for toxic materials are applicable to the waters specified in NAC 445A.123 to 445A.127, inclusive, and 445A.145 to 445A.225, inclusive. If the standards are exceeded at a site and are not economically controllable, the commission will review and adjust the standards for the site.

Chemical	Municipal or Domestic Supply (µg/l)	Aquatic Life (µg/l)	Irrigation (µg/l)	Watering of Livestock (µg/l)
Antimony	146[a]	-	-	-
Arsenic	50[b]	-	100[c]	200[d]
Arsenic (III)	-	-	-	-
1-hour average	-	342[a,g]	-	-
96-hour average	-	180[a,g]	-	-
Barium	2,000[b]	-	-	-
Beryllium	0[a]	-	100[c]	-
hardness <75 mg/l	-	-	-	-
hardness >= 75 mg/l	-	-	-	-
Boron	-	-	750[a]	5,000[d]
Cadmium	5[b]	-	10[d]	50[d]
1-hour average	-	0.85exp{1.128 ln(H)-3.828}[a,g]	-	-
96-hour average	-	0.85exp{0.7852 ln(H)-3.490}[a,g]	-	-
Chromium (total)	100[b]	-	100[d]	1,000[d]
Chromium (VI)	-	-	-	-
1-hour average	-	15[a,g]	-	-
96-hour average	-	10[a,g]	-	-
Chromium (III)	-	-	-	-
1-hour average	-	0.85exp{0.8190 ln(H)+3.688}[a,g]	-	-
96-hour average	-	0.85exp{0.8190 ln(H)+1.561}[a,g]	-	-
Copper	-	-	200[d]	500[d]
1-hour average	-	0.85exp{0.9422 ln(H)-1.464}[a,g]	-	-
96-hour average	-	0.85exp{0.8545 ln(H)-1.465}[a,g]	-	-
Cyanide	200[a]	-	-	-
1-hour average	-	22[a]	-	-
96-hour average	-	5.2[a]	-	-
Fluoride	-	-	1,000[d]	2,000[d]
Iron	-	1,000[a]	5,000[d]	-
Lead	50[a,b]	-	5,000[d]	100[d]
1-hour average	-	0.50exp{1.273 ln(H)-1.460}[a,g]	-	-
96-hour average	-	0.25exp{1.273 ln(H)-4.705}[a,g]	-	-
Manganese	-	-	200[d]	-
Mercury	2[b]	-	-	10[d]
1-hour average	-	2.0[a,g]	-	-
96-hour average	-	0.012[a]	-	-
Molybdenum	-	19[e]	-	-
Nickel	13.4[a]	-	200[d]	-
1-hour average	-	0.85exp{0.8460 ln(H)+3.3612}[a,g]	-	-
96-hour average	-	0.85exp{0.8460 ln(H)+1.1645}[a,g]	-	-
Selenium	50[b]	-	20[d]	50[d]
1-hour average	-	20[a]	-	-
96-hour average	-	5.0[a]	-	-
Silver	-	0.85exp{1.72 ln(H)-6.52}[a,g]	-	-
Sulfide				
undissociated hydrogen sulfide	-	2[a]	-	-
Thallium	13[a]	-	-	-
Zinc	-	-	2,000[d]	25,000[d]
1-hour average	-	0.85exp{0.8473 ln(H)+0.8604}[a,g]	-	-
96-hour average	-	0.85exp{0.8473 ln(H)+0.7614}[a,g]	-	-
Acrolein	320[a]	-	-	-
Aldrin	0[a]	3[a]	-	-
Chlordane	0[a]	2.4[a]	-	-
24-hour average	-	0.0043[a]	-	-
2,4-D	100[a,b]	-	-	-
DDT & metabolites	0[a]	1.1[a]	-	-
24-hour average	-	0.0010[a]	-	-
Demeton	-	0.1[a]	-	-
Dieldrin	0[a]	2.5[a]	-	-
24-hour average	-	0.0019[a]	-	-

Chemical	Municipal or Domestic Supply (µg/l)	Aquatic Life (µg/l)	Irrigation (µg/l)	Watering of Livestock (µg/l)
Endosulfan	75[a]	0.22[a]	-	-
24-hour average	-	0.056[a]	-	-
Endrin	0.2[b]	0.18[a]	-	-
24-hour average	-	0.0023[a]	-	-
Guthion	-	0.01[a]	-	-
Heptachlor	-	0.52[a]	-	-
24-hour average	-	0.0038[a]	-	-
Lindane	4[b]	2.0[a]	-	-
24-hour average	-	0.080[a]	-	-
Malathion	-	0.1[a]	-	-
Methoxychlor	100[a,b]	0.03[a]	-	-
Mirex	0[a]	0.001[a]	-	-
Parathion	-	-	-	-
1-hour average	-	0.065[a]	-	-
96-hour average	-	0.013[a]	-	-
Silvex (2,4,5-TP)	10[a,b]	-	-	-
Toxaphene	5[b]	-	-	-
1-hour average	-	0.73[a]	-	-
96-hour average	-	0.0002[a]	-	-
Benzene	5[b]	-	-	-
Monochlorobenzene	488[a]	-	-	-
m-dichlorobenzene	400[a]	-	-	-
o-dichlorobenzene	400[a]	-	-	-
p-dichlorobenzene	75[b]	-	-	-
Ethylbenzene	1,400[a]	-	-	-
Nitrobenzene	19,800[a]	-	-	-
1,2-dichloroethane	5[b]	-	-	-
1,1,1-trichloroethane (TCA)	200[b]	-	-	-
Bis (2-chloroisopropyl) ether	34.7[a]	-	-	-
Chloroethylene (vinyl chloride)	2[b]	-	-	-
1,1-dichloroethylene	7[b]	-	-	-
Trichloroethylene (TCE)	5[b]	-	-	-
Hexachlorocyclopentadiene	206[a]	-	-	-
Isophorone	5,200[a]	-	-	-
Trihalomethanes (total)[f]	100[b]	-	-	-
Tetrachloromethane (carbon tetrachloride)	5[b]	-	-	-
Phenol	3,500[a]	-	-	-
2,4-dichlorophenol	3,090[a]	-	-	-
Pentachlorophenol	1,010[a]	-	-	-
1-hour average	-	exp{1.005 (pH)-4.830}[a]	-	-
96-hour average	-	exp{1.005 (pH)-5.290}[a]	-	-
Dinitrophenols	70[a]	-	-	-
4,6-dinitro-2-methylphenol	13.4[a]	-	-	-
Dibutyl phthalate	34,000[a]	-	-	-
Diethyl phthalate	350,000[a]	-	-	-
Dimethyl phthalate	313,000[a]	-	-	-
Di-2-ethylhexyl phthalate	15,000[a]	-	-	-
Polychlorinated biphenyls (PCBs)	0[a]	-	-	-
24-hour average	-	0.014[a]	-	-
Fluoranthene (polynuclear aromatic hydrocarbon)	42[a]	-	-	-
Dichloropropenes	87[a]	-	-	-
Toluene	14,300[a]	-	-	-

Footnotes and References

(1) Single concentration limits and 24-hour average concentration limits must not be exceeded. One-hour average and 96-hour average concentration limits may be exceeded only once every 3 years. See reference a.

(2) Hardness (H) is expressed as mg/1 $CaCO_3$.

(3) If a criterion is less than the detection limit of a method that is acceptable to the division, laboratory results which show that the substance was not detected will be deemed to show compliance with the standard unless other information indicates that the substance may be present.

(4) If a standard does not exist for each designated beneficial use, a person who plans to discharge waste must demonstrate that no adverse effect will occur to a designated beneficial use. If the discharge of a substance will lower the quality of the water, a person who plans to discharge waste must meet the requirements of NRS 445A.565.

(5) The standards for metals are expressed as total recoverable, unless otherwise noted.

a. U.S. Environmental Protection Agency, Pub. No. EPA 440/5-86-001, Quality Criteria for Water (Gold Book) (1986).

b. Federal Maximum Contaminant Level (MCL), 40 C.F.R. §§ 141.11, 141.12, 141.61 and 141.62 (1992).

c. U.S. Environmental Protection Agency, Pub. No. EPA 440/9-76-023, Quality Criteria for Water (Red Book) (1976).

d. National Academy of Sciences, Water Quality Criteria (Blue Book) (1972).

e. California State Water Resources Control Board, Regulation of Agricultural Drainage to the San Joaquin River: Appendix D, Water Quality Criteria (March 1988 revision).

f. The criteria for trihalomethanes (total) is the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform) and trichloromethane (chloroform). See reference b.

g. This standard applies to the dissolved fraction.

(Added to NAC by Environmental Comm'n, eff. 9-13-85; A 9-25-90; 7-5-94; 11-29-95)

NAC 445A.145 Control points: Prescription and applicability of numerical standards for water quality; designation of beneficial uses.

1. Control points are locations where water quality criteria are specified. Criteria so specified apply to all surface waters of Nevada in the watershed upstream from the control point or to the next upstream control point or to the next water named in NAC 445A.123.

2. If there are no control points downstream from a particular control point, the criteria for that control point also apply to all surface waters of Nevada in the watershed downstream of the control point or to the next water named in NAC 445A.123.

3. Each standard is set to protect the beneficial use which is most sensitive with respect to that particular standard.

4. NAC 445A.147 to 445A.212, inclusive, prescribe numerical standards for water quality and designate beneficial uses at particular control points.

[Environmental Comm'n, Water Pollution Control Reg. § 4.2.5, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-22-82; 9-25-90)—(Substituted in revision for NAC 445.134)

NAC 445A.146 Beneficial uses for Carson River. The standards for water quality for the Carson River from Lahontan Dam to the state line are prescribed in NAC 445A.147 to 445A.158, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life, more specifically, the species of major concern are:

(a) West Fork at the state line, rainbow trout and brown trout.

(b) Bryant Creek, rainbow trout and brown trout.

(c) East Fork Carson at the state line, rainbow trout and brown trout.

(d) From the East Fork Carson at the state line to near Highway 395 south of Gardnerville, rainbow trout and brown trout.

(e) From the East Fork Carson near Highway 395 south of Gardnerville to Muller Lane, rainbow trout and brown trout.

(f) From the Carson River at Genoa Lane to the East Fork Carson at Muller Lane and to the West Fork Carson at the state line, catfish, rainbow trout and brown trout.

(g) From the Carson River at Cradlebaugh Bridge to Genoa Lane, catfish, rainbow trout and brown trout.

(h) From the Carson River at Mexican Ditch Gage to Cradlebaugh Bridge, rainbow trout and brown trout.

(i) From the Carson River near New Empire to Mexican Ditch Gage, smallmouth bass, rainbow trout and brown trout.

(j) From the Carson River at Dayton Bridge to New Empire, walleye, channel catfish and white bass.

(k) From the Carson River at Weeks to the Dayton Bridge, walleye, channel catfish and white bass.

(l) From Lake Lahontan at Lahontan Dam to Weeks, walleye, channel catfish and white bass.

(Added to NAC by Environmental Comm'n, eff. 12-3-84)—(Substituted in revision for NAC 445.13405)

NAC 445A.147 Carson River: West Fork at the state line. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at the West Fork at the state line. The limits of this table apply only to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT[a]	 ΔT = 0°C	Nov.-May : ≤13°C June : ≤17°C July : ≤21°C Aug.-Oct. : ≤22°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.4 - 8.4 —	 S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.016 S.V. : ≤.033	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	A-Avg. : ≤0.4 S.V. : ≤0.5	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥5.0 Jun.-Oct. : ≥6.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : ≤15 —	 S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	A-Avg. : ≤3 S.V. : ≤5	 S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤70 S.V. : ≤95	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤3 S.V. : ≤5	 S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— S.V. : ≤4	 S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤1	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤105 —	 ≤200/400c	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.148 Carson River: Bryant Creek near the state line. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Bryant Creek near the state line. The limits of this table apply only to Bryant Creek near the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-May : ≤13°C June : ≤17°C July : ≤21°C Aug.-Oct. : ≤22°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.036 S.V. : ≤.05	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	A-Avg. : ≤0.6 S.V. : ≤1.0	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤10	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤375 S.V. : ≤420	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤6 S.V. : ≤7	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤1	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤50 S.V. : ≤90	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 2, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.149 Carson River: East Fork at the state line. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at the East Fork at the state line. The limits of this table apply only to the East Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT[a]	 ΔT = 0°C	Nov.-May : ≤13°C June : ≤17°C July : ≤21°C Aug.-Oct. : ≤22°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.03 S.V. : ≤.065	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.5 S.V. : ≤1.1	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	A-Avg. : ≤5 S.V. : ≤8	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤145 S.V. : ≤185	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤3 S.V. : ≤5	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— S.V. : ≤3	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤40 S.V. : ≤60	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 3, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.150 Carson River: East Fork at Highway 395, south of Gardnerville. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point for East Fork at Highway 395, South of Gardnerville (Riverview). The limits of this table apply from Riverview Mobile Home Park to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-May : ≤13°C June : ≤17°C July : ≤21°C Aug.-Oct. : ≤22°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.5 - 8.6 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.4 S.V. : ≤0.5	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤120 S.V. : ≤175	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤6 S.V. : ≤10	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤20 S.V. : ≤85	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 4, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.151 Carson River: East Fork at Muller Lane. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at the East Fork at Muller Lane. The limits of this table apply only from East Fork at Muller Lane to Highway 395, South of Gardnerville (Riverview Mobile Home Park).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT[a]	 ΔT = 0°C	Nov.-May : ≤13°C June : ≤17°C July : ≤21°C Aug.-Oct. : ≤22°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.4 - 8.7 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.5 S.V. : ≤0.8	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤180 S.V. : ≤205	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤8 S.V. : ≤10	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform- No./100 ml	A.G.M. : ≤50 —	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 5, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.152 Carson River at Genoa Lane. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Genoa Lane. The limits of this table apply from Genoa Lane to the East Fork at Muller Lane and to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-June : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.4 - 8.5 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.8 S.V. : ≤1.3	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia as (N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-Apr. : ≥6.0 May-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤165 S.V. : ≤220	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤8 S.V. : ≤12	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤180 —	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E Coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 5A, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.153 Carson River at Cradlebaugh Bridge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Cradlebaugh Bridge. The limits of this table apply from Cradlebaugh Bridge to Genoa Lane.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-June : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.5 - 8.4 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤.85 S.V. : ≤1.2	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-Apr. : ≥6.0 May-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤180 S.V. : ≤230	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤8 S.V. : ≤15	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	— —	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 6, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.154 Carson River at Mexican Ditch Gage. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Mexican Ditch Gage. The limits of this table apply from Mexican Ditch Gage to Highway 395, at Cradlebaugh Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-June : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.4 - 8.5 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.8 S.V. : ≤1.3	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-Apr. : ≥6.0 May-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤285 S.V. : ≤360	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤17 S.V. : ≤23	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg. : ≤24 S.V. : ≤100	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤110 S.V. : ≤295	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 6A, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.155 Carson River near New Empire. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point near New Empire. The limits of this table apply from New Empire to the Mexican Ditch Gage.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-May : ≤18°C Jun.Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.4 - 8.4 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤1.3 S.V. : ≤1.7	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤260 S.V. : ≤375	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤13 S.V. : ≤24	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	— —	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 7, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.156 Carson River at Dayton Bridge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Dayton Bridge. The limits of this table apply from Dayton Bridge to New Empire.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Mar. : ≤11°C Apr.-Jun. : ≤24°C Jul.-Oct. : ≤28°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.5 - 8.6 —	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.1	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤1.2 S.V.: ≤1.6	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.1.0	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	A-Avg.: ≤12 S.V.: ≤25	S.V. : ≤50	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg.: ≤250 S.V.: ≤400	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg.: ≤10 S.V.: ≤18	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	— —	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg.: ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M.: ≤50 S.V.: ≤280	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 12-3-84; A 9-15-94; R099-02, 12-17-2002)

NAC 445A.157 Carson River at Weeks. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Weeks (Ft. Churchill). The limits of this table apply from the U.S. Highway 95 Bridge at Weeks to the Dayton Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Mar. : ≤11°C Apr.-Jun. : ≤24°C Jul.-Oct. : ≤28°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.5 - 8.5 —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg. : ≤0.1	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.6 S.V. : ≤1.1	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.1.0	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤80	Aquatic life.[b]
Turbidity - NTU	A-Avg. : ≤25 —	S.V. : ≤50	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤250 S.V. : ≤380	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤10 S.V. : ≤18	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg. : ≤100 S.V. : ≤140	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤90 S.V. : ≤240	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 8, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94; R099-02, 12-17-2002)

NAC 445A.158 Carson River at Lahontan Dam. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Carson River

Control Point at Lahontan Dam. The limits of this table apply from Lahontan Dam to the U.S. Highway 95 bridge at Weeks (Ft. Churchill).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Mar. : ≤11°C Apr.-Jun. : ≤24°C Jul.-Oct. : ≤28°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	S.V. : ≤0.06	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤1.3 S.V.: ≤1.7	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.1.0	Aquatic life,[b] municipal or domestic supply,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l		S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	A-Avg.: ≤15 S.V.: ≤27	S.V. : ≤50	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.[b]
Total Dissolved Solids - mg/l	A-Avg.: ≤175 S.V.: ≤225	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg.: ≤9 S.V.: ≤15	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg.: ≤35 S.V.: ≤50	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg.: ≤2	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤25 S.V.: ≤75	≤200/400[c]	Recreation involving contact with the water[b], recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤235	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 9, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; R099-02, 12-17-2002)

NAC 445A.159 Beneficial uses for Walker River. (NRS 445A.425, 445A.520) The standards of water quality for the Walker River from Walker Lake to the state line are prescribed in NAC 445A.160 to 445A.169, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with the water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life, and more specifically, the species of major concern are:

(a) In the West Walker River at the state line, mountain whitefish, rainbow trout and brown trout;

(b) In Topaz Lake, rainbow trout, cutthroat trout, brown trout, kokone salmon and silver salmon;

(c) In the West Walker River from Wellington to the state line, mountain whitefish, rainbow trout and brown trout;

(d) In the West Walker River from its confluence with the East Walker River to Wellington, brown trout and rainbow trout;

(e) In Sweetwater Creek, mountain whitefish, brown trout, brook trout and rainbow trout;

(f) In the East Walker River at the state line, mountain whitefish, rainbow trout and brown trout;

(g) In the East Walker River from Bridge B-1475 to the state line, mountain whitefish, rainbow trout and brown trout;

(h) In the East Walker River from its confluence with the West Walker River to Bridge B-1475, brown trout and rainbow trout;

(i) In the Walker River from Weber Reservoir to the confluence of the East Walker River and West Walker River, channel catfish and largemouth bass;

(j) In the Walker River from the inlet to Walker Lake to Weber Reservoir, channel catfish, largemouth bass and, from February through June when an adequate flow exists, adult Lahontan cutthroat trout and adult rainbow trout; and

(k) In Desert Creek, brown trout, brook trout and rainbow trout.

(Added to NAC by Environmental Comm'n, eff. 9-13-85; A by R128-01, 1-18-2002)

NAC 445A.160 West Walker River at the state line. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
West Walker River

Control Point at the West Walker River at the state line. The limits of this table apply only to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	July-Oct.: ≤22°C ΔT = 0°C[a]	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5-9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average	— —	≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤0.6 mg/l ≤0.9 mg/l	Nitrate: ≤10 mg/l Nitrite: ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Annual Average Single Value	≤60 mg/l	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	≤26 PCU	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤165 mg/l ≤220 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤15 mg/l ≤20 mg/l	≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤25 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 10, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.161 Topaz Lake. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Topaz Lake

Control Point at Topaz Lake. The limits of this table apply at various points in Topaz Lake.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5-9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	 — —	 ≤0.05 mg/l ≤0.10 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤0.6 mg/l ≤1.0 mg/l	 Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Propagation of aquatic life.
Dissolved Oxygen Single Value	 — —	Nov.-May: ≥6.0 mg/l June-Oct.[b]: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Annual Average Single Value	 ≤0.6 mg/l ≤9.0 mg/l	 ≤25 mg/l	Propagation of aquatic life.
Turbidity Annual Average Single Value	 ≤3.0 NTU ≤5.0 NTU	c	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	 ≤21 PCU	 ≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	 ≤105 mg/l ≤120 mg/l	 ≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	 ≤7 mg/l ≤10 mg/l	 — ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	 ≤25 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	— 	 ≤8	Irrigation, and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤235	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The dissolved oxygen standard from June to October applies only to the epilimnion.
c. Increase in turbidity must not be more than 10 NTU above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 11, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.162 West Walker River near Wellington. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
West Walker River

Control Point at the West Walker River near Wellington. The limits of this table apply from the West Walker River near Wellington to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0°C$[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C $\Delta T \leq 2°C$[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	— —	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	≤0.07 mg/l ≤0.10 mg/l	≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤0.6 mg/l ≤1.0 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : ≥6.0 mg/l Jun.-Oct. : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤175 mg/l ≤260 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤16 mg/l ≤30 mg/l	— ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	≤8	Irrigation, and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 12, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.163 West Walker River above confluence with East Walker River at Nordyke Road. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
West Walker River

Control Point at the West Walker River above the confluence with the East Walker River at Nordyke Road. The limits of this table apply to the West Walker River above its confluence with the East Walker River to the control point mentioned in NAC 445A.162 (near Wellington).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	 ≤0.15 mg/l	 ≤0.10 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤1.0 mg/l ≤1.2 mg/l	 Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	 — —	Nov.-May : ≥6.0 mg/l Jun.-Oct. : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	 —	 ≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	≤46 PCU	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	 ≤330 mg/l ≤425 mg/l	 ≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	 ≤22 mg/l ≤28 mg/l	 — ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	 ≤74 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	 —	 ≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 13, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.164 Sweetwater Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Sweetwater Creek

Control Point at Sweetwater Creek. The limits of this table apply to Sweetwater Creek from its confluence with the East Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrate ≤0.25 mg/l ≤0.45 mg/l	 Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	 — —	Nov.-May : ≥6.0 mg/l Jun.-Oct. : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	 ≤45 mg/l	 ≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	 ≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	 ≤220 mg/l ≤300 mg/l	 ≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	 ≤5 mg/l ≤7 mg/l	 — ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	 ≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	 —	 ≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 14, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.165 East Walker River at the state line. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
East Walker River

Control Point at the East Walker River at the state line. The limits of this table apply only to the East Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average	—	≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤0.8 mg/l ≤1.4 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : ≥6.0 mg/l Jun.-Oct. : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	≤30 mg/l	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤175 mg/l ≤210 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤5 mg/l ≤7 mg/l	— ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤26 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	≤2	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli – No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 16, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.1655 East Walker River at Bridge B-1475. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
East Walker River at Bridge B-1475

Control Point at the East Walker River at Bridge B-1475. The limits of this table apply only from the East Walker River at Bridge B-1475 to the East Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0°C$[a]	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C $\Delta T \leq 2°C$[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH: ± 0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average	— —	≤0.10 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤0.9 mg/l ≤1.7mg/l	Nitrate: ≤10 mg/l Nitrite: ≤ .06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	—	Nov.-May: ≥6.0 mg/l June-Oct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤320 mg/l ≤390 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤13 mg/l ≤19 mg/l	≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n by R128-01, eff. 1-18-2002; A by R099-02, 12-17-2002)

NAC 445A.166 East Walker River South of Yerington. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
East Walker River

Control Point at the East Walker River South of Yerington above the confluence with the West Walker River (Nordyke Road). The limits of this table apply to the East Walker River South of Yerington above its confluence with the West Walker River to the East Walker River at Bridge B-1475.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	 —	 ≤0.16 mg/l ≤0.39 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤0.9 mg/l ≤1.7 mg/l	 Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	 — —	Nov.-May : ≥6.0 mg/l Jun.-Oct. :≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	 —	 ≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	 —	 b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	— 	 ≤75 PCU	Municipal or domestic supply, or both, propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	 ≤320 mg/l ≤390 mg/l	 ≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	 ≤13 mg/l ≤19 mg/l	 — ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	 ≤44 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	— 	 ≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	 —	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 15, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.167 Walker River at inlet to Weber Reservoir. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Walker River

Control Point at the Walker River at the inlet to Weber Reservoir. The limits of this table apply to the Walker River from the inlet to Weber Reservoir to the confluence of the West Walker River and the East Walker River.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	$\Delta T = 0°C^a$	Nov.-Mar.: ≤13°C Apr.-Jun.: ≤23°Cb Jul.-Oct.: ≤28°C ΔT ≤2°C	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	— —	≤0.26 mg/l ≤0.40 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrogen ≤1.2 mg/l ≤1.5 mg/l	Nitrate: ≤10 mg/l Nitrite: ≤1[c] mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	d	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤400 mg/l ≤450 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤30 mg/l ≤35 mg/l	— ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife irrigation and watering of livestock.
Sulfate Annual Average Single Value	≤95 mg/l ≤110 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	≤3	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value		≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The temperature beneficial use standard is ≤21°C from February through June when Lahontan cutthroat are present in the reach from Walker Lake to Weber Reservoir.
c. The nitrite beneficial use standard is ≤0.06 mg/l from February through June when Lahontan cutthroat trout are present in the reach from Walker Lake to the Weber Reservoir.
d. Increase in turbidity must not be more than 10 NTU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 17, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.168 Walker River at Schurz Bridge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Walker River

Control Point at Schurz Bridge. The limits of this table apply from the inlet to Walker Lake to Weber Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Mar. : ≤13°C Apr.-Jun. : ≤23°C[b] Jul.-Oct. : ≤28°C ΔT ≤2°C	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	—	≤0.17 mg/l ≤0.23 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value Single Value	Total Nitrogen ≤1.2 mg/l ≤1.5 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤1 mg/l[c] Ammonia : ≤.06 mg/l (un-ionized)	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Dissolved Oxygen Single Value	— —	Nov.-May : ≥6.0 mg/l June-Oct. : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	≤60 mg/l	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	d	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤390 mg/l ≤570 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤23 mg/l ≤34 mg/l	— ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	≤3	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometric Mean Single Value	— —	126 MF/100 ml 235 MF/100 ml	Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The temperature beneficial use standard is ≤21°C from February through June when Lahontan cutthroat trout are present.
c. The nitrite beneficial use standard is ≤0.06 mg/l from February through June when Lahontan cutthroat trout are present.
d. Increase in turbidity must not be more than 10 NTU above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-13-85; A by R128-01, 1-18-2002)

NAC 445A.169 Desert Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Desert Creek

Control Point at Desert Creek. The limits of this table apply to Desert Creek from its confluence with the West Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature Single Value	ΔT = 0°C[a]	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C[a]	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	—	Within range 6.5 - 9.0 SU ΔpH : ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	≤0.13 mg/l	≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value	Total Nitrate ≤0.20 mg/l ≤0.27 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	c	Propagation of aquatic life.
Dissolved Oxygen Single Value	— —	Nov.-May : ≥6.0 mg/l Jun.-Oct. : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	—	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value	—	b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	—	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤110 mg/l ≤130 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤5 mg/l ≤7 mg/l	— ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	—	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	—	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as $CaCO_3$)	—	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value		≤126 ≤410	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 18, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85; R128-01, 1-18-2002; R099-02, 12-17-2002)

NAC 445A.1693 Beneficial uses for Walker Lake. (NRS 445A.425, 445A.520) The standards of water quality for Walker Lake are prescribed in NAC 445A.1696. The beneficial uses for this area are:

1. Recreation involving contact with the water;
2. Recreation not involving contact with the water;
3. Propagation of wildlife; and
4. Propagation of aquatic life and, more specifically, the species of major concern are the tui chub, Tahoe sucker, and adult and juvenile Lahontan cutthroat trout.

(Added to NAC by Environmental Comm'n by R129-01, eff. 1-18-2002)

NAC 445A.1696 Walker Lake. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Walker Lake

Control Point at Walker Lake. The limits of this table apply to Walker Lake.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.1693 (Most Stringent Use Listed First)
Temperature[a] Single Value	—	ΔT ≤2°C	Propagation of aquatic life.
pH Single Value	—	Within range 6.5 - 9.7 SU	Propagation of aquatic life, recreation involving contact with the water and propagation of wildlife.
Dissolved Oxygen[b] Single Value	—	≥5 mg/l	Propagation of aquatic life, recreation involving contact with the water, recreation not involving contact with the water and propagation of wildlife.
Suspended Solids Single Value	—	≤25 mg/l	Propagation of aquatic life.
Nitrogen Species (as N) Single Value Single Value	Total Inorganic Nitrogen: ≤0.3 mg/l	Nitrate ≤90 mg/l Nitrite ≤0.06 mg/l	Propagation of aquatic life and propagation of wildlife.
Total Ammonia (as N) – mg/l	—	c	Propagation of aquatic life.
Total Phosphorus (as P) Single Value	—	≤0.82 mg/l	Propagation of aquatic life.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤235	Recreation involving contact with the water and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. When lake is stratified, the dissolved oxygen applies only to the epilimnion.
c. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n by R129-01, eff. 1-18-2002; A by R099-02, 12-17-2002)

NAC 445A.170 Beneficial uses for part of Colorado River, Beaver Dam Wash and certain creeks.

1. The standards of water quality for:
(a) The Colorado River below Davis Dam are prescribed in NAC 445A.192;
(b) Chiatovich Creek in Esmeralda County are prescribed in NAC 445A.171;
(c) Indian Creek are prescribed in NAC 445A.172;
(d) Leidy Creek are prescribed in NAC 445A.173;
(e) Beaver Dam Wash are prescribed in NAC 445A.178;

(f) Snake Creek are prescribed in NAC 445A.179; and
(g) The Colorado River below Hoover Dam are prescribed in NAC 445A.193.
2. The beneficial uses for these areas are:
(a) Irrigation;
(b) Watering of livestock;
(c) Recreation involving contact with the water;
(d) Recreation not involving contact with the water;
(e) Industrial supply;
(f) Municipal or domestic supply, or both;
(g) Propagation of wildlife; and
(h) Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.134355)

NAC 445A.171 Chiatovich Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Chiatovich Creek

Control Point above highway maintenance station. The limits of this table apply above the highway maintenance station.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.04 S.V. : ≤.06	A-Avg. : ≤0.1 —	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤.6 S.V. : ≤.8	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply,[b] aquatic life,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	—	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	c	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤50 S.V. : ≤60	A-Avg. : ≤500 —	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤2 S.V. : ≤3	— S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	A-Avg. : ≤4 S.V. : ≤5	— S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤1	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Increase in color must not be more than 10 PCU above natural conditions.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 19, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.172 Indian Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Indian Creek

Control Point near center of Section 9, T.2 S., R.34 E. The limits of this table apply above the center of Section 9, T.2 S., R 34 E.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— S.V. : ≤0.13	A-Avg. : ≤0.1 —	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate S.V. : ≤0.45	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply,[b] aquatic life,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	—	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	c	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤225 S.V. : ≤300	A-Avg. : ≤500 —	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤6 S.V. : ≤10	— S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Increase in color must not be more than 10 PCU above natural conditions.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 20, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.173 Leidy Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Leidy Creek

Control Point at hydroelectric plant. The limits of this table apply above the hydroelectric plant.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.013 S.V. : ≤.03	A-Avg. : ≤0.1 —	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate A-Avg. : ≤0.18 S.V. : ≤0.22	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply,[b] aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife[b] and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	—	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	c	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤135 S.V. : ≤150	A-Avg. : ≤500 —	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤3 S.V. : ≤5	— S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Increase in color must not be more than 10 PCU above natural conditions.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 21, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.174 Beneficial uses for Virgin River, Meadow Valley Wash and part of Muddy River. The standards of water quality for the Virgin River, Muddy River below

Glendale and Meadow Valley Wash are prescribed in NAC 445A.175, 445A.176, 445A.177, 445A.211 and 445A.212. The beneficial uses for these areas are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Propagation of wildlife; and
6. Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13439)

NAC 445A.175 Virgin River at Mesquite. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Virgin River

Control Point at Mesquite. The limits of this table apply from Mesquite to the Arizona state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Jun. : ≤21°C Jul.-Oct. : ≤32°C ΔT ≤2°C	Aquatic life.[b]
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Propagation of wildlife,[b] aquatic life,[b] recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg. : ≤0.1	Aquatic life[b] and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.9 S.V. : ≤1.6	Nitrate S.V. : ≤90 Nitrite S.V. : ≤5.0	Aquatic life,[b] watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life,[b] recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life.[b]
Color - PCU	—	d	Aquatic life.[b]
Total Dissolved Solids - mg/l	—	c	Irrigation[b] and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤300 S.V. : ≤550	A.G.M. : ≤1000 S.V. : ≤2000	Recreation not involving contact with the water,[b] irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	≤630	Recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. Increase in turbidity must not be more than 10 NTU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.176 Virgin River at the state line near Littlefield. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Virgin River

Control Point at the state line (near Littlefield, Arizona). The limits of this table apply at the Arizona-Nevada state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Jun. : ≤21°C Jul.-Oct. : ≤32°C ΔT ≤2°C	Aquatic life.[b]
pH - Standard Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Propagation of wildlife,[b] aquatic life,[b] recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.06 S.V. : ≤0.1	A-Avg. : ≤0.1 —	Aquatic life[b] and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤2.4 S.V. : ≤3.2	Nitrate S.V. : ≤90 Nitrite S.V. : ≤5.0	Aquatic life,[b] watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life,[b] recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life.[b]
Color - PCU	—	d	Aquatic life.[b]
Total Dissolved Solids - mg/l	—	c	Irrigation[b] and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤450 S.V. : ≤1800	A.G.M. : ≤1000 S.V. : ≤2000	Recreation not involving contact with the water,[b] irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	≤630	Recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. Increase in turbidity must not be more than 10 NTU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.177 Virgin River at Riverside. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Virgin River

Control Point at Riverside. The limits of this table apply from the river mouth at Lake Mead to Mesquite.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Jun. : ≤21°C Jul.-Oct. : ≤32°C ΔT ≤2°C	Aquatic life.[b]
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Propagation of wildlife,[b] aquatic life,[b] recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg. : ≤0.1	Aquatic life[b] and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤2.9 S.V. : ≤6.1	Nitrate S.V. : ≤90 Nitrite S.V. : ≤5.0	Aquatic life[b] watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life,[b] recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life.[b]
Color - PCU	—	d	Aquatic life.[b]
Total Dissolved Solids - mg/l	—	c	Irrigation[b] and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤625 S.V. : ≤1250	A.G.M. : ≤1000 S.V. : ≤2000	Recreation not involving contact with the water,[b] irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	≤630	Recreation not involving contact with the water.[b]

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. Increase in turbidity must not be more than 10 NTU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22.2, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.178 Beaver Dam Wash. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Beaver Dam Wash

Control Point above Schroeder Reservoir. The limits of this table apply above Schroeder Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	—	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.01 S.V. : ≤.013	A-Avg.: ≤0.05 —	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate S.V. :≤.22	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06	Municipal or domestic supply,[b] aquatic life,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: ≥6.0 Jun.-Oct.: ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V.: ≤25	Aquatic life.[b]
Turbidity - NTU	—	S.V.: ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	e	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply,[b] irrigation and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	—	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. Increase in color must not be more than 10 PCU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 23, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.179 Snake Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Snake Creek

Control Point above fish hatchery. The limits of this table apply above the fish hatchery.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-Jun. : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.05 S.V. : ≤.08	A-Avg. : ≤0.1	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate A-Avg. : ≤.22 S.V. : ≤.44	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply,[b] aquatic life,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	—	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	c	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg. : ≤100 S.V. : ≤125	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Chlorides - mg/l	A-Avg. : ≤10 S.V. : ≤20	— S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform-No./100 ml	A.G.M. : ≤100 S.V. : ≤200	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Increase in color must not be more than 10 PCU above natural conditions.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 24, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.180 Smoke Creek.

WATER QUALITY STANDARDS
Smoke Creek

Control Point: Approximately 30 miles east of Susanville, California.

Temperature °C		
Single Value, Summer	not more than	25.0
Single Value, Winter	not more than	14.0
Maximum allowable temperature increase above natural receiving water temperature:		3°C
pH Units		
Annual Median	within range	7.0-8.0
Single Value	within range	6.5-8.5
Dissolved Oxygen - mg/l		
Average (June through September)	not less than	8.0
Single Value	not less than	7.5
BOD - mg/l		
Single Value	not more than	5.0
Chlorides - mg/l		
Single Value	not more than	10.0
Phosphates (PO_4) - mg/l		
Annual Average	not more than	0.5
Single Value	not more than	0.7
Nitrates (NO_3) - mg/l		
Single Value	not more than	5.0
Total Dissolved Solids - mg/l		
Annual Average	not more than	225.0
Single Value	not more than	275.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 36, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.1346)

NAC 445A.181 Bronco Creek.

WATER QUALITY STANDARDS
Bronco Creek

Control Point: At Hirschdale Road.

Temperature °C

Average (June through September)	not more than	20.0
Single Value, Summer	not more than	25.0
Single Value, Winter	not more than	13.0

Maximum allowable temperature increase above natural receiving water temperature: ..... none

pH Units

Annual Median	within range	7.0-8.5
Single Value	within range	6.5-8.5

Dissolved Oxygen - mg/l

Average (June through September)	not less than	7.0
Single Value	not less than	6.0

Chlorides - mg/l

Single Value	not more than	15.0

Phosphates (PO_4) - mg/l

Annual Average	not more than	0.3
Single Value	not more than	0.4

Nitrates (NO_3) - mg/l

Single Value	not more than	2.0

Total Dissolved Solids - mg/l

Annual Average	not more than	225.0
Single Value	not more than	300.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 37, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.13461)

NAC 445A.182 Gray Creek.

WATER QUALITY STANDARDS
Gray Creek

Control Point: At Hirschdale Road.

Temperature °C		
Average (June through September)	not more than	20.0
Single Value, Summer	not more than	25.0
Single Value, Winter	not more than	13.0
Maximum allowable temperature increase above natural receiving water temperature:		none
pH Units		
Annual Median	within range	7.0-8.5
Single Value	within range	6.5-8.5
Dissolved Oxygen - mg/l		
Average (June through September)	not less than	8.0
Single Value	not less than	7.0
Chlorides - mg/l		
Single Value	not more than	10.0
Phosphates (PO_4) - mg/l		
Annual Average	not more than	0.3
Single Value	not more than	0.4
Nitrates (NO_3) - mg/l		
Single Value	not more than	3.0
Total Dissolved Solids - mg/l		
Annual Average	not more than	125.0
Single Value	not more than	165.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 38, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.13462)

NAC 445A.183 Beneficial uses for Truckee River from Pyramid Lake to the state line. The water quality standards for the Truckee River from Pyramid Lake to the state line are prescribed in NAC 445A.184 to 445A.190, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life. The aquatic life of major concern are:

(a) At the state line, all life stages of mountain whitefish, rainbow trout and brown trout.

(b) From the state line to Idlewild, all life stages of mountain whitefish, rainbow trout and brown trout.

(c) From Idlewild to East McCarran, all life stages of mountain whitefish, rainbow trout and brown trout.

(d) From East McCarran to Lockwood, juvenile and adult rainbow trout and juvenile and adult brown trout.

(e) From Lockwood to Derby, juvenile and adult rainbow trout and juvenile and adult brown trout. However, the species which are sensitive to temperature are expected to seek a cooler microhabitat during July and August.

(f) From Derby to Wadsworth, early spawning Lahontan cutthroat trout and their incubation, larvae, juveniles and migration, from May through June, depending on hydrological conditions.

(g) From Wadsworth to Pyramid Lake, early spawning Lahontan cutthroat trout and cui-ui, and their incubation, larvae, juveniles and migration, from May through June, depending on hydrological conditions.

(Added to NAC by Environmental Comm'n, eff. 10-25-84; A 9-25-90; 10-29-93)—(Substituted in revision for NAC 445.134625)

NAC 445A.184 Truckee River at the state line. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Truckee River

Control Point at the state line. The limits of this table apply only at the California-Nevada state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Mar. : ≤7°C Apr.-May : ≤13°C June : ≤17°C July : ≤22°C Aug. : ≤21°C: Sep.-Oct. ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.0 - 8.3	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : ≥6.0 Apr.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤7.0 S.V. : ≤10.0	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	A-Avg. : ≤0.03	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Ortho Phosphate (P) - mg/l	S.V. : ≤0.01	S.V. : ≤0.05	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.3 S.V. : ≤0.43	Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg.: ≤70.0 S.V.: ≤85.0	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Turbidity - NTU	A-Avg.: ≤5.0 S.V.: ≤9.0	S.V. : ≤10.00	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M.: ≤30.0 S.V.: ≤150.0	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg.: ≤15.0	S.V. : ≤25	Aquatic life.[b]
Sulfate - mg/l	A-Avg.: ≤7.0 S.V.: ≤8.0	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg.: ≤0.5 S.V.: ≤0.6	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
BOD - mg/l	—	A-Avg. : ≤2.5 S.V. : ≤3.0	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 39, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

NAC 445A.185 Truckee River at Idlewild. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Truckee River

Control Point at Idlewild. The limits of this table apply from the control point at Idlewild to the state line control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Mar. : ≤7°C Apr.-May : ≤13°C June : ≤17°C July : ≤21°C Aug. : ≤22°C Sep.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.2 - 8.3	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : ≥6.0: Apr.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤7.0 S.V. : ≤10.0	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	A-Avg. : ≤0.05	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Ortho Phosphate (P) - mg/l	S.V. : ≤0.02	S.V. : ≤0.05	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.3 S.V. : ≤0.43	Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤80.0 S.V. : ≤95.0	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Turbidity - NTU	A-Avg. : ≤6.0 S.V. : ≤9.0	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤50.0 S.V. : ≤200.0	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : ≤15.0	S.V. : ≤25	Aquatic life.[b]
Sulfate - mg/l	A-Avg. : ≤7.0 S.V. : ≤8.0	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤0.5 S.V. : ≤0.6	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
BOD-mg/l	—	A-Avg. : ≤2.5 S.V. : ≤3.0	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 40, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

NAC 445A.186 Truckee River at East McCarran. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Truckee River

Control Point at East McCarran Boulevard Bridge. The limits of this table apply from the East McCarran control point to the Idlewild control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Mar. : ≤7°C Apr.-May : ≤13°C June : ≤17°C July : ≤21°C Aug. : ≤22°C Sep.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.0 - 8.5	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : ≥6.0 Apr.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤7.0 S.V. : ≤10.0	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	A-Avg. : ≤0.05	A-Avg. : ≤0.10	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Ortho Phosphate (P) - mg/l	S.V. : ≤0.02	S.V. : ≤0.05	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤0.3 S.V. : ≤0.43	Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	e	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤90.0 S.V. : ≤120.0	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Turbidity - NTU	A-Avg. : ≤6.0	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤75.0 S.V. : ≤350.0	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : ≤15.0	S.V. : ≤25	Aquatic life.[b]
Sulfate - mg/l	A-Avg. : ≤7.0 S.V. : ≤8.0	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤0.5 S.V. : ≤0.6	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.
BOD - mg/l	—	A-Avg. : ≤3.0 S.V. : ≤5.0	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 41, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

NAC 445A.187 Truckee River at Lockwood Bridge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Truckee River

Control Point at Lockwood Bridge. The limits of this table apply from the control point at Lockwood to the East McCarran control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Mar. : ≤13°C Apr. : ≤21°C[e] May : ≤22°C[e,f] June-Oct. : ≤23°C[e,f] ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.1 - 8.5	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : ≥6.0 Apr.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤26.0 S.V. : ≤30.0	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	—	A-Avg. : ≤0.05	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	—	TN A-Avg. : ≤0.75 TN S.V. : ≤1.2 Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	g	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤210.0 S.V. : ≤260.0	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Turbidity - NTU	—	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤90.0 S.V.: : ≤300.0	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : ≤25.0	S.V. : ≤50	Aquatic life.[b]
Sulfate - mg/l	A-Avg. : ≤39.0 S.V. : ≤46.0	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤1.5 S.V. : ≤2.0	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The ΔT of ≤2°C is only for the Reno and Sparks Joint Wastewater Treatment Plant.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 14°C from April through June.
f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.
g. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 42, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

NAC 445A.188 Truckee River at Derby Dam. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Truckee River

Control Point at Derby Dam. The limits of this table apply from Derby Dam to the Lockwood Bridge control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Mar. : ≤13°C Apr. : ≤21°C[e] May : ≤22°C[e,f] June-Oct. : ≤23°C[e,f] ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.0 - 8.6	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-Mar. : ≥6.0 Apr.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤21.0 S.V. : ≤30.0	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	—	A-Avg. : ≤0.05	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	—	TN A-Avg. : ≤0.75 TN S.V. : ≤1.2 Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life,[b] recreation involving contact with the water,b municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	g	Aquatic life,[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤215.0 S.V. : ≤265.0	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Turbidity - NTU	A-Avg. : ≤8.0	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤80.0 S.V. : ≤250	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg. : ≤24.0 S.V. : ≤40.0	S.V. : ≤50	Aquatic life.[b]
Sulfate - mg/l	A-Avg. : ≤39.0 S.V. : ≤46.0	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg. : ≤1.5 S.V. : ≤2.0	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 14°C from April through June.
f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.
g. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 42.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

NAC 445A.189 Truckee River at Wadsworth Gage. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Truckee River

Control Point at Wadsworth Gage. The limits of this table apply from the Wadsworth Gage control point to Derby Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Mar. : ≤13°C[e] Apr.-June : ≤14°C[e] July-Oct. : ≤25°C[f] ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	7.1 - 8.6	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : Nov.-June : ≥6.0 July-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg.: ≤20.0 S.V.: ≤28.0	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	—	A-Avg. : ≤0.05	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	—	TN A-Avg. : ≤0.75 TN S.V. : ≤1.2 Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	g	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg.: ≤245.0 S.V.: ≤310.0	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Turbidity - NTU	—	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V. : ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M.: ≤50 S.V.: ≤250	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Suspended Solids - mg/l	A-Avg.: ≤25.0	S.V. : ≤50	Aquatic life.[b]
Sulfate - mg/l	A-Avg.: ≤39.0 S.V.: ≤46.0	S.V. : ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg.: ≤1.5 S.V.: ≤2.0	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 13°C from November through March and 14°C from April through June.
f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.
g. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 43, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)

NAC 445A.190 Truckee River at Pyramid Lake.

STANDARDS OF WATER QUALITY
Truckee River

Control Point at Pyramid Lake. The limits of this table apply from the mouth of the Truckee River at Pyramid Lake to the Wadsworth Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C	Nov.-Mar.: ≤13°C[e] Apr.-June: ≤14°C[e] July-Oct.: ≤25°C[f] ΔT ≤2°C	Aquatic life[b] and water contact recreation.
pH Units	7.3 - 9.0	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation,[b] wildlife propagation,[b] aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-June: ≥6.0 July-Oct.: ≥5.0	Aquatic life,[b] water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤105.0 S.V.: ≤130.0	S.V.: ≤250	Municipal or domestic supply,[b] wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	—	A-Avg.: ≤0.05	Aquatic life,[b] water contact recreation,[b] municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	—	TN A-Avg.: ≤0.75 TN S.V.: ≤1.2 Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 Ammonia S.V.: ≤.02 (un-ionized)	Aquatic life,[b] water contact recreation,[b] municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: ≤415.0	A-Avg.: ≤500	Municipal or domestic supply,[b] irrigation and stock watering.
Turbidity - NTU	—	S.V.: ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤40 S.V.: ≤250	≤200/400[c]	Water contact recreation,[b] noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: ≤25.0	S.V.: ≤50	Aquatic life.[b]
Sulfate - mg/l	A-Avg.: ≤85.0 S.V.: ≤106.0	S.V.: ≤250	Municipal or domestic supply.[b]
Sodium - SAR	A-Avg.: ≤2.4 S.V.: ≤2.9	A-Avg.: ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 13°C from November through March and 14°C from April through June.
f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 43.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13471)

NAC 445A.1905 Beneficial uses for Lake Tahoe. The standards of water quality for Lake Tahoe are prescribed in NAC 445A.191. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Recreation involving contact with the water;
5. Industrial supply;
6. Propagation of wildlife;
7. Propagation of aquatic life, including a coldwater fishery;
8. Municipal or domestic supply, or both; and
9. Water of extraordinary ecological or aesthetic value.

(Added to NAC by Environmental Comm'n, eff. 11-9-95)

NAC 445A.191 Lake Tahoe.

STANDARDS OF WATER QUALITY
Lake Tahoe

Control Point: Existing sampling points.

pH Units		
Single Value	within range	7.0-8.4
Dissolved Oxygen - Percent of Saturation		
Single Value	not less than	90.0
Chlorides - mg/l		
Annual Average	not more than	3.0
Single Value	not more than	5.0
Soluble Phosphorus - µg/l		
Annual Average	not more than	7.0
Total Nitrogen (as N) - mg/l		
Annual Average	not more than	0.25
Single Value	not more than	0.32
Total Soluble Inorganic Nitrogen - µg/l		
Annual Average	not more than	25.0
Nitrite (as N) - mg/l		
Single Value	not more than	0.06
Ammonia-unionized - mg/l		
Single Value	not more than	0.003
Escherichia Coli - No./100 ml		
Single Value	not more than	126.0

Coliform Organisms - MPN/100 ml

A density not greater than the values shown in the following table:

	Median	Maximum
Undeveloped Lake Front Areas		
10 yards offshore	5.0	32.0
100 yards offshore	3.0	15.0
Developed Lake Front Areas		
10 yards offshore	240.0	700.0
100 yards offshore	15.0	64.0
Directly Influenced by Streams		
10 yards offshore	240.0	700.0
100 yards offshore	32.0	240.0

Temperature °C

Single Value (October 1 through May 31) ..... not more than 10.0

Single Value (June 1 through September 30) ..... not more than 20.0

Permissible temperature increase above natural receiving water temperature ..... none

Algal Growth Potential - The mean annual algal growth potential at any point in the lake must not be greater than twice the mean annual algal potential at a limnetic reference station and using analytical methods determined jointly with the Environmental Protection Agency, Region IX.

Plankton Count - number per ml

Average (June through September) ..... not to exceed 100.0

Single Value ..... not to exceed 500.0

Specific Electrical Conductance micromhos per cm at 20°

Annual Average ..... not to exceed 95.0

Single Value ..... not to exceed 105.0

Total Dissolved Solids - mg/l

Annual Average ..... not more than 60.0

Single Value ..... not more than 70.0

Sulfate - mg/l

Single Value ..... not more than 2.0

Sodium - SAR

Annual Average ..... not more than 8.0

Clarity - The vertical extinction coefficient must be less than 0.08 per meter when measured at any depth below the first meter. Turbidity must not exceed 3 NTU at any point of the lake too shallow to determine a reliable extinction coefficient.

Turbidity - To minimize turbidity levels in Lake Tahoe and tributary streams and control erosion:

1. The discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to Lake Tahoe or any tributary thereto is prohibited.
2. The discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to lands below the high water rim of Lake Tahoe or along any

tributary to Lake Tahoe in a manner which will cause the discharge of the waste materials to Lake Tahoe or any tributary thereto is prohibited.

3. The placement or man-made disturbance of material below the high water rim of Lake Tahoe or along any tributaries to Lake Tahoe in a manner which will cause the discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to Lake Tahoe or any tributary thereto is prohibited.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 44, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-9-95)

NAC 445A.1912 Beneficial uses for tributaries to Lake Tahoe. The standards of water quality for tributaries to Lake Tahoe are prescribed in NAC 445A.1915 and 445A.1917. The beneficial uses for those tributaries are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Recreation involving contact with the water;
5. Industrial supply;
6. Propagation of wildlife;
7. Propagation of aquatic life, including a coldwater fishery;
8. Municipal or domestic supply, or both; and
9. Enhancement of water quality.

(Added to NAC by Environmental Comm'n, eff. 11-9-95)

NAC 445A.1915 Tributaries to Lake Tahoe.

STANDARDS OF WATER QUALITY
Lake Tahoe Tributaries

The following standards apply to all tributaries to Lake Tahoe located in Nevada:

pH Units		
Single Value	within range	6.5-9.0
Dissolved Oxygen - mg/l		
Single Value	not less than	6.0
Total Phosphates (as P) - mg/l		
Annual Average	not more than	0.05
Nitrate (as N) - mg/l		
Single Value	not more than	10.0
Nitrite (as N) - mg/l		
Single Value	not more than	0.06
Ammonia-unionized - mg/l		
Single Value	not more than	0.004
Total Suspended Solids - mg/l		
Single Value	not more than	25.0
Turbidity - NTU		
Single Value	not more than	10.0

Color - PCU
Single Value ..... not more than 75.0

Total Dissolved Solids - mg/l
Annual Average..... not more than 500.0

Chloride - mg/l
Single Value ..... not more than 250.0

Sulfate - mg/l
Single Value ..... not more than 250.0

Sodium - SAR
Annual Average..... not more than 8.0

Escherichia Coli - No./100ml
Single Value ..... not more than 126.0

Temperature °C
Single Value (October 1 through May 31) ..... not more than 10.0
Single Value (June 1 through September 30) ..... not more than 20.0
(Added to NAC by Environmental Comm'n, eff. 11-9-95)

NAC 445A.1917 Standards to maintain higher quality waters within tributaries to Lake Tahoe. The water quality of any tributary to Lake Tahoe which is higher than any applicable standard must be maintained at that higher quality. The following requirements to maintain existing higher quality waters apply at the following control points:

STANDARDS TO MAINTAIN HIGHER QUALITY WATERS WITHIN LAKE TAHOE TRIBUTARIES

Control Point	pH (Standard Units)	Total Phosphates (as P) - mg/l	Total Nitrogen (as N) - mg/l	Chloride, Dissolved, mg/l	Total Dissolved Solids, mg/l	Total Suspended Solids, mg/l	Turbidity, NTU	Color, PCU
E. Fork Incline Cr. at Ski Incline *a	SV: 7.0-7.9		SV: 1.1 AA: 0.4	SV: 4.0 AA: 2.0	SV: 70 AA: 55			no increase > 10
W. Fork Incline C. at State Hwy. 431 *b	SV: 7.0-8.0		SV: 0.9 AA: 0.5	SV: 6.0 AA: 5.0	SV: 80 AA: 80	SV: N/A AA: 8.0	SV: 3.0 AA: 20	no increase > 10
Incline Creek at Lakeshore Drive *c	SV: 7.0-8.3		SV: 1.8 AA: 1.2	SV: 8.0 AA: 6.0	SV: 85 AA: 70			no increase > 10
E. Fork Third Cr. at State Hwy. 431 *d	SV: 7.0-8.0	SV: AA: 0.045	SV: 0.5 AA: 0.3	SV: 5.0 AA: 3.0	SV: 80 AA: 65	SV: N/A AA: 20.0	SV: 3.0 AA: 2.0	no increase > 10
Third Creek at Lakeshore Drive *e	SV: 7.0-8.4		SV: 1.4 AA: 1.0	SV: 5.0 AA: 4.0	SV: 75 AA: 55			no increase > 10
Wood Creek at Lakeshore Drive *f	SV: 7.0-8.2		SV: 0.7 AA: 0.5	SV: 5.0 AA: 3.0	SV: 70 AA: 60			no increase > 10
Second Creek at Second Creek Dr. *g	SV: 7.0-8.0		SV: 0.3 AA: 0.2	SV: 5.0 AA: 3.0	SV: 70 AA: 65			no increase > 10
Second Creek at Lakeshore Drive *h	SV: 7.0-8.2		SV: 0.6 AA: 0.3	SV: 6.0 AA: 3.0	SV: 80 AA: 60			no increase > 10
First Creek at Dale and Knotty Pine Dr. *i	SV: 7.0-8.1	SV: AA: 0.043	SV: 0.3 AA: 0.2	SV: 3.0 AA: 2.0	SV: 80 AA: 70		SV: 4.0 AA: 2.0	no increase > 10
First Creek at Lakeshore Drive *j	SV: 7.0-8.2		SV: 0.6 AA: 0.3	SV: 4.0 AA: 3.0	SV: 90 AA: 75		SV: 9.0 AA: 8.0	no increase > 10
Glenbrook Creek *k	SV: 7.0-8.2	SV: 0.060 AA: N/A	SV: 0.5 AA: 0.5			SV: 22.0 AA: N/A		no increase > 10
Logan House Creek *l	SV: 7.0-8.5	SV: 0.035 AA: 0.035	SV: 0.5 AA: 0.5			SV: 11.0 AA: N/A		no increase > 10
Eagle Rock Creek *m	SV: 7.0-8.4	SV: 0.050 AA: 0.045	SV: 0.2 AA: 0.3			SV: 12.0 AA: 12.0		no increase > 10
Edgewood Creek at Palisades Drive *n	SV: 7.0-8.4	SV: 0.100 AA: N/A	SV: 0.6 AA: 0.6			SV: N/A AA: N/A		no increase > 10
Edgewood Creek at Stateline *o	SV: 7.0-8.4	SV: 0.065 AA: N/A	SV: 0.4 AA: N/A			SV: 17.0 AA: N/A		no increase > 10

FOOTNOTES

a. Control point at the East Fork of Incline Creek at the ski resort. The standards specified in the table apply to the East Fork of Incline Creek from the ski resort to the origin of the East Fork of Incline Creek.
b. Control point at the West Fork of Incline Creek at State Highway 431. The standards specified in the table apply to the West Fork of the Incline Creek from State Highway 431 to the origin of the West Fork of Incline Creek.
c. Control point at Incline Creek at Lakeshore Drive. The standards specified in the table apply to Incline Creek from the confluence with Lake Tahoe to the ski resort in the East Fork of Incline Creek and to State Highway 431 in the West Fork of Incline Creek.
d. Control point at the East Fork of Third Creek at State Highway 431. The standards specified in the table apply from the East Fork of Third Creek at State Highway 431 to the origin of the East Fork of Third Creek.
e. Control point at Third Creek at Lakeshore Drive. The standards specified in the table apply to Third Creek from the confluence with Lake Tahoe to State Highway 431 in the East Fork of Third Creek and to the origin of the West Fork of Third Creek.
f. Control point at Wood Creek at Lakeshore Drive. The standards specified in the table apply to Wood Creek from the confluence with Lake Tahoe to the origin of Wood Creek.
g. Control point at Second Creek at Second Creek Drive. The standards specified in the table apply to Second Creek from Second Creek Drive to the origin of Second Creek.
h. Control point at Second Creek at Lakeshore Drive. The standards specified in the table apply to Second Creek from the confluence with Lake Tahoe to Second Creek Drive.
i. Control point at First Creek at Dale and Knotty Pine Drives. The standards specified in the table apply to First Creek from Dale and Knotty Pine Drives to the origin of First Creek.
j. Control point at First Creek and Lakeshore Drive. The standards specified in the table apply to First Creek from the confluence with Lake Tahoe to Dale and Knotty Pine Drives.
k. Control point on Glenbrook Creek which is located 100 feet from the mouth of Glenbrook Creek at Glenbrook. The standards specified in the table apply to Glenbrook Creek from the confluence with Lake Tahoe to the origin of Glenbrook Creek.
l. Control point on Logan House Creek which is located 0.3 miles upstream from U.S. Highway 50. The standards specified in the table apply to Logan House Creek from the confluence with Lake Tahoe to the origin of Logan House Creek.
m. Control point on Eagle Rock Creek which is located 0.2 miles upstream from the confluence with Edgewood Creek. The standards specified in the table apply to Eagle Rock Creek from the confluence with Edgewood Creek to the origin of Eagle Rock Creek.
n. Control point on Edgewood Creek at Palisades Drive which is located 50 feet downstream from the culvert at Palisades Drive. The standards specified in the table apply to Edgewood Creek from the control point upstream to the origins of Edgewood Creek.
o. Control point on Edgewood Creek at Stateline which is located on the upstream side of the culvert on U.S. Highway 50. The standards specified in the table apply to Edgewood Creek from the confluence with Lake Tahoe upstream to the control point on Edgewood Creek at Palisades Drive.

(Added to NAC by Environmental Comm'n, eff. 11-9-95; A 11-27-96)

NAC 445A.192 Colorado River below Davis Dam. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Colorado River

Control Point below Davis Dam. The limits of this table apply from the state line below Davis Dam to Lake Mohave Inlet.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-June : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.02 S.V. : ≤.03	A-Avg. : ≤0.05 —	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate A-Avg. : ≤1.1 S.V. : ≤1.6	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply,[b] aquatic life,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	e	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply,[b] irrigation and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤50 S.V. : ≤100	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤235	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. Increase in color must not be more than 10 PCU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 46, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.193 Colorado River below Hoover Dam. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Colorado River

Control Point below Hoover Dam. The limits of this table apply from Lake Mohave Inlet to Hoover Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	 ΔT = 0°C	Nov.-Apr. : ≤13°C May-June : ≤17°C Jul.-Oct. : ≤23°C ΔT ≤2°C	Aquatic life[b] and recreation involving contact with the water.
pH Units	— —	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg. : ≤.02 S.V. : ≤.033	A-Avg. : ≤0.05 —	Aquatic life,[b] recreation involving contact with the water,[b] municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤1.0 S.V. : ≤1.5	Nitrate S.V. : ≤10 Nitrite S.V. : ≤.06	Municipal or domestic supply,[b] aquatic life,[b] recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	— —	S.V. : Nov.-May : ≥6.0 Jun.-Oct. : ≥5.0	Aquatic life,[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Suspended Solids - mg/l	— —	S.V. : ≤25	Aquatic life.[b]
Turbidity - NTU	— —	S.V. : ≤10	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	e	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply,[b] irrigation and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	— —	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M. : ≤50 S.V. : ≤100	≤200/400[d]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤235	Recreation involving contact with the water[b] and recreation not involving contact with the water.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
e. Increase in color must not be more than 10 PCU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85; A by R099-02, 12-17-2002)

NAC 445A.194 Requirements to maintain existing higher quality for area of Lake Mead; standards for beneficial uses for area not covered by NAC 445A.196. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. The requirements to maintain existing higher quality for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, requirements relating to temperature, pH, chlorophyll a, total dissolved solids, chloride, sulfate, total inorganic nitrogen, turbidity and color.

2. The water quality standards for beneficial uses for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, standards relating to temperature, pH, dissolved oxygen, un-ionized ammonia, total dissolved solids, chloride, sulfate, suspended solids, nitrate, nitrite, turbidity, fecal coliform and E. coli. The beneficial uses for this area are:

(a) Irrigation;
(b) Watering of livestock;
(c) Recreation involving contact with the water;
(d) Recreation not involving contact with the water;
(e) Industrial supply;
(f) Municipal or domestic supply, or both;
(g) Propagation of wildlife; and
(h) Propagation of aquatic life, including, without limitation, a warm-water fishery.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

NAC 445A.195 Lake Mead excluding area covered by NAC 445A.197. (NRS 445A.425, 445A.520)

Lake Mead

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.194 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C [a]	ΔT 2°C [a]	Propagation of aquatic life, including, without limitation, a warm-water fishery.
pH Single Value	95% of samples not to exceed 8.8 SU	Within Range 6.5-9.0 SU	Propagation of aquatic life, including, without limitation, a warm-water fishery, recreation involving contact with water, propagation of wildlife, municipal or domestic supply, or both, industrial supply, irrigation and watering of livestock.
Dissolved Oxygen Single Value	—	≥5 mg/l in the epilimnion or average in water column during periods of nonstratification	Propagation of aquatic life, including, without limitation, a warm-water fishery, watering of livestock, recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, and propagation of wildlife.
Chlorophyll a–µg/l	b		Recreation involving contact with water, propagation of aquatic life, including, without limitation, a warm-water fishery, recreation not involving contact with water and municipal or domestic supply, or both.
Un-Ionized Ammonia–mg/l	—	c	Propagation of aquatic life, including, without limitation, a warm-water fishery.
Total Dissolved Solids Single Value	Flow Weighted Annual Average Concentration ≤723 mg/l measured below Hoover Dam[d] —	— ≤1000 mg/l	Municipal or domestic supply, or both, and irrigation.
Chloride Single Value	e	≤400 mg/l [e]	Municipal or domestic supply, or both, watering of livestock and propagation of wildlife.
Sulfate Single Value	e	≤500 mg/l [e]	Municipal or domestic water supply, or both.
Suspended Solids Single Value	—	≤25 mg/l	Propagation of aquatic life, including, without limitation, a warm-water fishery, and recreation not involving contact with water.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of Samples ≤4.5 mg/l	Nitrate ≤ 10 mg/l Nitrite ≤1 mg/l	Municipal or domestic supply, or both, watering of livestock, propagation of aquatic life, including, without limitation, a warm-water fishery, and propagation of wildlife.
Turbidity Single Value	f	≤25 NTU	Propagation of aquatic life, including, without limitation, a warm-water fishery, municipal or domestic supply, or both, recreation involving contact with water and recreation not involving contact with water.
Fecal Coliform		≤200/400[g] MF or MPN/100 ml	Recreation involving contact with water, irrigation, recreation not involving contact with water, municipal or domestic supply, or both, propagation of wildlife and watering of livestock.
E. Coli 30-day Log Mean Single Value	— —	≤126 MF/100 ml ≤235 MF/100 ml	Recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, irrigation and watering of livestock.
Color-Pt-Co Units Single Value	h	—	Recreation not involving contact with water and municipal or domestic supply, or both.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The requirements for chlorophyll a are:

(1) Not more than one monthly mean in a calendar year at Station 3 may exceed 45µg/l.
(2) The mean for chlorophyll a in summer (July 1-September 30) must not exceed 40 µg/l at Station 3, and the mean for 4 consecutive summer years must not exceed 30 µg/l. The sample must be collected from the center of the channel and must be representative of the top 5 meters of the channel. "Station 3" means the center of the channel at which the depth is from 16 to 18 meters.
(3) The mean for chlorophyll a in the growing season (April 1-September 30) must not exceed 16 µg/l at LM4 and 9 µg/l at LM5. LM4 is located just outside of the Las Vegas Bay launch ramp and marina, next to buoy RW "1." LM5 is located next to buoy RW "A" with the southshore landmark of Cresent Island.
(4) The mean for chlorophyll a in the growing season (April 1-September 30) must not exceed 5 µg/l in the open water of Boulder Basin, Virgin Basin, Gregg Basin and Pierce Basin. The single value must not exceed 10 µg/l for more than 5 percent of the samples.
(5) Not less than two samples per month must be collected between the months of March and October. During the months when only one sample is available, that value must be used in place of the monthly mean.

c. See footnote b to NAC 445A.197.
d. The details of this standard are set forth in the "1996 Review-Water Quality Standards for Salinity, Colorado River System" approved by the commission on March 25, 1998.
e. The combination of this constituent with other constituents comprising TDS must not result in the violation of the TDS standards for Lake Mead and the Colorado River.
f. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.
g. Based on a minimum of not less than five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 ml nor must more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
h. Color must not exceed that characteristic of natural conditions by more than 10 units Platinum-Cobalt Scale.

The commission recognizes that at entrances of tributaries to Lake Mead, localized violations of standards may occur.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98; R017-99, 9-27-99)

NAC 445A.196 Requirements to maintain existing higher quality for area of Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash, the requirements to maintain existing higher quality are set forth in NAC 445A.197, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen, total dissolved solids and turbidity.

2. The water quality standards for beneficial uses for Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash are set forth in NAC 445A.197, and include, without limitation, standards relating to temperature, pH, dissolved oxygen, nitrate, nitrite, un-ionized ammonia, total dissolved solids, suspended solids, turbidity and fecal coliform. The beneficial uses for this area are:

(a) Irrigation;
(b) Watering of livestock;
(c) Recreation not involving contact with the water;
(d) Industrial supply;
(e) Propagation of wildlife; and
(f) Propagation of aquatic life, including, without limitation, a warm-water fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that all of Lake Mead is fishable and swimable by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

NAC 445A.197 Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash. (NRS 445A.425, 445A.520) Control point at the Western Boundary of the Las Vegas Bay Campground.

Inner Las Vegas Bay

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.196 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C [a]	ΔT 2°C [a]	Propagation of aquatic life, including, without limitation, a warm-water fishery.
pH Single Value	95% of samples not to exceed 8.9 SU	Within Range 6.5-9.0 SU	Propagation of aquatic life, including, without limitation, a warm-water fishery, propagation of wildlife, irrigation, industrial supply and watering of livestock.
Dissolved Oxygen Single Value	—	≥5 mg/l	Propagation of aquatic life, including, without limitation, a warm-water fishery, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as Single Value	Total Inorganic Nitrogen 95% of Samples ≤5.3 mg/l	Nitrate ≤90 mg/l Nitrite ≤5 mg/l	Propagation of aquatic life, including, without limitation, a warm-water fishery, watering of livestock and propagation of wildlife.
Un-Ionized Ammonia as N-mg/l	—	b	Propagation of aquatic life, including, without limitation, a warm-water fishery.
Total Dissolved Solids Single Value	c	≤3000 mg/l	Watering of livestock and irrigation.
Suspended Solids Single Value	—	≤25 mg/l	Propagation of aquatic life, including, without limitation, a warm-water fishery and recreation not involving contact with water.
Turbidity Single Value	d	≤25 NTU	Propagation of aquatic life, including, without limitation, a warm-water fishery and recreation not involving contact with water.
Fecal Coliform MF or MPN/100 ml Single Value	—	e	Propagation of wildlife, recreation not involving contact with water, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The 4-day average for the concentration of un-ionized ammonia in the vertical column of water and the four-sample rolling average for each interval sampled must not exceed 0.05 mg/l more often than once every 3 years. The daily value for this average must account for diurnal fluctuation. Data must be collected at Station 2 from at least three locations between the surface and total depth. This standard is not applicable to the area between Station 2 and the confluence of the Las Vegas Wash. The single value must not exceed 0.45 mg/l more often than once every 3 years. "Station 2" means the center of the channel at which the depth is 10 meters.
c. Any increase in total dissolved solids must not result in a violation of the standards set forth in "1996 Review-Water Quality Standards for Salinity, Colorado River System" approved by the commission on March 25, 1998.
d. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.
e. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

The commission recognizes that, because of discharges of tributaries, localized violations of standards may occur in the inner Las Vegas Bay.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; 7-5-94; R062-98, 8-4-98)

NAC 445A.198 Requirements to maintain existing higher quality for area of Las Vegas Wash from Telephone Line Road to confluences of discharges from Clark County and City of Las Vegas wastewater treatment plants; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, the requirements to maintain existing higher quality are set forth in NAC 445A.199, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards for beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, are set forth in NAC 445A.199, and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform. The beneficial uses for this area are:

(a) Irrigation;

(b) Watering of livestock;

(c) Recreation not involving contact with the water;

(d) Maintenance of a freshwater marsh;

(e) Propagation of wildlife; and

(f) Propagation of aquatic life, excluding fish. This paragraph does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

NAC 445A.199 Las Vegas Wash from Telephone Line Road to confluence of discharges from City of Las Vegas and Clark County wastewater treatment plants. (NRS 445A.425, 445A.520) Control point at Telephone Line Road. The limits in this table apply from Telephone Line Road to the confluence of the discharges from the City of Las Vegas and Clark County wastewater treatment plants, which encompasses the City of Henderson wastewater treatment plant discharge.

Upper Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.198 (MOST STRINGENT USE LISTED FIRST)
Temperature Single Value	ΔT 0°C [a]	—	—
pH Single Value		Within Range 6.5-9.0 SU	Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen-mg/l	—	b	Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of Samples ≤20 mg/l	Nitrate ≤100 mg/l Nitrite ≤10 mg/l	Watering of livestock and propagation of wildlife.
Total Suspended Solids		≤135 mg/l [c]	Propagation of aquatic life, excluding fish.
Total Dissolved Solids at 180°C Single Value	95% of samples ≤1900 mg/l	≤3000 mg/l	Watering of livestock, irrigation and maintenance of a freshwater marsh.
Fecal Coliform MF or MPN/100 ml	—	d	Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone except during storm flow conditions.
b. Aerobic conditions are desirable for the beneficial uses of propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash, aerobic conditions are established as a goal rather than a standard and the goal is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.
c. Total suspended solids standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. "Average flow" is defined as the 12-month rolling average of the average monthly flow.
d. Any discharge from a point source into the Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A by R062-98, 8-4-98)

NAC 445A.200 Requirements to maintain existing higher quality for area from confluence of Las Vegas Wash with Lake Mead to Telephone Line Road; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road, the requirements to maintain existing higher quality are set forth in NAC 445A.201, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards for beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road are set forth in NAC 445A.201, and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform. The beneficial uses for this area are:

(a) Irrigation;
(b) Watering of livestock;

(c) Recreation not involving contact with the water;
(d) Maintenance of a freshwater marsh;
(e) Propagation of wildlife; and
(f) Propagation of aquatic life, excluding fish. This paragraph does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

NAC 445A.201 Confluence of Las Vegas Wash with Lake Mead to Telephone Line Road. (NRS 445A.425, 445A.520) The limits in this table apply from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road.

Lower Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.200 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C [a]	—	—
pH Single Value		Within Range 6.5-9.0 SU	Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen mg/l		b	Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of Samples ≤17 mg/l	Nitrate ≤100 mg/l Nitrite ≤10 mg/l	Watering of livestock and propagation of wildlife.
Total Suspended Solids		≤135 mg/l [c]	Propagation of aquatic life, excluding fish.
Total Dissolved Solids at 180°C Single Value	95% of samples ≤2400 mg/l	≤3000 mg/l	Watering of livestock, irrigation and maintenance of a freshwater marsh.
Fecal Coliform MF or MPN/100 ml	—	d	Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above receiving water temperature at the boundary of an approved mixing zone.
b. Aerobic conditions are desirable for the beneficial uses of propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with the water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash, aerobic conditions are established as a goal rather than a standard and the goal is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.
c. This standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. As used in this paragraph, "average flow" means the 12-month rolling average of the average monthly flow.
d. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 47, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-22-82; R062-98, 8-4-98)

NAC 445A.202 Beneficial uses for Humboldt River. The water quality standards for the Humboldt River from Woolsey to the source of the main stem are prescribed in NAC 445A.203 to 445A.208, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with the water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of aquatic life including warm-water fisheries; and
8. Propagation of wildlife.

(Added to NAC by Environmental Comm'n, eff. 6-29-84; A 9-25-90)—(Substituted in revision for NAC 445.13703)

NAC 445A.203 Humboldt River near Osino. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Humboldt River

Control Point near Osino. The limits in this table apply from the control point near Osino to the upstream source of the main stem.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value[a]	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery),[b] and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.3 S.V. : 7.0 - 8.5	S.V. : 6.5 - 9.0 ΔpH : ±0.5	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery),[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤22 S.V. : ≤25	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery),[b] bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg. : ≤1.5 Apr.-Nov. S.V.: ≤2.4	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply,[b] propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤370 S.V. : ≤385	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80[e]	Aquatic life (warm-water fishery).[b]
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply.[b]
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery),[b] and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤75 S.V.: ≤200	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The maximum allowable point source discharge is S.V. ≤ 80 mg/l of suspended solids.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 48, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

NAC 445A.204 Humboldt River at Palisade Gage. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Humboldt River

Control Point at the Palisade Gage. The limits of this table apply from the control point at Palisade Gage upstream to the Osino control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value[a]	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery)[b] and recreation involving contact with the water.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: ≥5.0	Aquatic life (warm-water fishery),[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg.: ≤21 S.V.: ≤30	S.V.: ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery),[b] bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: ≤1.4 Apr.-Nov. S.V.: ≤2.4	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0	Municipal or domestic supply,[b] propagation of wildlife, irrigation, watering of livestock, and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg.: ≤350 S.V.: ≤400	A-Avg.: ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median: ≤80[e]	Aquatic life (warm-water fishery).[b]
Sulfate - mg/l	—	S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply.[b]
Turbidity - NTU	—	S.V.: ≤50	Aquatic life (warm-water fishery),[b] and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤20 S.V.: ≤150	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water,[b] and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg.: ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 49, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

NAC 445A.205 Humboldt River at Battle Mountain Gage. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Humboldt River

Control Point at the Battle Mountain Gage. The limits of this table apply from the control point at Battle Mountain Gage upstream to the Palisade Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value[a]	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery)[b] and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.4 S.V. : 7.0 - 8.6	S.V. : 6.5 - 9.0 ΔpH : ±0.5	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery),[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤50 S.V. : ≤70	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery),[b] bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg. : ≤1.9 Apr.-Nov. S.V. : ≤4.0	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply,[b] propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤425 S.V. : ≤520	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80[e]	Aquatic life (warm-water fishery).[b]
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply.[b]
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery),[b] and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤50 S.V.: ≤200	≤200/400[c]	Recreation involving contact with water,[b] recreation not involving contact with water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 50, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

NAC 445A.206 Humboldt River at crossing of state highway 789. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Humboldt River

Control Point where state highway 789 crosses the Humboldt River. The limits of this table apply from the control point where state highway 789 crosses the Humboldt River upstream to the Battle Mountain Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value[a]	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery)[b] and recreation involving contact with the water.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.7	S.V. : 6.5 - 9.0 ΔpH : ±0.5	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery),[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg.: ≤60 S.V.: ≤110	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery),[b] bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: ≤2.9 Apr.-Nov. S.V.: ≤3.7	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply,[b] propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg.: ≤500 S.V.: ≤560	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80[e]	Aquatic life (warm-water fishery).[b]
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply.[b]
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery),[b] and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤40 S.V.: ≤100	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 51, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-19-95; R099-02, 12-17-2002)

NAC 445A.207 Humboldt River at Imlay. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Humboldt River

Control Point at Imlay. The limits of this table apply from the control point at Imlay upstream to the Comus Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value[a]	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery)[b] and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.5 S.V. : 7.0 - 8.7	S.V. : 6.5 - 9.0 : ±0.5	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery),[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤70 S.V. : ≤85	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery),[b] bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg. : ≤2.4 Apr.-Nov. S.V. : ≤2.9	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply,[b] propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Total Dissolved Solids - mg/l	S.V. : ≤590	A-Avg. : ≤500	Municipal or domestic supply,[b] irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80e	Aquatic life (warm-water fishery).[b]
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply.[b]
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery),[b] and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤30 S.V.: ≤150	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 52, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

NAC 445A.208 Humboldt River at Woolsey. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Humboldt River

Control Point at Woolsey. The limits of this table apply from the control point at Woolsey upstream to the Imlay control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value[a]	ΔT = 0°C	ΔT ≤2°C	Aquatic life (warm-water fishery),[b] and recreation involving contact with the water.
pH Units Standard Units	A-Avg. : 7.0 - 8.9 S.V. : 7.0 - 9.0	S.V. : 6.5 - 9.0 ΔpH : ±0.5	Recreation involving contact with the water,[b] propagation of wildlife,[b] aquatic life (warm-water fishery), irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V. : ≥5.0	Aquatic life (warm-water fishery),[b] recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A-Avg. : ≤130 S.V. : ≤175	S.V. : ≤250	Municipal or domestic supply,[b] propagation of wildlife, irrigation and watering of livestock.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg. : ≤0.1	Aquatic life (warm-water fishery),[b] bathing and recreation involving contact with the water, municipal or domestic supply and recreation not involving contact with the water.
Nitrogen species (N) - mg/l	—	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply,[b] propagation of wildlife, irrigation, watering of livestock and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Total Dissolved Solids - mg/l	A-Avg. : ≤600 S.V. : ≤700	A-Avg. : ≤1000	Municipal or domestic supply,[b] irrigation and watering of livestock.
Suspended Solids - mg/l	—	Annual Median : ≤80[e]	Aquatic life (warm-water fishery).[b]
Sulfate - mg/l	—	S.V. : ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply.[b]
Turbidity - NTU	—	S.V. : ≤50	Aquatic life (warm-water fishery),[b] and municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤100 S.V.: ≤200	≤200/400[c]	Recreation involving contact with the water,[b] recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤235	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Sodium - SAR	—	A-Avg. : ≤8	Irrigation[b] and municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
b. The most restrictive beneficial use.
c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 53, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95; R099-02, 12-17-2002)

NAC 445A.209 Beneficial uses for Muddy River at Glendale Bridge. The standards for water quality for the Muddy River at Glendale Bridge are prescribed in NAC 445A.210. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Municipal or domestic supply, or both;
6. Propagation of wildlife; and
7. Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.1379)

NAC 445A.210 Muddy River at Glendale Bridge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Muddy River

Control Point at Glendale Bridge. The limits of this table apply from the Glendale Bridge upstream to the river source.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum ΔT[a]	$\Delta T = 0°C$	Nov.-Jun. : ≤21°C Jul.-Oct. : ≤32°C $\Delta T \leq 2°C$	Aquatic life.[b]
pH Units	—	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Propagation of wildlife,[b] aquatic life,[b] recreation not involving contact with the water, irrigation, watering of livestock, municipal or domestic supply and industrial supply
Total Phosphates (as P) - mg/l	—	A-Avg. : ≤0.1	Aquatic life,[b] recreation not involving contact with the water, and municipal or domestic supply.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg. : ≤1.3 S.V. : ≤1.4	Nitrate S.V. : ≤10 Nitrite S.V. : ≤1.0	Municipal or domestic supply,[b] aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	—	S.V. : ≤5.0	Aquatic life,[b] recreation not involving contact with the water, propagation of wildlife, watering of livestock, and municipal or domestic supply.
Turbidity - NTU	—	e	Aquatic life[b] and municipal or domestic supply.
Color - PCU	—	d	Aquatic life[b] and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply,[b] irrigation and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	— —	A.G.M. : ≤1000 S.V. : ≤2000	Recreation not involving contact with the water,[b] municipal or domestic supply,[b] irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	≤630	Recreation not involving contact with the water.[b]

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. Increase in turbidity must not be more than 10 NTU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 54, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.211 Muddy River at Overton. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Muddy River

Control Point at Overton. The limits of this table apply from the mouth of the river at Lake Mead to the Glendale Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum ΔT[a]	ΔT = 0°C [a]	Nov.-Jun.: ≤21°C Jul.-Oct.: ≤32°C ΔT ≤2°C	Aquatic life.[b]
pH Units	—	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Propagation of wildlife,[b] aquatic life,[b] recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: ≤0.3	Aquatic life[b] and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤1.3 S.V.: ≤1.8	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0	Aquatic life,[b] watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	—	S.V.: ≥5.0	Aquatic life,[b] recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life.[b]
Color - PCU	—	d	Aquatic life[b].
Total Dissolved Solids - mg/l	—	c	Irrigation[b] and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	A.G.M.: ≤500 S.V.: ≤1300	A.G.M.: ≤1000 S.V.: ≤2000	Recreation not involving contact with the water,[b] irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	≤630	Recreation not involving contact with the water.[b]

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. Increase in turbidity must not be more than 10 NTU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 55, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.212 Meadow Valley Wash. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Meadow Valley Wash

Control Point at confluence with Muddy River. The limits of this table apply from the confluence of the Meadow Valley Wash with the Muddy River to the bridge above Rox.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum ΔT[a]	ΔT = 0°C	Nov.-Jun.: ≤21°C Jul.-Oct. : ≤32°C ΔT ≤2°C	Aquatic life.[b]
pH Units	—	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Propagation of wildlife,[b] aquatic life,[b] recreation not involving contact with the water, irrigation, watering of livestock and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: ≤0.1	Aquatic life[b] and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤2.0 S.V.: ≤3.3	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0	Aquatic life,[b] watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	f	Aquatic life.[b]
Dissolved Oxygen - mg/l	—	S.V.: ≥5.0	Aquatic life,[b] recreation not involving contact with the water, propagation of wildlife and watering of livestock.
Turbidity - NTU	—	e	Aquatic life.[b]
Color - PCU	—	d	Aquatic life.[b]
Total Dissolved Solids - mg/l	—	c	Irrigation[b] and watering of livestock.
Alkalinity (as $CaCO_3$) - mg/l	—	less than 25% change from natural conditions	Aquatic life[b] and propagation of wildlife.
Fecal Coliform - No./100 ml	— —	A.G.M.: ≤1000 S.V.: ≤2000	Recreation not involving contact with the water,[b] irrigation, propagation of wildlife and watering of livestock.
E coli - No./100 ml Annual Geometric Mean	—	≤630	Recreation not involving contact with the water.[b]

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.
c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. Increase in turbidity must not be more than 10 NTU above natural conditions.
f. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 56, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85; R099-02, 12-17-2002)

NAC 445A.214 Beneficial uses for areas in Snake River Basin.

1. The standards of water quality for:
(a) Big Goose Creek are prescribed in NAC 445A.215;
(b) Salmon Falls Creek are prescribed NAC 445A.216;
(c) Shoshone Creek are prescribed in NAC 445A.217;
(d) Jarbidge River, East Fork are prescribed in NAC 445A.218;
(e) Jarbidge River upstream from Jarbidge are prescribed in NAC 445A.219;

(f) Jarbidge River downstream from Jarbidge are prescribed in NAC 445A.220;
(g) Bruneau River, West Fork are prescribed in NAC 445A.221;
(h) Owyhee River, East Fork above Mill Creek are prescribed in NAC 445A.222;
(i) Owyhee River, East Fork south of Owyhee are prescribed in NAC 445A.223;
(j) Owyhee River, East Fork, Nevada-Idaho state line are prescribed in NAC 445A.224; and
(k) Owyhee River, South Fork are prescribed in NAC 445A.225.

2. The beneficial uses for these areas are:
(a) Irrigation;
(b) Watering of livestock;
(c) Recreation involving contact with the water;
(d) Recreation not involving contact with the water;
(e) Industrial supply;
(f) Municipal or domestic supply, or both;
(g) Propagation of wildlife; and
(h) Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13965)

NAC 445A.215 Big Goose Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Big Goose Creek

Control Point at Ranch.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <13° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) - mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <185	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <9.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.216 Salmon Falls Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Salmon Falls Creek

Control Point at Highway 93 south of Jackpot.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <13° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <250	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <14.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation, and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life, and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. <90	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation, and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.217 Shoshone Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Shoshone Creek

Control Point: Jackpot to Delaplain Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <13° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <250	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <15.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.218 Jarbidge River: East Fork. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
East Fork Jarbidge River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <7° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <200	S.V. <500	Municipal and domestic supply, irrigation, watering of livestock.
Chlorides - mg/l	S.V. <6.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. <100	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.219 Jarbidge River upstream from Jarbidge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Jarbidge River

Control Point upstream from Jarbidge at bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov. -Apr. <7° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	S.V. <0.05	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <65	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <7.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	S.V. <10	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.220 Jarbidge River downstream from Jarbidge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Jarbidge River

Control Point downstream from Jarbidge at bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <7° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	S.V. <0.05	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <80	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <7.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.221 Bruneau River: West Fork. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Bruneau River

Control Point at Diamond "A" Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <7° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <180	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <7.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. <80	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.222 Owyhee River: East Fork above Mill Creek. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Owyhee River

Control Point above Mill Creek.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <7° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <200	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <8.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	 — —	 ≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.223 Owyhee River: East Fork south of Owyhee. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
Owyhee River

Control Point at New China Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <7° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <250	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <8.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	— S.V. <125	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

NAC 445A.224 Owyhee River: East Fork, Nevada-Idaho state line.

STANDARDS OF WATER QUALITY
Owyhee River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔT°C	ΔT = 0°	May-Oct <21° Nov-Apr <7° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 Ammonia S.V. <0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <240	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <11.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	—	<200/400[b]	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13975)

NAC 445A.225 Owyhee River: South Fork. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY
South Fork Owyhee River

Control Point at Petan Access Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum ΔT°C[a]	ΔT = 0°	May-Oct. <21° Nov.-Apr. <13° ΔT <1°	Aquatic life and recreation involving contact with the water.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply and recreation involving contact with the water.
Total Phosphorus (as P) in mg/l	—	<0.1	Aquatic life, recreation involving contact with the water, municipal and domestic supply, and recreation not involving contact with the water.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06	Municipal and domestic supply, aquatic life, recreation involving contact with the water and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	—	d	Aquatic life.
Dissolved Oxygen in mg/l	—	>6.0	Aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal and domestic supply, and recreation not involving contact with the water.
Suspended Solids - mg/l	—	S.V. <25	Aquatic life, and municipal and domestic supply.
Turbidity - NTU	—	S.V. <10	Aquatic life, and municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <280	S.V. <500	Municipal and domestic supply, irrigation and watering of livestock.
Chlorides - mg/l	S.V. <15.0	S.V. <250	Municipal and domestic supply, propagation of wildlife, irrigation and watering of livestock.
Alkalinity (as CO_3) - mg/l	—	<25% change from natural conditions	Aquatic life and propagation of wildlife.
Fecal Coliform - No./100 ml	—	<200/400[b]	Recreation involving contact with the water, recreation not involving contact with the water, municipal and domestic supply, irrigation and propagation of wildlife.
E coli - No./100 ml Annual Geometric Mean Single Value	— —	≤126 ≤410	Recreation involving contact with the water[b] and recreation not involving contact with the water.
Color	—	c	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in NAC 445A.118.

(Added to NAC by Environmental Comm'n, eff. 9-20-90; A by R099-02, 12-17-2002)

Action Levels for Contaminated Sites

NAC 445A.226 Definitions. As used in NAC 445A.226 to 445A.22755, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.22605 to 445A.2268, inclusive, have the meanings ascribed to them in those sections.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22605 "Action level" defined. "Action level" means the level of concentration of a hazardous substance, hazardous waste or a regulated substance in soil, ground water or surface water that is established pursuant to NAC 445A.2272, 445A.22735 and 445A.2275 and for which corrective action may be required by the director.
(Added to NAC by Environmental Comm'n eff. 10-3-96)

NAC 445A.2261 "Administrator" defined. "Administrator" means the administrator of the division.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22615 "Aquifer" defined. "Aquifer" has the meaning ascribed to it in NAC 445A.812.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2262 "Corrective action" defined. "Corrective action" means a permanent remedy that an owner or operator is required to take after a release of a hazardous substance, hazardous waste or a regulated substance to prevent the substance or waste from posing a threat or potential threat to public health or the environment.
(Added to NAC by Environment Comm'n, eff. 10-3-96)

NAC 445A.22625 "Director" defined. "Director" means the director of the state department of conservation and natural resources.
(Added to NAC by Environmental Comm'n eff. 10-3-96)

NAC 445A.2263 "Division" defined. "Division" means the division of environmental protection of the state department of conservation and natural resources.
(Added to NAC by Environmental Comm'n eff. 10-3-96)

NAC 445A.22635 "Ground water" defined. "Ground water" has the meaning ascribed to it in NAC 444.579.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2264 "Hazardous substance" defined. "Hazardous substance" has the meaning ascribed to it in NRS 459.429.
(Added to NAC by Environmental Comm'n eff. 10-3-96)

NAC 445A.22645 "Hazardous waste" defined. "Hazardous waste" has the meaning ascribed to it in NAC 444.843.
(Added to NAC by Environmental Comm'n eff. 10-3-96)

NAC 445A.2265 "Operator" defined. "Operator" means a person in control of or having responsibility for the daily operation of a site, business or other operation where a hazardous substance, hazardous waste or a regulated substance is disposed of, used or stored.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22655 "Owner" defined. "Owner" means a person who owns property where a hazardous substance, hazardous waste or a regulated substance is disposed of, used or stored.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2266 "Person" defined. "Person" has the meaning ascribed to it in NRS 445A.390.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22665 "Regulated substance" defined. "Regulated substance" has the meaning ascribed to it in NRS 459.448.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2267 "Release" defined. "Release" has the meaning ascribed to it in NAC 445A.345.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22675 "Remediation standard" defined. "Remediation standard" means the level of concentration of a hazardous substance, hazardous material or a regulated substance in soil, ground water or surface water which corrective action is designed to achieve.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2268 "Surface water" defined. (NRS 445A.860, 459.425) "Surface water" means all water open to the atmosphere and subject to surface runoff.
(Added to NAC by Environmental Comm'n, eff. 10-3-96; A by Bd. of Health by R088-00, 8-3-2001)

NAC 445A.22685 Applicability. The provisions of NAC 445A.226 to 445A.22755, inclusive, apply to any site, business or other operation where corrective action is required, unless the corrective action is required at:
1. A facility for the treatment, storage or disposal of hazardous waste that is issued a permit pursuant to NRS 459.400 to 459.600, inclusive, and the corrective action is required for any violation of NAC 444.8632.
2. A disposal site, as defined in NRS 444.460, and the corrective action is required pursuant to NAC 444.7481 to 444.7499, inclusive.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2269 Assessment of conditions at site of facility after notification of release of pollutant.
1. Except as otherwise provided in this section, if the owner or operator of a facility, or his designated agent, is required to give notice of a release pursuant to NAC 445A.345 to 445A.348, inclusive, the division shall require the owner or operator to conduct an assessment of the conditions at the site of the facility, including an assessment of the conditions at the site of the facility, including an assessment of the condition of the soil or water, or both, to determine the extent and magnitude of the contamination.
2. The division shall not require an owner or operator to conduct an assessment of the soil required by subsection 1 if the level of contamination of the soil does not exceed the action level established for that soil pursuant to NAC 445A.2272 because of the actions taken by the owner or operator of the facility pursuant to NAC 445A.22695.
3. An assessment conducted pursuant to subsection 1 must:
(a) Identify the relevant pathways specifically related to the site that affect public health and the environment; and
(b) Be approved by the division.
(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22695 Immediate action required under certain circumstances. An owner or operator shall immediately take any action necessary to mitigate and abate imminent and substantial hazards to public health or safety created by the release of a hazardous substance, hazardous waste or a regulated substance.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.227 Contamination of soil: Order by director for corrective action; factors to be considered in determining whether corrective action required.

1. Except as otherwise provided in NAC 445A.22715, the director may require an owner or operator to take corrective action if the release of a hazardous substance, hazardous waste or a regulated substance contaminates soil and the level of contamination exceeds the action level established for the soil pursuant to NAC 445A.2272.

2. In determining whether corrective action is required, the director shall consider:

(a) The depth of any ground water;

(b) The distance to irrigation wells or wells for drinking water;

(c) The type of soil that is contaminated;

(d) The annual precipitation;

(e) The type of waste or substance that was released;

(f) The extent of the contamination;

(g) The present and potential use for the land;

(h) The preferred routes of migration;

(i) The location of structures or impediments;

(j) The potential for a hazard related to fire, vapor or an explosion; and

(k) Any other information specifically related to the site which the director determines is appropriate.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22705 Contamination of soil: Evaluation of site by owner or operator; review of evaluation by division. (NRS 445A.425)

1. Except as otherwise provided in NAC 445A.22715, if an owner or operator is required to take corrective action pursuant to NAC 445A.227, the owner or operator may conduct an evaluation of the site, based on the risk it poses to public health and the environment, to determine the necessary remediation standards or to establish that corrective action is not necessary. Such an evaluation must be conducted using Method E1739-95, adopted by the American Society for Testing and Materials, as it exists on October 3, 1996, or an equivalent method approved by the division.

2. The division shall determine whether an evaluation complies with the requirements of Method E1739-95, or an equivalent method of testing approved by the division. The division may reject, require revisions be made to, or withdraw its concurrence with the evaluation at any time after the completion of the evaluation for the following reasons:

(a) The evaluation does not comply with the applicable requirements for conducting the evaluation;

(b) Conditions at the site have changed; or

(c) New information or previously unidentified information which would alter the results of the evaluation becomes available and demonstrates that the release may have a detrimental impact on public health or the environment.

3. If the division rejects, requires revisions be made to or withdraws its concurrence with an evaluation, it shall provide written notice of its determination and the reasons for its determination to the owner or operator. The owner or operator shall:

(a) Submit a revised evaluation to the division; or

(b) Carry out the corrective action required by the director.

4. Unless an evaluation is rejected by the division or returned to the owner or operator for revision, the director shall consider the results of the evaluation, the level of concentration of the

hazardous substance, hazardous waste or regulated substance in the soil, and the points of compliance to be elements of the plan for corrective action.

5. Method E1739-95, adopted by the American Society for Testing and Materials, as it exists on October 3, 1996, is hereby adopted by reference. A copy of the method may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, at a cost of $31.

(Added to NAC by Environmental Comm'n, eff. 10-3-96; A 10-29-97)

NAC 445A.2271 Contamination of soil: Plan and schedule for completing corrective action. An owner or operator who is required to take corrective action pursuant to NAC 445A.227 shall submit to the division a plan and schedule for completing the corrective action. Except as otherwise provided in NAC 445A.22715, the owner or operator shall not take any corrective action until the plan and schedule are approved by the division.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22715 Contamination of soil: Waiver of requirements. The director may waive the provisions of NAC 445A.227, 445A.22705 and 445A.2271 and require an owner or operator to take corrective action immediately after the release of a hazardous substance, hazardous waste or a regulated substance that contaminates soil if the release:

1. Has an actual or imminent impact on ground water; or
2. Is hazardous to public health and safety.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2272 Contamination of soil: Establishment of action levels.

1. For the purposes of NAC 445A.227 to 445A.22715, inclusive, the action level for soil must be established at the following levels:

(a) The background concentration or volume of a hazardous substance, hazardous waste or a regulated substance set forth in the permit issued to the owner or operator by the division.

(b) The presence of petroleum substance in soil in excess of 100 milligrams per kilogram. The level of concentration must be measured using Analytical Method 8015, adopted by the Environmental Protection Agency and modified for petroleum hydrocarbons, as it exists on October 3, 1996, or an equivalent method approved by the division.

(c) If the potential for human exposure or damage to the environment from contaminated surface water or ground water is the primary pathway of concern, the presence of a hazardous substance, hazardous waste or a regulated substance in soil at the level of concentration for that substance or waste listed in the Toxicity Characteristics Leaching Rule, 40 C.F.R. Part 261.24, as it existed on October 3, 1996. The level of concentration must be measured using Analytical Method 1311, adopted by the Environmental Protection Agency, as it existed on October 3, 1996, or an equivalent method approved by the division.

(d) If inhalation, ingestion or dermal exposure is the primary pathway of concern or an applicable level of concentration is not listed in the Toxicity Characteristics Leaching Rule, the presence of a hazardous substance, hazardous waste or a regulated substance in the soil at an appropriate level of concentration that is based on the protection of public health and safety and the environment. The appropriate level of concentration must be determined by the division using the Integrated Risk Information System, adopted by the Environmental Protection Agency, as it existed on October 3, 1996, or an equivalent method chosen by the division.

2. Except as otherwise provided by this subsection, if more than one action level for soil may be established using the criteria set forth in subsection 1, the most restrictive action level must be used. In no case may the action level be more restrictive than the background concentration of the hazardous substance, hazardous waste or regulated substance.

3. The state environmental commission hereby adopts by reference:

(a) Analytical Method 8015, adopted by the Environmental Protection Agency, as it existed on October 3, 1996. A copy of the method may be obtained from the Environmental Protection Agency, at a cost of $5.

(b) The Toxicity Characteristics Leaching Rule, 40 C.F.R. Part 261.24, as it existed on October 3, 1996. A copy of the rule may be obtained from the United States Government Printing Office, Washington, D.C. 20402, at a cost of $28.

(c) Analytical Method 1311, adopted by the Environmental Protection Agency, as it existed on October 3, 1996. A copy of the method may be obtained from the Environmental Protection Agency, at a cost of $5.

(d) The Integrated Risk Information System, adopted by the Environmental Protection Agency, as it existed on October 3, 1996. A copy of the system is available on-line through the Internet and may be obtained from an Integrated Risk Information System Representative at (301) 496-6531, free of charge.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22725 Contamination of ground water: Order by director for corrective action; request for exemption; exception.

1. Except as otherwise provided in this section, the director may require an owner or operator to take corrective action if the release of a hazardous substance, hazardous waste or a regulated substance contaminates ground water and the level of contamination exceeds the action level established for the ground water pursuant to NAC 445A.22735.

2. An owner or operator may submit a written request to the director for an exemption from the provisions of subsection 1. The request must be accompanied by such supporting information as the director may require. The director may grant the request if:

(a) The ground water contaminated by the release is not a source of drinking water and is not likely to be a source of drinking water because it is economically or technologically impractical to:

(1) Recover the water for drinking because of the depth or location of the water; or

(2) Render the water fit for human consumption; or

(b) The total concentration of dissolved solids in the ground water is more than 10,000 milligrams per liter and the ground water is not reasonably expected to be a source of drinking water.

3. The director shall not require an owner or operator to take corrective action pursuant to subsection 1 to achieve the remediation standard required by the division if the owner or operator files with the division a study which is acceptable to the division and which demonstrates that, based on a review of available technology and the prohibitive cost of the corrective action, it is not feasible to achieve the required remediation standard.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2273 Contamination of ground water: Plan and schedule for completing corrective action. An owner or operator who is required to take corrective action pursuant to NAC 445A.22725 shall submit to the division a plan and schedule for completing the corrective action. The owner or operator shall not take any corrective action until the plan and schedule are approved by the division.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22735 Contamination of ground water: Establishment of action levels.

1. For the purposes of NAC 445A.22725, 445A.2273 and 445A.2274 the action level for ground water must be established at the following levels:

(a) The presence of 1/2 inch or more of a petroleum substance that is free-floating on the surface of the water of an aquifer, using a measurement accuracy of .01 feet.

(b) The presence of a hazardous substance, hazardous waste or a regulated substance in ground water at a level of concentration equal to the maximum contaminant level for that substance or waste established pursuant to the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq., and 40 C.F.R. Part 141, as those sections existed on October 3, 1996.

(c) A level of concentration equal to the background concentration of a hazardous substance, hazardous waste or a regulated substance, if that level of concentration is greater than the maximum contaminant level established pursuant to paragraph (b).

(d) If a maximum contaminant level has not been established for a hazardous substance, hazardous waste or a regulated substance, a level of concentration equal to:

(1) The background concentration of the waste or substance; or

(2) An appropriate level of concentration that is based on the protection of public health and safety and the environment. The appropriate level of concentration must be determined by the division using the Integrated Risk Information System, adopted by reference in NAC 445A.2272, or an equivalent method approved by the division.

2. In establishing an action level pursuant to subsection 1, the division may consider:

(a) The presence of more than one hazardous substance, hazardous waste or regulated substance in the ground water;

(b) Any potential threat the contamination may pose to sensitive areas of the environment; and

(c) Any other threat or potential threat to ground water that is specifically related to the site.

3. If more than one action level for ground water may be established using the criteria set forth in subsection 1, the most restrictive action level must be used.

4. The Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq., and 40 C.F.R. Part 141, as those sections existed on October 3, 1996, are hereby adopted by reference. A copy of those sections may be obtained from the United States Government Printing Office, Washington, D.C. 20402, at a cost of $30.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2274 Contamination of ground water: Remediation standard. Unless remediation of a release may be terminated pursuant to NAC 445A.22745, the remediation standard for ground water shall be deemed to be the action level of the ground water.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22745 Contamination of ground water: Monitoring; conditions for terminating remediation of release.

1. After any corrective action required by NAC 445A.22725 is begun, the owner or operator shall ensure that the contaminated ground water is monitored for not less that 1 year to determine the level of contamination in the water. The division shall determine the frequency of the monitoring, but in no case may the division require monitoring more frequently than once each month.

2. After any corrective action required by NAC 445A.22725 is completed, the owner or operator may terminate remediation of the release if:

(a) An assessment of the contaminated ground water is conducted and indicates that the level of contamination is consistently below the action level for that water established pursuant to NAC 445A.22735; or

(b) After the ground water is treated for not less than 1 year, the concentration of dissolved constituents in the water, measured monthly, fits a curve that is substantially linear and approaches zero slope at the final portion of the curve. The curve must be established using the following equation:

$$C = Cf + Coe^{-kt}$$

Where: "C" means the concentration of the contaminant at "t" in micrograms per liter.

"Cf" means the final concentration of the contaminant in micrograms per liter which the curve approaches asymptotically.

"Co" means the difference between the final concentration of the contaminant and the concentration of the contaminant at time zero in micrograms per liter.

"e" means the base of the natural log or 2.718.

"t" means the time measured in days.

"k" means the decay constant.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2275 Contamination of surface water.

1. The director may require an owner or operator to take corrective action if the release of a hazardous substance, hazardous waste or a regulated substance contaminates surface water and the level of contamination exceeds the action level established for the water pursuant to subsection 2.

2. For the purposes of subsection 1, the action levels and remediation standards for surface water must conform to the standards for water quality set forth in NAC 445A.120, 445A.121, 445A.122 and 445A.144.

3. An owner or operator who is required to take corrective action pursuant to this section shall submit to the division a plan and schedule for completing the corrective action. The owner or operator shall not take any corrective action until the plan and schedule are approved by the division.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.22755 Public hearings regarding corrective action affecting more than one owner or operator. The administrator may hold such hearings as he deems necessary to obtain public testimony regarding any corrective action required to be taken pursuant to NAC 445A.226 to 445A.2275, inclusive, which affects more than one owner or operator or members of the general public.

(Added to NAC by Environmental Comm'n eff. 10-3-96)

Discharge Permits

NAC 445A.228 Requirement; exemptions. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in subsection 2, a person shall not discharge a pollutant from a point source into any waters of this state without obtaining a permit from the department.

2. Although not exempted from complying with all other applicable laws, rules and regulations regarding pollution, the following are specifically exempted from the requirements to obtain a permit:

(a) Persons utilizing an individual sewage disposal system or other sewage disposal system that uses a soil absorption system for the treatment and disposal of domestic wastes, with accumulative flows of less than 5,000 gallons per day, providing the system is approved and is installed, operated and maintained in accordance with the rules and regulations and other requirements of the district health departments or the state board of health. This exemption does not preclude the possibility that health authorities will require permits.

(b) Except as otherwise provided in this paragraph, persons discharging pollutants into a publicly owned or privately owned sewerage system, if the owner of such sewerage system has a valid permit from the department. In such cases, the owner of the sewerage system assumes ultimate responsibility for controlling and treating the pollutants which he allows to be discharged into the system. The department may require an industrial user who discharges pollutants into a publicly owned treatment works which does not have an approved pretreatment program to obtain a permit pursuant to NAC 445A.257.

(c) Discharges of pollutants from agricultural and silvicultural activities, including, without limitation, irrigation return flow and runoff from orchards, cultivated crops, pastures, rangelands and forest lands, except that this exemption does not apply to the following:

(1) Discharges from facilities which confine animals if the facilities contain, or at any time during the previous 12 months contained, for a total of 30 days or more, any of the following types of animals at or in excess of the number listed for each type of animal:

(I) Slaughter and feeder cattle, 1,000;

(II) Mature dairy cattle (whether milkers or dry cows), 700;

(III) Swine weighing over 55 pounds, 2,500;

(IV) Horses, 500;

(V) Sheep, 10,000;

(VI) Turkeys, 55,000;

(VII) Laying hens and broilers, if the animal confinement facility has continuous overflow watering, 100,000;

(VIII) Laying hens and broilers, if the animal confinement facility has liquid manure handling systems, 30,000; or

(IX) Ducks, 5,000.

(2) Discharges from facilities which confine animals if such facility or facilities contain, or at any time during the previous 12 months contained, for a total of 30 days or more, a combination of animals such that the sum of the following numbers is 1,000 or greater: The number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

(3) Discharges from production facilities for aquatic animals.

(4) Discharges of irrigation return flow (such as tailwater, tile drainage, surfaced ground water flow or bypass water) operated by public or private organizations or natural persons if the source of water is effluent from a treatment works.

(5) Discharges from any agricultural or silvicultural activity which have been identified by the administrator or the director as a significant contributor of pollution.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.2.1.1-2.2.1.1.3.5, eff. 5-2-78]—(NAC A 12-3-84; R020-99, 9-27-99)

NAC 445A.229 Issuance of permit prohibited in certain cases. In addition to the cases enumerated in NRS 445A.490, no permit may be issued which authorizes any discharge into any waters of the state:

1. Which the Secretary of the Army, acting through the Chief of Engineers, finds would substantially impair anchorage and navigation of navigable waters; or

2. To which the regional administrator objects in writing pursuant to § 402(d) of the Act.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.1, eff. 5-2-78; A 12-20-79; §§ 2.4.1.4 & 2.4.1.5, eff. 5-2-78]—(Substituted in revision for NAC 445.141)

NAC 445A.230 Application for permit. (NRS 445A.425, 445A.465)

1. Any person wishing to commence future discharges of pollutants must file a complete permit application on forms provided by the department, not less than 180 days in advance of the date on which the person desires to commence the discharge of pollutants, unless the department has granted permission for a later date.

2. The director:

(a) May require the submission of additional information after a permit application has been filed; and

(b) Shall ensure that if a permit application is incomplete or otherwise deficient, processing of the application is not completed until such time as the applicant has supplied the missing information or otherwise corrected the deficiency.

3. If, upon review of an application, the department determines that a permit is not required, the department shall notify the applicant in writing of this determination. The notification constitutes final action by the department on the application.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.2.2.1-2.2.2.3 & 2.2.4, eff. 5-2-78; § 3.2.1, eff. 2-26-75]—(NAC A by R020-99, 9-27-99)

NAC 445A.231 Signatures required on application, reporting forms and discharge monitoring report. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in subsection 3, application and reporting forms submitted to the department must be signed by:

(a) A principal executive officer of the corporation (of at least the level of vice president) or his authorized representative who is responsible for the overall operation of the facility from which the discharge described in the application or reporting form originates.

(b) A general partner of the partnership.

(c) The proprietor of the sole proprietorship.

(d) A principal executive officer, ranking elected official or other authorized employee of the municipal, state or other public facility.

2. Each application must contain a certification by the person signing the application that he is familiar with the information provided, that to the best of his knowledge and belief the information is complete and accurate and that he has the authority to sign and execute the application.

3. A discharge monitoring report must be signed by the senior certified operator of the facility from which the discharge described in the report originates or the person directly responsible for operating the facility.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.2.3-2.2.3.5, eff. 5-2-78]—(NAC A by R020-99, 9-27-99)

NAC 445A.232 Fees. (NRS 445A.425, 445A.430)

1. Except as otherwise provided in subsections 2 and 7, a nonrefundable application fee must accompany each original application for a permit, each application for a modification to a permit, other than a minor modification made pursuant to NAC 445A.263, and each application to renew a permit which is submitted to or required by the director. The director shall charge the following fees:

Type of Permit Issued	Application Fee	Fee for Annual Review and Services
DISCHARGE OF DOMESTIC WASTEWATER		
Less than 50,000 gallons daily	$1,000	$1,000
50,000 gallons or more but less than 250,000 gallons daily	1,500	1,500
250,000 gallons or more but less than 500,000 gallons daily	2,000	2,000
500,000 gallons or more but less than 1,000,000 gallons daily	3,000	3,000

Type of Permit Issued	Application Fee	Fee for Annual Review and Services
1,000,000 gallons or more but less than 2,000,000 gallons daily	$4,000	$4,000
2,000,000 gallons or more but less than 5,000,000 gallons daily	6,000	6,000
5,000,000 gallons or more but less than 10,000,000 gallons daily	10,000	10,000
10,000,000 gallons or more but less than 20,000,000 gallons daily	10,000	20,000
20,000,000 gallons or more but less than 40,000,000 gallons daily	10,000	30,000
40,000,000 gallons or more daily	10,000	40,000
DISCHARGE OF TREATED EFFLUENT FOR IRRIGATION		
Less than 50,000 gallons daily	$750	$750
50,000 gallons or more but less than 250,000 gallons daily	1,000	1,000
250,000 gallons or more but less than 500,000 gallons daily	1,250	1,250
500,000 gallons or more but less than 1,000,000 gallons daily	1,500	1,500
1,000,000 gallons or more but less than 10,000,000 gallons daily	2,000	2,000
10,000,000 gallons or more but less than 20,000,000 gallons daily	2,500	2,500
20,000,000 gallons or more but less than 40,000,000 gallons daily	3,000	3,000
40,000,000 gallons or more daily	3,500	3,500

Type of Permit Issued	Application Fee	Fee for Annual Review and Services
DISCHARGE FROM REMEDIATION, DEWATERING, OTHER THAN A DISCHARGE TO GROUND WATER FROM THE DEWATERING OF A MINE, OR FROM A POWER PLANT, A MANUFACTURING OR FOOD PROCESSING FACILITY OR ANY OTHER COMMERCIAL OR INDUSTRIAL FACILITY		
Cooling water only	$2,000	$2,000
Less than 50,000 gallons of process water daily	2,500	2,500
50,000 gallons or more but less than 250,000 gallons of process water daily	3,000	3,000
250,000 gallons or more but less than 500,000 gallons of process water daily	4,000	4,000
500,000 gallons or more but less than 1,000,000 gallons of process water daily	5,000	5,000
1,000,000 gallons or more but less than 2,000,000 gallons of process water daily	6,000	6,000
2,000,000 gallons or more but less than 5,000,000 gallons of process water daily	8,000	8,000
5,000,000 gallons or more but less than 10,000,000 gallons of process water daily	10,000	10,000
10,000,000 gallons or more but less than 20,000,000 gallons of process water daily	10,000	20,000
20,000,000 gallons or more but less than 40,000,000 gallons of process water daily	10,000	30,000
40,000,000 gallons or more of process water daily	10,000	40,000
DISCHARGE FROM A TREATMENT PLANT FOR DRINKING WATER		
Intermittent discharge of less than 100,000 gallons daily	$500	$500

Type of Permit Issued	Application Fee	Fee for Annual Review and Services
Intermittent discharge of 100,000 gallons or more but less than 1,000,000 gallons daily	$750	$750
Intermittent discharge of 1,000,000 gallons or more daily	1,000	1,000
Routine discharge of less than 100,000 gallons daily	500	500
Routine discharge of 100,000 gallons or more but less than 1,000,000 gallons daily	750	750
Routine discharge of 1,000,000 gallons or more daily	1,000	1,000
DISCHARGE OF WASTEWATER FROM A CONCENTRATED ANIMAL FEEDING OPERATION		
Less than 100,000 gallons daily	$1,500	$1,500
100,000 gallons or more but less than 500,000 gallons daily	2,000	2,000
500,000 gallons or more daily	2,500	2,500
PERMIT FOR A CONCENTRATED ANIMAL FEEDING OPERATION THAT DOES NOT DISCHARGE WASTEWATER		
Area of a holding facility that is less than 10 acres	$1,500	$1,500
Area of a holding facility that is 10 acres or more but less than 20 acres	2,000	2,000
Area of a holding facility that is 20 acres or more	2,500	2,500
DISCHARGE FROM A FISH HATCHERY		
Less than 500,000 gallons daily	$750	$750
500,000 gallons or more but less than 2,500,000 gallons daily	1,000	1,000

Type of Permit Issued	Application Fee	Fee for Annual Review and Services
2,500,000 gallons or more daily	$1,500	$1,500
OTHER PERMITTED DISCHARGES		
Less than 50,000 gallons daily	$1,000	$1,000
50,000 gallons or more but less than 250,000 gallons daily	1,500	1,500
250,000 gallons or more but less than 500,000 gallons daily	3,000	3,000
500,000 gallons or more but less than 1,000,000 gallons daily	5,000	5,000
1,000,000 gallons or more but less than 10,000,000 gallons daily	10,000	10,000
10,000,000 gallons or more but less than 35,000,000 gallons daily	10,000	20,000
35,000,000 gallons or more daily	10,000	30,000
REUSE OF SEWAGE SLUDGE		
Less than 20,000 cubic yards per year	$1,500	$1,500
20,000 cubic yards or more per year	3,000	3,000
REUSE OF DOMESTIC SEPTAGE	$1,000	$1,000
DISCHARGE FROM A RECREATIONAL LAKE	$5,000	$5,000
TEMPORARY PERMIT	$250	Not Applicable

2. Except as otherwise provided in this subsection and subsection 7, a nonrefundable application fee must accompany each original application for a permit and each application to renew a permit for the discharges set forth in this subsection that is submitted to or required by the director. The director shall charge the following fees:

Type of Discharge Permitted	Application Fee for Original Permit	Application Fee for Renewal of Permit	Fee for Annual Review and Services
DISCHARGE TO GROUND WATER FROM THE DEWATERING OF A MINE			
Cooling water only	$625	$315	$1,000
Less than 50,000 gallons of process water daily	625	315	1,500
50,000 gallons or more but less than 1,000,000 gallons of process water daily	875	440	2,000
1,000,000 gallons or more but less than 5,000,000 gallons of process water daily	1,000	500	2,500
5,000,000 gallons or more of process water daily	1,250	625	3,000
MINING			
Discharging wash water where chemicals are not added for metallurgical recovery	$500	$500	$250
Chemically processing less than 18,250 tons per year or a pilot or testing facility	500	500	250
Chemically processing 18,250 tons per year or more but less than 36,500 tons per year	1,500	1,500	2,000
Chemically processing 36,500 tons per year or more but less than 100,000 tons per year	4,000	4,000	4,000
Chemically processing 100,000 tons per year or more but less than 500,000 tons per year	6,000	6,000	8,000
Chemically processing 500,000 tons per year or more but less than 1,000,000 tons per year	10,000	10,000	10,000

Type of Discharge Permitted	Application Fee for Original Permit	Application Fee for Renewal of Permit	Fee for Annual Review and Services
Chemically processing 1,000,000 tons per year or more but less than 2,000,000 tons per year	$14,000	$14,000	$14,000
Chemically processing 2,000,000 tons per year or more	20,000	20,000	20,000
Monitoring of closed facilities	250	250	500
RUNOFF OF STORM WATER			
Industrial or commercial facility, including any structure, that is 5 acres to 10 acres, inclusive, in size	$300	$150	$750
Industrial or commercial facility, including any structure, that is more than 10 acres but less than 25 acres in size	600	300	750
Industrial or commercial facility, including any structure, that is more than 25 acres in size	1,000	500	750
Municipality whose population is 250,000 or less	600	300	750
Municipality whose population is more than 250,000	1,000	500	1,000

3. To determine the number of acres of a holding facility for an application fee or a fee for the annual review and services for a permit issued to a concentrated animal feeding operation that does not discharge wastewater, the director shall multiply the number of animals in the concentrated animal feeding operation by .0023.

4. An application fee or a fee for the annual review and services charged pursuant to subsection 1 must be based upon the limit of flow, in gallons per day, of the discharge authorized in the permit.

5. The application fee for a permit with a term of less than 5 years must be reduced by the director in accordance with the term of the permit, but in no case may the fee be reduced by an amount equal to more than one-third of the fee set forth in this section.

6. If required, the fee for the annual review and services must be:

(a) Submitted to the division on or before July 1 of each year; and

(b) Paid in advance for the period of review that relates to the fiscal year following payment.

7. If a storm water runoff permit is not required, the director may refund the application fee for the permit.

8. On July 1, 2002, and on July 1 of each even-numbered year thereafter, up to and including July 1, 2010, the director shall increase by 5 percent each fee for the annual review and

services set forth in subsection 1. To determine the amount of each fee that is due on or after July 1, 2002, the director shall multiply the fee set forth in subsection 1 by:

(a) For the fees due on July 1, 2002, and July 1, 2003, 1.05;

(b) For the fees due on July 1, 2004, and July 1, 2005, 1.1025;

(c) For the fees due on July 1, 2006, and July 1, 2007, 1.1576;

(d) For the fees due on July 1, 2008, and July 1, 2009, 1.2155; and

(e) For the fees due on or after July 1, 2010, 1.2763.

In establishing the annual fee for the review and services pursuant to this subsection, the director shall round to the nearest dollar.

9. The director may allow a holder of a permit to pay any fee required by subsection 1 pursuant to a payment plan if the holder of the permit submits a petition to the division, on a form prescribed by the division, which demonstrates that the payment of the fee in a lump sum would cause financial hardship to the holder of the permit.

10. As used in this section:

(a) "Concentrated animal feeding operation" has the meaning ascribed to it in 40 C.F.R. § 122.23.

(b) "Domestic septage" has the meaning ascribed to it in 40 C.F. R. § 503.9.

(c) "Sewage sludge" has the meaning ascribed to it in 40 C.F.R. § 503.9.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.2.5-2.2.5.2, eff. 5-2-78]—(NAC A 12-3-84; 7-22-87; 9-1-89; 9-19-90; 9-25-90; 9-13-91; 3-27-92; 10-29-97, eff. 7-1-2001; R206-99, 1-26-2000, eff. 7-1-2001)

NAC 445A.233 Determination of application prior to public notice.

1. The department shall formulate and prepare tentative determinations regarding permit applications in advance of public notice of the proposed issuance or denial of the permit. The tentative determinations must include at least the following:

(a) A proposed determination to issue or deny a permit for the discharge described in the application; and

(b) If the determination proposed in paragraph (a) is to issue the permit, the following additional tentative determinations must be made:

(1) The proposed effluent limitations, identified pursuant to NAC 445A.243, for those pollutants proposed to be limited;

(2) A proposed schedule of compliance, including interim dates and requirements, for meeting the proposed effluent limitations, identified pursuant to NAC 445A.244; and

(3) A brief description of any other proposed special conditions, apart from those required in NAC 445A.229, 445A.243, 445A.244, 445A.245, 445A.247, 445A.256 to 445A.259, inclusive, and 445A.262, which will have a significant impact upon the discharge described in the application.

2. The director shall organize the tentative determinations prepared pursuant to subsection 1 into a draft permit.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.1.1-4.1.2, eff. 2-26-75]—(Substituted in revision for NAC 445.145)

NAC 445A.234 Public notice regarding permit; contents. (NRS 445A.425, 445A.465)

1. Public notice of every complete application for a discharge permit, except for a temporary permit or a permit for pretreatment discharge or the poisoning of trash fish, must be circulated in a manner designed to inform interested and potentially interested persons of the proposed discharge and of the proposed determination to issue or deny a permit for the discharge. Procedures for the circulation of public notice must include at least the following:

(a) Notice must be circulated within the geographical area of the proposed discharge by publishing in a local newspaper or periodical or, if the local newspaper is not a daily newspaper, in a daily newspaper of general circulation; and

(b) Notice must be mailed to any person or group on the mailing list maintained by the department or upon request.

2. The director shall add the name of any person or group upon request to a mailing list to receive copies of notices for permit applications.

3. The director shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit their written views on the tentative determinations with respect to the application. All written comments submitted during the 30-day comment period must be retained by the director and considered in the formulation of his final determinations with respect to the permit application. The period for comment may be extended at the director's discretion.

4. The contents of the public notice of applications for permit must include at least the following:

(a) The name, address and phone number of the department;

(b) The name and address of each applicant;

(c) A brief description of each applicant's activities or operations which result in the discharge described in the application, for example, municipal waste treatment plant, steel manufacturing or drainage from mining activities;

(d) The name of the waterway to which each discharge is made and a short description of the location of each discharge on the waterway, indicating whether such discharge is existing or new;

(e) A statement of the tentative determination to issue or deny a permit for the discharge described in the application;

(f) A brief description of the procedures for the formulation of final determinations including the required 30-day comment period and any other means by which interested persons may influence or comment upon those determinations; and

(g) The address and phone number of the premises at which interested persons may obtain further information, request a copy of the draft permit prepared pursuant to subsection 2 of NAC 445A.233, request a copy of the fact sheet and inspect and copy relevant forms and documents.

[Environmental Comm'n, Water Pollution Control Reg. § 2.3.1, eff. 5-2-78; §§ 4.2.1-4.2.3.7, eff. 2-26-75]—(NAC A 12-3-84; R020-99, 9-27-99)

NAC 445A.235 Notice to other governmental agencies. (NRS 445A.425, 445A.465) The director shall notify other appropriate governmental agencies of each complete application for a permit, except for a temporary permit, and shall provide the agencies with an opportunity to submit their written views and recommendations. Procedures for such notification must include the following:

1. At the time of issuance of a public notice, pursuant to NAC 445A.234, transmission of a fact sheet to any other states whose waters may be affected by the issuance of a permit and, upon request, providing such states with a copy of the application and a copy of the draft permit prepared pursuant to subsection 2 of NAC 445A.233. Each affected state must be given an opportunity to submit written recommendations to the director and to the regional administrator which the director may incorporate into the permit if issued. Should the director fail to incorporate any written recommendations thus received, he shall provide to the affected state or states, and to the regional administrator, a written explanation of his reasons for failing to accept any of the written recommendations.

2. A procedure, similar to that prescribed by subsection 1, for notifying any interstate agency having water quality control authority over waters which may be affected by the issuance of a permit.

3. At the time of issuance of a public notice pursuant to NAC 445A.234, transmission of a fact sheet to the appropriate district engineer of the Army Corps of Engineers for applications involving discharges to navigable waters. A copy of any written agreement made pursuant to this subsection between the director and a district engineer must be forwarded to the regional administrator and must be made available to the public for inspection and copying.

4. A procedure for mailing copies of fact sheets of applications for permits to any other federal, state or local agency upon request and providing such agencies an opportunity to respond, comment or request a public hearing pursuant to NAC 445A.238.

5. Procedures for notice to and coordination with appropriate public health agencies for the purpose of assisting the applicant in coordinating the applicable requirements of the Act with any applicable requirements of such public health agencies.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.4-4.4.5, eff. 2-26-75]—(NAC A by R020-99, 9-27-99)

NAC 445A.236 Fact sheets. (NRS 445A.425, 445A.465)

1. For every discharge for which public notice was required pursuant to NAC 445A.234, the director shall prepare and, following the public notice, shall send upon request to any person a fact sheet with respect to the application described in the public notice. The contents of such fact sheets must include at least the following information:

(a) A sketch or detailed description of the location of the discharge described in the application;

(b) A quantitative description of the discharge described in the application which includes at least the following:

(1) The rate or frequency of the proposed discharge and, if the discharge is continuous, the average daily flow in gallons per day or million gallons per day;

(2) For thermal discharges subject to limitation under the Act, the average summer and winter temperatures in degrees Fahrenheit; and

(3) The average daily discharge in pounds per day of any pollutants which are present in significant quantities or which are subject to limitations or prohibition under § 301, 302, 306 or 307 of the Act, 33 U.S.C. § 1311, 1312, 1316 or 1317, and regulations published thereunder;

(c) The tentative determinations required under NAC 445A.233;

(d) A brief citation, including a brief identification of the uses for which the receiving waters have been classified, of the water quality standards and limitations applied to the proposed discharge; and

(e) A fuller description of the procedures for the formulation of final determinations than that given in the public notice including:

(1) The 30-day comment period required by subsection 3 of NAC 445A.234;

(2) Procedures for requesting a public hearing and the nature thereof; and

(3) Any other procedures by which the public may participate in the formulation of the final determinations.

2. The director shall add the name of any person or group upon request to a mailing list to receive copies of fact sheets.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.3.1-4.3.2, eff. 2-26-75]—(NAC A by R020-99, 9-27-99)

NAC 445A.237 Public access to information; confidentiality.

1. The director shall ensure that any application, reporting or related forms, including the draft permits prepared pursuant to subsection 1 of NAC 445A.233, or any public comment upon those forms pursuant to subsection 3 of NAC 445A.234 are available to the public for inspection and copying. The director may also make available to the public any other records, reports, plan or information obtained by the state pursuant to its participation in the permit program.

2. The director shall protect any information, other than effluent data, contained in such forms or other records, reports or plans as confidential upon a showing by any person that such information, if made public, would divulge methods or processes entitled to protection as trade secrets of that person. If, however, the information being considered for confidential treatment is contained in any NPDES form, the director shall forward the information to the regional administrator for his concurrence in any determination of confidentiality. If the regional administrator issues a decision to the department that the information is not entitled to protection as a trade secret, the information must be made available to the public by the department.

3. Any information accorded confidential status, whether or not contained in any NPDES form, must be disclosed, upon request, to the regional administrator or his authorized representative, who shall maintain the disclosed information as confidential.

4. The director shall provide facilities for the inspection of information relating to application, reporting and permit forms and shall ensure that state employees honor requests for such inspection promptly without undue restrictions. The director shall either:

(a) Ensure that copying machines are available for a reasonable fee; or

(b) Otherwise provide for copying services so that requests for copies of nonconfidential documents may be honored promptly.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.5.1-4.5.4, eff. 2-26-75]—(Substituted in revision for NAC 445.149)

NAC 445A.238 Request for public hearing.

1. The director shall provide an opportunity for the applicant, any affected state, any affected interstate agency, the regional administrator or any interested agency, person or group of persons to request a public hearing with respect to a permit application.

2. The request must be filed within the 30-day period prescribed in subsection 3 of NAC 445A.234, and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. The director shall hold a hearing if there is a significant public interest for holding it. Expressions of public interest such as the filing of requests for the hearing will be considered. Instances of doubt will be resolved in favor of holding a hearing.

3. Any hearing pursuant to this section must be held in the geographical area of the proposed discharge or other appropriate area, in the director's discretion. As appropriate, the director may consider related groups of permit applications.

4. Public notice for the hearing must be made at least 30 days prior to the hearing and in accordance with the requirements stated in subsection 1 of NAC 445A.234. Any person or agency which has received notice of the permit application must also receive notice of the public hearing. If a hearing is requested by an applicant for a discharge permit, upon determination by the director to hold such a hearing, the hearing must be held in accordance with chapter 233B of NRS unless waived by the applicant. The department shall notify the applicant of its intent to schedule such a hearing and the procedures to be followed.

[Environmental Comm'n, Water Pollution Control Reg. § 2.3.2, eff. 5-2-78; § 4.6, eff. 2-26-75]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.150)

NAC 445A.239 Notice of public hearings: Contents of notice.

1. Public notice of any public hearing held pursuant to NAC 445A.070 to 445A.340, inclusive, must be circulated at least as widely as was the notice of the permit application. Notice for public hearings held under NAC 445A.238 must be:

(a) Published in at least one newspaper of general circulation within the geographical area of the discharge;

(b) Sent to all persons and government agencies which received a copy of the notice or the fact sheet for the permit application;

(c) Mailed to any person or group upon request; and

(d) Given, pursuant to paragraphs (a), (b) and (c), of this subsection, at least 30 days in advance of the hearing.

2. The contents of the public notice of any public hearing must include at least the following:

(a) Name, address and phone number of the department;

(b) Name and address of applicants;

(c) Name of the waterway to which the discharge is made and a short description of the location of each discharge to the waterway;

(d) A brief reference to the public notice issued for the permit application, including identification number and date of issuance;

(e) Information regarding the time and location for the hearing;

(f) The purpose of the hearing;

(g) A concise statement of the issues raised by the persons requesting the hearing;

(h) Address and phone number of the premises at which interested persons may obtain further information, request a copy of draft permits and fact sheets and inspect and copy application forms and related documents; and

(i) A brief description of the nature of the hearing, including the rules and procedures to be followed.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.7.1-4.7.2.9, eff. 2-26-75]—(Substituted in revision for NAC 445.151)

NAC 445A.240 Notification of issuance or denial.

1. If a permit is issued, the applicant must be notified in writing of the specific limitations and conditions contained in the permit. A copy of the permit issued must be attached to the notification.

2. If the department determines that a permit should not be issued, the applicant must be notified of the denial and the reasons for denial by certified mail.

3. A copy of each application for a permit and each permit which has been issued must be made available to the public.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.3.3-2.3.5, eff. 5-2-78]—(Substituted in revision for NAC 445.152)

NAC 445A.241 Duration and reissuance of permits. (NRS 445A.425, 445A.465, 445A.495)

1. The duration of permits is fixed and does not exceed 5 years. The expiration date must be recorded on each permit issued. A new application must be filed with the department to obtain renewal or modification of a permit. Applications for renewal must be filed at least 180 days prior to expiration of the permit.

2. For the reissuance of a permit, the same procedures must be followed as for the initial issuance of a permit.

3. A person who holds an expired permit and who has submitted a timely application for renewal of the permit in the manner set forth in subsection 1 may continue to conduct the permitted activity in accordance with the terms and conditions of the expired permit until the department takes final action on the application unless:

(a) The department determines that the permittee is not in substantial compliance with the terms and conditions of the expired permit or with a compliance schedule designed to bring the permittee in compliance with the terms and conditions of the expired permit;

(b) The department, as a result of an action or the failure to act of the permittee, has been unable to take final action on the application on or before the expiration date of the permit; or

(c) The permittee has submitted an application with major deficiencies or has failed to supplement properly the application in a timely manner after being informed of deficiencies.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.5.1 & 2.5.2, eff. 5-2-78]—(NAC A by R020-99, 9-27-99)

NAC 445A.242 Transmission of issued permits to regional administrator. The director shall transmit to the regional administrator a copy of every issued permit, immediately following issuance, along with any and all terms, conditions, requirements or documents which are a part of such permit or which affect the authorization by the permit of the discharge of pollutants.

[Environmental Comm'n, Water Pollution Control Reg. § 5.6, eff. 2-26-75]—(Substituted in revision for NAC 445.154)

NAC 445A.243 Establishment of effluent limitation. (NRS 445A.425, 445A.465, 445A.500) In establishing an effluent limitation to carry out the policy of this state set forth in NRS 445A.305, consideration must be given to, but is not limited by, the following:

1. The effect of the discharge on the receiving waters and its beneficial use.

2. The need for standards that specify by chemical, physical, biological or other characteristics the extent to which pollution by various substances will not be tolerated.

3. Standards for water quality and effluent limitations promulgated from time to time by the United States Environmental Protection Agency, including the following:

(a) Effluent limitations under §§ 301 and 302 of the Act, 33 U.S.C. §§ 1311 and 1312.

(b) Standards of performance for new sources under § 306 of the Act, 33 U.S.C. § 1316.

(c) Effluent standards, effluent prohibitions and pretreatment standards under § 307 of the Act, 33 U.S.C. § 1317.

(d) Any more stringent limitations, including those:

(1) Necessary to meet standards for water quality and treatment or schedules of compliance, established pursuant to any state law or regulation;

(2) Necessary to meet any other federal law or regulation; or

(3) Required to carry out any applicable standards for water quality.

Such limitations must include any legally applicable requirements necessary to carry out total maximum daily loads established pursuant to § 303(d) of the Act, 33 U.S.C. § 1303(d), and incorporated in the continuing planning process approved under § 303(e) of the Act, 33 U.S.C. § 1303(e), and any regulations and guidelines issued thereunder.

(e) Any more stringent legally applicable requirements necessary to comply with a plan approved pursuant to § 208(b) of the Act.

4. In the application of water quality standards and limitations and other legally applicable requirements pursuant to subsection 3, the director shall, for each issued NPDES permit, specify average and maximum daily quantitative limitations for the level of pollutants in the authorized discharge in terms of mass, except quantitative limitations that are not appropriately expressed in terms of mass, including, without limitation, pH, temperature and radiation.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.2, eff. 5-2-78; A 12-20-79; §§ 2.4.2.1-2.4.2.3, eff. 5-2-78; §§ 5.2.1-5.2.1.6 & 5.3, eff. 2-26-75]—(NAC A 11-1-95; R020-99, 9-27-99)

NAC 445A.244 Schedules of compliance.

1. In addition to the application of the water quality standards and limitations and other legally applicable requirements pursuant to subsection 3 of NAC 445A.243, the director shall adhere to the following procedures in establishing schedules of compliance:

(a) A permit issued for any discharge not in compliance with the requirements listed in subsection 3 of NAC 445A.243 must contain a schedule to reach compliance with those requirements. The schedule must set forth interim requirements and the dates for their achievement.

(b) Not later than 14 days following each interim date and the final date for compliance contained in the schedule, the holder of the permit shall provide the director with written notice of the holder's compliance or noncompliance with the interim or final requirement.

(c) If a holder of a permit fails or refuses to comply with an interim or final requirement in a permit, such noncompliance constitutes a violation of the permit for which the director may suspend or revoke the permit or take direct enforcement action.

2. A compliance schedule to bring an existing point source into compliance with a discharge limitation based on a water quality standard may be established in a permit for the point source if:

(a) The schedule requires compliance with the discharge limitation as soon as practicable; and

(b) The owner or operator of the point source demonstrates that the requirements of §§ 301(b) and 306 of the Act have been satisfied and that the point source cannot comply immediately with the discharge limitation through the application of existing water pollution control technology or operational changes.

[Environmental Comm'n, Water Pollution Control Reg. §§ 5.4-5.4.5, eff. 2-26-75]—(NAC A 11-1-95)

NAC 445A.245 Verification of water quality.

1. In any case, where an issued permit applies, the effluent standards and limitations described in paragraphs (a), (b) and (c) of subsection 3 of NAC 445A.243, the director shall state that the discharge authorized by the permit will not violate applicable standards for water quality and shall prepare some explicit verification of that statement. A completed fact sheet as required by NAC 445A.236 is deemed to satisfy the requirement for explicit verification.

2. In any case where an issued permit applies any more stringent effluent limitation based upon applicable standards for water quality, a waste load allocation must be prepared to ensure that the discharge authorized by the permit is consistent with applicable standards for water quality.

[Environmental Comm'n, Water Pollution Control Reg. §§ 5.2.2 & 5.2.3, eff. 2-26-75]—(Substituted in revision for NAC 445.157)

NAC 445A.247 Entry and inspection of premises; sampling; copying of records. The holder of the permit shall allow the director or his authorized representative, upon the presentation of his credentials:

1. To enter upon the holder's premises in which an effluent source is located or in which any records are required to be kept under terms and conditions of the permit;
2. To have access to and copy any records required to be kept under terms and conditions of the permit;
3. To inspect any monitoring equipment or method required in the permit;
4. To sample any discharge of pollutants; or
5. To sample any influent of a holder.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.4.3.3, 2.4.3.3.3 & 2.4.3.3.4, eff. 5-2-78; A 12-20-79; §§ 2.4.3.3.1 & 2.4.3.3.2, eff. 5-2-78; § 2.4.3.3.5, eff. 10-26-79]—(Substituted in revision for NAC 445.159)

NAC 445A.248 Cost of testing and sampling borne by discharger. The cost of all testing and sampling as may be required and specified in a permit or order by the department must be provided and paid for by the discharger.

[Environmental Comm'n, Water Pollution Control Reg. § 2.7.2, eff. 5-2-78]—(Substituted in revision for NAC 445.160)

NAC 445A.249 Procedures to monitor, record and report. The director shall use procedures consistent with any national monitoring, recording and reporting requirements specified by the administrator in regulations issued pursuant to the Act.

[Environmental Comm'n, Water Pollution Control Reg. § 7.4, eff. 2-26-75]—(Substituted in revision for NAC 445.161)

NAC 445A.250 Monitoring. (NRS 445A.425, 445A.465)

1. Any discharge authorized by a permit may be subject to such monitoring requirements as may be reasonably required by the director including the installation, use and maintenance of monitoring equipment or methods, including, where appropriate, biological monitoring methods.

2. Any discharge authorized by a permit which:

(a) Is not a minor discharge; or

(b) The regional administrator requests, in writing, be monitored,

must be monitored.

3. Any discharge authorized by an NPDES permit which contains toxic pollutants for which an effluent standard has been established by the regional administrator pursuant to section 307(a) of the Act, must be monitored by the holder of the permit for at least the following:

(a) Flow, in gallons per day; and

(b) All of the following pollutants:

(1) Pollutants either directly or indirectly through the use of accepted correlation coefficients or equivalent measurement which are subject to reduction or elimination under the terms and conditions of the permit;

(2) Pollutants which the director finds, on the basis of information available to him, could have a significant impact on the quality of the waters of the state;

(3) Pollutants specified by the administrator, in regulations issued pursuant to the Act, as subject to monitoring as a requirement of an NPDES permit; and

(4) Any pollutants in addition to the above which the regional administrator requests, in writing, be monitored as a requirement of an NPDES permit.

4. Each effluent flow or pollutant required to be monitored pursuant to this subsection must be monitored at intervals sufficiently frequent to yield data which reasonably characterize the nature of the discharge of the monitored effluent flow or pollutant. Variable effluent flows and pollutant levels may be monitored at more frequent intervals than relatively constant effluent flows and pollutant levels.

[Environmental Comm'n, Water Pollution Control Reg. §§ 7.1.1-7.1.3, eff. 2-26-75]—(NAC A by R020-99, 9-27-99)

NAC 445A.251 Recording of results of monitoring. The director shall specify the following recording requirements for any permit which requires monitoring of the authorized discharge:

1. The holder of the permit shall maintain records of all information resulting from any monitoring activities required of it in its permit;

2. Any records of monitoring activities and results must include for all samples:

(a) The date, exact place and time of sampling;

(b) The dates that analyses were performed;

(c) Who performed the analyses;

(d) The analytical techniques or methods used; and

(e) The results of such analyses; and

3. The holder of the permit is required to retain for a minimum of 3 years any records of monitoring activities and results, including all original strip chart recording for continuous monitoring instrumentation and all calibration and maintenance records. This period of retention must be extended during the course of any unresolved litigation regarding the discharge of pollutants by the holder or when requested by the director or regional administrator.

[Environmental Comm'n, Water Pollution Control Reg. §§ 7.2-7.2.3, eff. 2-26-75]—(Substituted in revision for NAC 445.163)

NAC 445A.252 Periodic reporting of results of monitoring. The director shall require periodic reporting, at a frequency of not less than once per year, on the proper reporting form of monitoring results obtained by a holder of a permit pursuant to monitoring requirements in its permit. The director may also require the submission of other appropriate information regarding monitoring results.

[Environmental Comm'n, Water Pollution Control Reg. § 7.3, eff. 2-26-75]—(Substituted in revision for NAC 445.164)

NAC 445A.253 Disposal of pollutants into wells. (NRS 445A.425, 445A.465)

1. Any disposal of pollutants into wells must be regulated to protect the public health and welfare and to prevent pollution of the ground and surface water resources of the state.

2. If an applicant for a permit proposes to dispose of pollutants into wells as part of a program to meet the proposed terms and conditions of a permit, the director shall specify additional terms and conditions in the final permit which must prohibit the proposed disposal or must control the proposed disposal in order to prevent pollution of ground and surface waters of the state and to protect the public health and welfare.

3. Any permit issued for the disposal of pollutants into wells must be issued in accordance with the procedures and requirements specified in NAC 445A.070 to 445A.340, inclusive, and 445A.810 to 445A.925, inclusive.

4. The director shall utilize in his review of any permits proposed to be issued for the disposal of pollutants into wells any policies, technical information or requirements specified by the administrator in regulations issued pursuant to the Act or in directives issued to the regional offices of the United States Environmental Protection Agency.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.9.1-2.9.4, eff. 5-2-78]—(NAC A by R020-99, 9-27-99)

NAC 445A.254 Standards for pretreatment; adoption by reference; inspection.

1. Any person who discharges a pollutant into any waters of this state or into a publicly owned treatment works shall comply with the appropriate standards for pretreatment and the limitations and prohibitions applicable to the type of pollutant discharged which are contained in 40 C.F.R. §§ 401.10 to 469.26, inclusive.

2. The commission adopts by reference 40 C.F.R. §§ 401.10 to 469.26, inclusive, as they existed on December 3, 1984. The pamphlets containing these sections are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for the following prices:

(a) Code of Federal Regulations, Protection of Environment, 40, Parts 400 to 424.....$6.50

(b) Code of Federal Regulations, Protection of Environment, 40, Part 425 to End.....$12.00

3. Any person who discharges a pollutant into a publicly owned treatment works shall allow the director to enter the person's premises in which an effluent source is located, or to sample any discharge.

(Added to NAC by Environmental Comm'n, eff. 12-3-84)—(Substituted in revision for NAC 445.1655)

NAC 445A.255 Discharge from publicly owned treatment works: Notice to director.

1. If the permit is for a discharge from a publicly owned treatment works, the holder of the permit shall provide notice to the director of:

(a) Any new introduction of pollutants into the treatment works from a source which would be a new source as defined in section 306 of the Act if the source were discharging pollutants;

(b) Any new introduction of pollutants into the treatment works from a source which would be subject to section 301 of the Act if the source were discharging pollutants, except for such categories and classes of point sources or discharges as are specified by the director; and

(c) Any substantial change in the volume or character of pollutants being introduced into the treatment works at the time of issuance of the permit.

2. The notice must include information on:

(a) The quality and quantity of effluent to be introduced into the treatment works; and

(b) Any anticipated effect of the change upon the quality or quantity of effluent to be discharged from the publicly owned treatment works.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.4.3.4-2.4.3.4.3, eff. 5-2-78; A 12-20-79]—(Substituted in revision for NAC 445.166)

NAC 445A.256 Discharge from publicly owned treatment works capable of administering pretreatment program.

1. If the permit is for a discharge from a publicly owned treatment works capable of administering a pretreatment program as determined by the state, the holder of the permit shall require any industrial user of the treatment works to comply with the requirements of 33 U.S.C. §§ 1284(b), 1317 and 1318. The holder of the permit shall require that each industrial user subject to 33 U.S.C. § 1317 submit written notices no less often than every 9 months describing the user's progress in complying with the requirements imposed pursuant to that section.

2. As a means of ensuring that compliance, the holder shall use a system of permits or any other administrative device deemed appropriate which requires compliance by the industrial user with the pretreatment program.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.3.5, eff. 5-2-78; A 10-26-79]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.167)

NAC 445A.257 Discharge from publicly owned treatment works without pretreatment program. (NRS 445A.425, 445A.465)

1. Any industrial user who discharges into a publicly owned treatment works which does not have a state approved pretreatment program may be granted a permit by the state. The division of environmental protection shall administer the program of pretreatment for any publicly owned treatment works that does not have a pretreatment program and shall ensure the compliance of each user of the program with the requirements of 33 U.S.C. §§ 1284(b), 1317 and 1318 and 40 C.F.R. §§ 401.10 et seq.

2. The division of environmental protection of the state department of conservation and natural resources shall administer the pretreatment program for any publicly owned treatment works which does not have a state approved pretreatment program and ensure compliance by any industrial user, subject to the pretreatment program with the requirements of sections 204(b), 307 and 308 of the Act, 33 U.S.C. §§ 1284(b), 1317 and 1318, and any regulations adopted thereunder.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.3.5.1, eff. 10-26-79; A 12-20-79]—(NAC A 12-3-84; R020-99, 9-27-99)

NAC 445A.258 Notice of changes in discharges of pollutants; expansion of facilities, increase in production or modification of process.

1. All discharges authorized by the permit must be consistent with the terms and conditions of the permit. Facility expansions, production increases or process modifications which result in any new or increased discharges of pollutants must be reported by submitting a new permit application or, if the discharge does not violate effluent limitations specified in the permit, by submission to the director a notice of new or increased discharges of pollutants.

2. The discharge of any pollutant not identified and authorized by the permit or the discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by the permit constitutes a violation of the terms and conditions of the permit.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.3.1, eff. 5-2-78; A 12-20-79]—(Substituted in revision for NAC 445.169)

NAC 445A.259 Maintenance of facilities required. The holder of the permit shall at all times maintain in good working order and operate as efficiently as possible any facilities or systems of control installed by the holder to achieve compliance with the terms and conditions of the permit.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.3.6, eff. 5-2-78]—(Substituted in revision for NAC 445.170)

NAC 445A.260 Emergency powers of director. (NRS 445A.425) In accordance with the powers granted in NRS 33.010, subsection 1 of NRS 445A.445 and NRS 445A.675 and 445A.685 to 445A.705, inclusive, the director may take any appropriate action authorized under the law against a pollution source or any combination of sources which the director has evidence is presenting an imminent and substantial endangerment to the health and welfare of persons, where such endangerment is to the livelihood of such persons.

[Environmental Comm'n, Water Pollution Control Reg. § 2.10.1, eff. 5-2-78]—(NAC A by R020-99, 9-27-99)

NAC 445A.261 Modification, suspension, revocation of permit: Grounds. (NRS 445A.425, 445A.465) The permit may be modified, suspended or revoked in whole or in part for cause including, but not limited to, the following:

1. A violation of any term or condition of the permit.
2. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts.
3. A change in conditions or the existence of a condition, which requires either a temporary or permanent reduction or an elimination of the permitted activity. Any such revocation, modification or suspension is effective no later than 30 days after the holder of the permit receives written notice, issued by the director, of the facts or conduct warranting such action.
4. A determination by the department that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by modifying, suspending or revoking the permit.
5. Material and substantial alterations or additions to the permitted facility or activity that occurred after the permit was issued which justify the application of new permit conditions or permit conditions that differ from the permit conditions in the existing permit.
6. The department receives new information which was not available at the time the permit was issued that would have justified the application of different conditions of the permit.
7. The standards or regulations on which the permit was based have changed.
8. The department receives notification of a proposed transfer of the permit.
9. A demonstration by any interested person that factors relating to an industrial user are fundamentally different from the factors considered during development of a categorical pretreatment standard applicable to that user. The demonstration must be made in accordance with 40 C.F.R. § 403.13.
10. A demonstration by any interested person that a publicly owned treatment works consistently removes a pollutant for which a categorical pretreatment standard has been established. The demonstration must be in accordance with 40 C.F.R. § 403.7.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.4.3.2-2.4.3.2.3, eff. 5-2-78; A 12-20-79; §§ 2.4.3.2.4 & 2.4.3.2.5, eff. 12-20-79]—(NAC A by R020-99, 9-27-99)

NAC 445A.262 Modification of permit to meet toxic effluent standard. If a toxic effluent standard or prohibition (including any schedule of compliance specified in the effluent standard or prohibition) is established under section 307(a) of the Act for a toxic pollutant which is present in the discharge of the holder of the permit and the standard or prohibition is more stringent than any limitation upon the pollutant in the permit, the director shall revise or modify the permit in accordance with the toxic effluent standard or prohibition and so notify the holder.

[Environmental Comm'n, Water Pollution Control Reg. § 2.4.3.7, eff. 5-2-78; A 12-20-79]—(Substituted in revision for NAC 445.173)

NAC 445A.263 Modification, suspension or revocation of permit: Procedure. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in this section, the director may, after notice and opportunity for a public hearing, modify, suspend or revoke any permit in whole or in part during its term for cause, including, but not limited to, the causes listed in NAC 445A.261, or for failure or refusal of the holder of the permit to carry out the requirements of NAC 445A.247.
2. The director may, upon the request of the holder of the permit, modify a schedule of compliance in an issued permit if:

(a) He determines good cause, including, without limitation, an act of God, or a strike, flood, materials shortage or any other event over which the holder has little or no control, exists for the modification; and

(b) Within 30 days after receipt of notice from the director, the regional administrator does not object in writing.

3. The director may, upon request of the holder of a permit, modify or revoke and reissue a permit to identify a new holder of the permit and incorporate such other requirements as necessary if:

(a) The current holder of the permit notifies the department at least 30 days before the proposed date of the transfer; and

(b) The notice provided pursuant to paragraph (a) includes, without limitation, a written agreement between the existing and new holders of the permit containing a specific date for transfer of the permit responsibility, coverage and liability.

4. With the consent of the holder of the permit and without public notice, the director may make minor modifications to a permit to:

(a) Correct typographical errors;

(b) Clarify the language of the permit;

(c) Require more frequent monitoring or reporting by the holder of the permit;

(d) Change an interim compliance date;

(e) Allow for a change in ownership or operational control of a facility if the department determines that no other change in the permit is necessary and a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new holders of the permit has been submitted to the department;

(f) Change the construction schedule for a discharger which is a new source if such a change does not affect an obligation of the discharger to have all pollution control equipment installed and in operation before discharge;

(g) Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits; or

(h) Reduce the limit of flow, in gallons per day, of the discharge authorized in the permit.

5. The director may reissue a permit that has been revoked and may require an updated application from the holder of the revoked permit.

6. If a permit is to be modified, only the conditions that are subject to modification may be considered or affected by the modification. If a permit is to be revoked and reissued, the entire permit may be considered and is subject to revision.

7. A person aggrieved by the modification, suspension or revocation of a permit may file notice of appeal with the commission within 10 days after the date of notice of action of the department, except as otherwise provided by law.

[Environmental Comm'n, Water Pollution Control Reg. §§ 2.8.1-2.8.3, eff. 5-2-78]—(NAC A by R020-99, 9-27-99; R206-99, 1-26-2000)

General Permits

NAC 445A.266 Issuance of permit; notice of intent to engage in activity; location of facility approved to operate under permit; requirements for discharge. (NRS 445A.425, 445A.465)

1. A general permit may be issued for:

(a) A discharge;

(b) The reuse or ultimate disposal of treated wastewater and sludge; or

(c) Rolling stock for work in waters of this state, including, but not limited to, dredging or filling, bank stabilization or restoration, channel clearance, construction of irrigation diversions or pipe crossings, and the clearance of vegetation, debris or temporary obstructions.

2. The department will process a notice of intent to engage in an activity for which a general permit has been issued pursuant to this section not later than 60 days after the date on which the department receives the completed notice of intent and the required fees, unless the administrator of the division determines that it is in the public interest to hold a public hearing regarding the notice of intent. Upon making such a determination, the administrator of the division shall promptly notify the person who submitted the notice of intent that a public hearing will be held regarding the notice of intent.

3. A facility discharging any pollutant into any waters of this state must be located within:

(a) An area designated for water quality planning;

(b) A sewer district or a sewer authority;

(c) The political boundaries of a city or county;
(d) A state or county highway system; or
(e) Any other division or combination of boundaries deemed appropriate by the director, to be approved to operate under a general permit.
4. Discharges from a facility described in subsection 3 must:
(a) Involve the same or substantially similar types of operations;
(b) Discharge the same types of pollutants or engage in the same types of use or disposal;
(c) Require the same effluent limitations, operating conditions or standards for reuse or disposal;
(d) Contain storm water;
(e) Require the same or similar monitoring; or
(f) In the opinion of the director, be more appropriately regulated by a general permit than by an individual permit.
5. A general permit may not include a facility that holds an individual permit.
(Added to NAC by Environmental Comm'n, eff. 3-18-92; A 10-29-97)

NAC 445A.267 Procedures for issuance, reissuance, denial, modification, suspension or revocation of permit. A general permit must be issued, reissued, denied, modified, suspended or revoked in accordance with the provisions of NAC 445A.261 and 445A.263 and NRS 445A.600.
(Added to NAC by Environmental Comm'n, eff. 3-18-92)—(Substituted in revision for NAC 445.1751)

NAC 445A.268 Application for permit; request to be included in permit; fees.
1. A general permit may be issued upon proper application by a group of dischargers whose facilities meet the requirements of NAC 445A.266. The application must include:
(a) The name and address of the discharger;
(b) The exact location of the discharge;
(c) The nature of the discharge;
(d) The name and location of the receiving waters;
(e) The quantity and quality of the discharge; and
(f) Any other information deemed necessary by the director for the determination of whether the discharger should be included in the general permit.
2. A general permit may be issued without application if the director deems it appropriate.
3. If a general permit has been issued, a discharger who is eligible to be covered under the permit may submit a request to the director to be included in the general permit. Such a request must include the information required by subsection 1, be accompanied by a nonrefundable fee of $200 and be signed in the manner prescribed by NAC 445A.231 for application and reporting forms. If such a request is denied because the director has determined that the discharger must be covered under an individual permit, the director must inform the holder pursuant to the provisions of NAC 445A.269.
4. A discharger will not be covered under a general permit until he has been notified by the director.
5. A discharger who is covered under a general permit shall pay to the director a nonrefundable fee of $200 not later than July 1 of each year that the discharger is covered under that permit.
(Added to NAC by Environmental Comm'n, eff. 3-18-92; A 10-29-93)—(Substituted in revision for NAC 445.1752)

NAC 445A.269 Notice of requirement to obtain individual permit; grant of additional time.
1. If the holder of a general permit is required to obtain an individual permit pursuant to NRS 445A.480, the director must inform the holder of the requirement by written notice. The written notice must include:

(a) A brief statement of the reasons for the decision to require an individual permit;
(b) An application form for an individual permit;
(c) The fee schedule of an application for an individual permit;
(d) The time by which the application must be received by the department; and
(e) A statement that coverage by the general permit expires on the effective date of the individual permit.

2. The director may grant additional time for good cause upon request by the holder of the general permit.

(Added to NAC by Environmental Comm'n, eff. 3-18-92)—(Substituted in revision for NAC 445.1753)

NAC 445A.270 Petition for exclusion from permit; application for individual permit.

1. Any interested person may file a written petition with the director requesting that the holder of a general permit be excluded from the general permit and be required to apply for and obtain an individual permit.

2. If a holder of a general permit has petitioned the director to be excluded from the general permit pursuant to subsection 1, he must apply for an individual permit within 30 days after he files the petition with the director.

(Added to NAC by Environmental Comm'n, eff. 3-18-92)—(Substituted in revision for NAC 445.1754)

NAC 445A.271 Termination of applicability of permit upon issuance of individual permit. If an individual permit is issued to a discharger otherwise subject to a general permit, the applicability of the general permit to the individual permittee is automatically terminated on the effective date of the individual permit.

(Added to NAC by Environmental Comm'n, eff. 3-18-92)—(Substituted in revision for NAC 445.1755)

NAC 445A.272 Termination of applicability of individual permit upon inclusion in general permit. A holder of an individual permit who is excluded from a general permit solely because he holds the individual permit may request that the individual permit be revoked and that he be included in the general permit. The applicability of the individual permit is automatically terminated upon notification by the director that the discharger is included in the general permit.

(Added to NAC by Environmental Comm'n, eff. 3-18-92)—(Substituted in revision for NAC 445.1756)

Corrective Action

NAC 445A.273 Definitions. As used in NAC 445A.273 to 445A.2739, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.2731 to 445A.2737, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2731 "Corrective action" defined. "Corrective action" means the permanent remedial action that is taken after the release of a hazardous substance, hazardous waste or regulated substance to prevent the element or chemical from posing a threat or potential threat to the present or future health of the public or to the environment.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2732 "Cost" and "costs" defined. "Cost" or "costs" means all costs and expenses which are incurred and money which is expended by the division and reimbursed at a later date by an owner or operator.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2733 "Fee" defined. "Fee" means an amount of money determined by the division as an estimate of the costs and expenses that will be incurred by the division pursuant to NAC 445A.273 to 445A.2739, inclusive, which is assessed in advance of expenditure by the division.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2734 "Major corrective site" defined. "Major corrective site" means a site which:

1. Is the subject of an administrative order issued by the division or a civil action brought by the division against the owner or operator;
2. Is a treatment, storage or disposal site, or any combination thereof, as defined by federal or state law, and has been identified as having contaminated soil or ground water;
3. Is the subject of a written corrective action agreement between the division and the owner, operator or responsible federal agency or agencies; or
4. Has an estimated yearly oversight cost to the division which exceeds $10,000, including all costs incurred by the division for the staff time required, overhead, contract support, equipment and travel.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2735 "Minor corrective action site" defined. "Minor corrective action site" means a site:

1. At which the environmental contamination is relatively confined with minimal actual or potential impact on human health or the environment;
2. At which an identified owner or operator is present who is working in cooperation with the division for remediation of the site;
3. For which no civil action is pending and no administrative orders have been issued to the owner or operator;
4. Which is not under corrective action by the division using federal funding related to leaking underground storage tanks or related state funding; and
5. Which is not a treatment, storage or disposal site under federal law.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2736 "Operator" defined. "Operator" means a person who is in control of or has responsibility for the daily operation of a site, business or other operation where a hazardous substance, hazardous waste or a regulated substance is or has been disposed of, used or stored.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2737 "Owner" defined. "Owner" means a person who owns property on which a hazardous substance, hazardous waste or a regulated substance is or has been disposed of, used or stored.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2738 Recovery of costs and fees: Minor sites; federal funding for leaking underground storage tanks; state funding.

1. The division shall not seek to recover costs or fees for minor sites.
2. The division shall seek to recover costs or fees for sites where federal funding for leaking underground storage tanks or state funding is used.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

NAC 445A.2739 Reimbursement of costs and assessment of fees: Major sites. The division may seek reimbursement for costs or assess fees on a cooperative basis with the owner or operator for major sites as follows:

1. If the division estimates that the total time for oversight by the division will be less than 240 hours and that the time to achieve site closure will be less than one year, the division shall determine the costs or fees using the average salary of the oversight personnel including fringe benefits, indirect costs, travel costs and operating expenses.

2. If the division estimates that the total time for oversight by the division will be 240 hours or more or that the time to achieve site closure will be one year or more, the division and the owner or operator of the site may enter into a contract with a third person to provide the oversight required by the division. Before such a contract is executed, the division shall enter into a consent agreement with the owner or operator of the site. The agreement must:

(a) State the estimated reimbursable costs to be incurred by the division for the oversight;

(b) Identify the tasks to be performed by the contractor for the oversight and state the associated costs; and

(c) Include a provision requiring that the costs and fees included in the contract be reevaluated annually on the basis of the projected tasks for each subsequent year.

3. If the division determines that it is necessary to dedicate existing or new resources to the oversight of a site, the costs and fees for the project must be stated in a consent agreement between the division and the owner or operator. Such an agreement must include:

(a) A provision which identifies the number of employees of the division and the type of skills that they must possess;

(b) The salary, fringe benefits, indirect costs and all related costs of operating, travel, training and equipment for those employees, based upon the state classification system for the type of skills necessary to perform the task; and

(c) A provision requiring that the costs and fees be reevaluated annually on the basis of the projected tasks for each subsequent year.

4. If the division collects fees in excess of the expenditures actually made, the division shall apply the excess fees to reduce the amount of fees assessed in a subsequent year.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

Use of Treated Effluent for Irrigation

NAC 445A.275 General requirements and restrictions.

1. A person shall not use treated effluent for irrigation unless he has:

(a) Submitted to the division and has received the approval of the division of a plan for the management of effluent; and

(b) Obtained a permit pursuant to NAC 445A.228 to 445A.263, inclusive.

2. A person using treated effluent for irrigation by flooding or sprinklers shall use effluent that has received at least secondary treatment. As used in this subsection:

(a) "Secondary treatment" means the biological oxidization of the sewage to a point where the sewage has a 5-day inhibited biochemical oxygen demand concentration of 30 milligrams per liter or less.

(b) "Five-day inhibited biochemical oxygen demand" means the amount of dissolved oxygen in milligrams per liter required during stabilization of the carbonaceous decomposable organic matter by aerobic bacterial action at 20 degrees centigrade for 5 days.

3. Any person using treated effluent for irrigation shall post a notice at the site of irrigation warning the general public to avoid contact with the treated effluent.

4. Except as otherwise provided in this subsection, a person shall not use treated effluent to irrigate crops for human consumption. A person may use treated effluent for surface irrigation of fruit bearing trees and nut bearing trees.

5. A person using treated effluent to irrigate by sprinklers shall conduct the irrigation in a manner which inhibits the treated effluent from drifting or carrying outside the buffer zone.

6. A person shall not allow treated effluent used in irrigation to run off the site being irrigated.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.176)

REVISER'S NOTE.

The regulation of the state environmental commission filed with the secretary of state on September 13, 1991, the source of NAC 445A.275 to 445A.280, inclusive, became effective on that date and contains the following provisions not included in NAC:

"Notwithstanding the provisions of sections 2 to 8, inclusive, of this regulation, a person who:

1. Is using treated effluent for irrigation on the effective date of this regulation without having obtained a permit pursuant to NAC 445A.228 to 445A.263, inclusive; and

2. Has submitted to the state department of conservation and natural resources a completed application for obtaining a permit pursuant to NAC 445A.228 to 445A.263, inclusive, within 180 days after the effective date of this regulation,

may continue to use treated effluent for irrigation without having obtained a permit until the state department of conservation and natural resources takes action upon the application for a permit."

NAC 445A.276 Spray irrigation: Requirements for bacteriological quality and buffer zone limitations.

1. Treated effluent being used for spray irrigation must meet the following requirements for bacteriological quality and buffer zone limitations:

	Fecal Coliform			
	c.f.u. or mpn/100 ml			
Reuse Permitted	A	A(1)	B	C
30-day geometric mean	No Limit	200	23	2.2
Maximum daily number	No Limit	400	240	23
Minimum Buffer Zone (Feet)	800	400	100	0

2. As used in this section:

(a) Category "A" means irrigation with treated effluent of land used for:

(1) Pasture; or

(2) Other agricultural purposes except growing crops for human consumption,

where public access to the site being irrigated is prohibited. Treated effluent being used for activities falling within category A must meet the requirements for bacteriological quality and buffer zone limitations identified in subsection 1 as applicable to category A or meet the requirements for bacteriological quality and buffer zone limitations identified in subsection 1 as applicable to category A(1).

(b) Category "B" means irrigation with treated effluent of land used for:

(1) A golf course, cemetery or greenbelt where public access to the site being irrigated is controlled and human contact with the treated effluent does not occur;

(2) An impoundment where all activities are prohibited and human contact with the treated effluent does not occur; or

(3) Any combination of a use listed in paragraph (a) and a use listed in subparagraph (1) or (2) of this paragraph.

Treated effluent being used for activities falling within category B must meet the requirements for bacteriological quality and buffer zone limitations identified in subsection 1 as applicable to category B.

(c) Category "C" means irrigation with treated effluent of land used for:

(1) A cemetery, highway median, greenbelt, park, playground or residential or commercial lawn where public access to the site being irrigated is controlled and human contact with the treated effluent cannot reasonably be expected;

(2) Impoundments where full body contact with the treated effluent cannot reasonably be expected;

(3) Any other purpose not included in category A or B; or

(4) Any combination of an activity listed in paragraph (a) or (b) and an activity listed in subparagraph (1), (2) or (3) of this paragraph.

Treated effluent being used for activities falling within category C must meet the requirements for bacteriological quality and buffer zone limitations identified in subsection 1 as applicable to category C.

(d) "C.f.u. or mpn/100 ml" means colony forming units or most probable number per 100 milliliters of the treated effluent.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.1765)

NAC 445A.277 Exceptions to requirements for buffer zone and control of public access. A buffer zone and control of public access is not required where treated effluent is used for irrigation of land used for a cemetery, golf course, greenbelt, impoundment where full body contact can reasonably be expected, park, playground or commercial or residential lawn, if the treated effluent:

1. Has a total coliform concentration of 2.2, or less, per 100 milliliters of the treated effluent as a 30-day geometric mean; and
2. Has a total coliform concentration of 23, or less, per 100 milliliters of the treated effluent as a maximum daily number.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.177)

NAC 445A.278 Drip or surface irrigation of landscape: Minimum level of disinfection. The minimum level of disinfection for drip irrigation of landscape and surface irrigation of landscape with treated effluent in areas where public access is controlled is 200 fecal coliform per 100 milliliters of the treated effluent as a 30-day geometric mean and 400 fecal coliform per 100 milliliters of the treated effluent as a maximum daily number.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.1775)

NAC 445A.279 Determining quality of effluent: Storage reservoirs excluded from treatment process. For the purpose of determining the quality of effluent, storage reservoirs do not constitute part of the treatment process.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.178)

NAC 445A.280 Waiver or modification of requirements. The director may waive compliance with or modify any requirement of NAC 445A.275 to 445A.280, inclusive, for a specific project of irrigation upon his determination that because of the size, type or location of the project of irrigation, the waiver or modification is consistent with the policy set forth in NRS 445A.305.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.1785)

Treatment Works

NAC 445A.283 Permit required to construct, install, expand or modify treatment works. No person without first obtaining a permit from the department may:

1. Construct, install, expand or significantly modify any factory, mill, plant or other industrial or commercial facility which will result in a discharge not authorized by an existing permit to waters of the state.

2. Add extensions to existing municipal or privately owned sewer systems or provide new sewer service to existing or newly constructed buildings which could cause the raw sewage influent to the treatment plant to exceed the limits prescribed by the permit issued in accordance with NAC 445A.228 to 445A.263, inclusive.

3. Construct, install or significantly modify any facilities designed or used for treatment or discharge of pollutants.

[Environmental Comm'n, Water Pollution Control Reg. §§ 3.1.1-3.1.3, eff. 5-2-78]—(Substituted in revision for NAC 445.179)

NAC 445A.284 Design and construction of treatment works.

1. In reviewing the design of treatment works, the department shall use as guidelines the applicable requirements of "Ten State Standards," appropriate American Society of Civil Engineers Manual of Engineering Practice or federal or other accepted engineering guidelines.

2. As a minimum, sewerage system designs must be based on 100 gallons (378.5 liters) per person per day and 3.5 persons per lot or dwelling unit and peak flows, unless the design engineer can demonstrate validity of other design criteria derived from existing records of the sewering authority for an area of like development on the system or from the general plan of the local government.

3. Complete engineering plans and specifications prepared by a qualified professional engineer, authorized under state law to prepare such plans and specifications, must be submitted, covering such items as sewage collection, treatment and disposal and all other matters properly relating thereto.

4. If a discharge to the waters of the state is proposed, the design of the treatment works must ensure compliance with the appropriate provisions of NAC 445A.228 to 445A.263, inclusive.

[Environmental Comm'n, Water Pollution Control Reg. §§ 3.2.1-3.2.4, eff. 5-2-78]—(Substituted in revision for NAC 445.180)

NAC 445A.285 Location of treatment works.

1. In locating the site for a treatment works, the designer shall attempt to select a site that is not:

(a) Within 984.3 feet (300 meters) of an occupied dwelling or other building.

(b) Within the limits of a 100-year floodplain unless protected from the flood to the satisfaction of the department.

2. No site may be approved by the department without having first been approved by local government.

[Environmental Comm'n, Water Pollution Control Reg. §§ 3.3.1-3.3.2, eff. 5-2-78]—(Substituted in revision for NAC 445.181)

NAC 445A.286 Plants for sewage treatment: Applicability of provisions. (NRS 445A.425) The provisions of NAC 445A.286 to 445A.292, inclusive, do not apply to:

1. A package plant for sewage treatment with a capacity of 5,000 gallons or less per day; or

2. Any other plant for sewage treatment, including, without limitation, a septic system, with a capacity of 10,000 gallons or less per day.

(Added to NAC by Environmental Comm'n, eff. 5-27-92; A by R037-02, 10-18-2002)

NAC 445A.287 Plants for sewage treatment: Persons required to be certified as operators; application and fees for certification; renewal of certificate. (NRS 445A.425)

1. A person responsible for the operation and maintenance of a plant for sewage treatment must be certified as an operator of a plant for sewage treatment.

2. To apply for certification as an operator of a plant for sewage treatment, a person must submit an application to the division or its approved designee that is accompanied by the appropriate fee.

3. The following fees must be paid to the division:

Certification	Fee	Period
Initial	$60	2 years
Reciprocal	75	2 years

4. The holder of a certificate must pay to the division a fee of $20 for each duplicate certificate he requests. A fee of $25 will be charged to any person whose check is returned to the division because of a lack of funds.

5. A holder of any certificate issued pursuant to the provisions of NAC 445A.286 to 445A.292, inclusive, may renew the certificate by submitting a fee of $30 to the division not later than the expiration date of the certificate. Except as otherwise provided in subsection 6, the holder of a certificate may renew his certificate after the expiration date of the certificate if he pays, in addition to the renewal fee, a late fee of $20. If the holder of a certificate does not renew the certificate within 1 year after the expiration date of the certificate, the holder of the certificate shall be deemed decertified.

6. The holder of a certificate who is decertified may not renew his certificate.

7. The renewal of a certificate is effective for 2 years.

(Added to NAC by Environmental Comm'n, eff. 5-27-92; A 3-1-94; R037-02, 10-18-2002)

NAC 445A.288 Plants for sewage treatment: Agreement to operate program for certification of operators. (NRS 445A.425)

1. If the division chooses not to operate the program for the certification of operators of plants for sewage treatment, the division shall enter into an agreement with an approved designee pursuant to which the designee agrees to operate the program.

2. Any agreement entered into pursuant to subsection 1 must provide that the designee will:

(a) Distribute application forms;

(b) Evaluate applications;

(c) Conduct examinations;

(d) Evaluate the training, education and experience of the applicants;

(e) Inform an applicant that the division has denied his application for certification or recommend that the division certify the applicant; and

(f) Perform any other duty specified in the agreement.

(Added to NAC by Environmental Comm'n, eff. 5-27-92; A by R037-02, 10-18-2002)

NAC 445A.289 Plants for sewage treatment: Schedule for classification. (NRS 445A.425)

1. For the purpose of the certification program operated pursuant to the provisions of NAC 445A.284 and 445A.288, a plant for sewage treatment must be classified in accordance with the following schedule:

PLANT CLASSIFICATION based on the type of treatment process and plant capacity:

	0-0.1 MGD	0.11-1.0 MGD	1.1-5.0 MGD	5.1-10.0 MGD	10.1-20.0 MGD	Greater than 20.0 MGD
Stabilization Pond	I	I	I	I	II	III
Primary	I	I	II	III	III	IV

	0-0.1 MGD	0.11-1.0 MGD	1.1-5.0 MGD	5.1-10.0 MGD	10.1-20.0 MGD	Greater than 20.0 MGD
Biofiltration	II	II	III	III	IV	IV
Activated Sludge	III	III	III	IV	IV	IV
Tertiary and Reuse	III	III	IV	IV	IV	IV

2. As used in this section, "MGD" means millions of gallons per day.

(Added to NAC by Environmental Comm'n, eff. 5-27-92; A by R037-02, 10-18-2002)

NAC 445A.290 Plants for sewage treatment: Minimum grades of certification for operators. (NRS 445A.425)

1. The minimum grades of certification for operators of plants for sewage treatment are as follows:

GRADES OF CERTIFICATION based on the classification of the plant:

	Plant Classification I	Plant Classification II	Plant Classification III	Plant Classification IV
Supervisor	I	II	III	IV
Assistant Supervisor	I	I	II	III

2. Any person, other than a supervisor or assistant supervisor, who is working as an operator of a plant for sewage treatment must be certified as at least a Grade I operator of a plant for sewage treatment, or obtain such certification within 1 year after the date on which he begins his employment at the plant for sewage treatment as such an operator.

3. As used in this section:

(a) "Assistant supervisor" means the person in direct responsible charge of the operations of a plant for sewage treatment in the absence of the supervisor.

(b) "Person in direct responsible charge" means a person who is responsible for all activities associated with the operations of a plant for sewage treatment and compliance with all applicable provisions of NRS and NAC relating to the operations of such a plant.

(c) "Supervisor" means the person in direct responsible charge of the operations of a plant for sewage treatment.

(Added to NAC by Environmental Comm'n, eff. 5-27-92; A by R037-02, 10-18-2002)

NAC 445A.292 Plants for sewage treatment: Provisional certification of operator. (NRS 445A.425)

1. The division shall renew a provisional certificate as an operator of a plant for sewage treatment, without examination, only to a person who:

(a) Held a provisional certificate on July 1, 1991;

(b) Pays the appropriate fee; and

(c) Submits the proper application for certification.

2. A provisional certificate is valid until:

(a) The applicant's employment by that plant ceases for any reason; or

(b) The applicant assumes a position of employment at the plant that is different from the position he held on July 1, 1991.

(Added to NAC by Environmental Comm'n, eff. 5-27-92; A by R037-02, 10-18-2002)

Zones of Mixing

NAC 445A.295 Purpose. A zone of mixing for the assimilation of municipal, agricultural and industrial discharges from point sources which have received the best degree of treatment or control practicable under existing technology is recognized as necessary. The purpose of this limited zone is to provide for a current realistic means of control over such discharges and at the same time achieve the highest attainable level of water quality.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h par. 1, eff. 5-2-78; A 7-2-80]—(Substituted in revision for NAC 445.187)

NAC 445A.296 Application.

1. Every application for a zone of mixing must:

(a) Be made to the director and be accompanied by a complete and detailed description of the present physical, chemical, biological and radiological conditions of the receiving waters and of the proposed zone of mixing.

(b) Include a demonstration that no violation of water quality standards occurs at any point designated by the director and no appreciable harm to beneficial uses, either designated or actual, will result from the proposed zone of mixing and such other information as the director may prescribe.

(c) Identify, by discharge, the individual water quality parameters for which the zone of mixing is requested.

(d) Be submitted along with an application for a discharge permit or a request for modification of a discharge permit.

2. A separate permit is not issued for mixing zones. All requirements and authorizations must be part of a discharge permit issued or reissued pursuant to NAC 445A.228 to 445A.263, inclusive. The fact sheet required by NAC 445A.236 must contain a summary of data from which the zone of mixing was determined.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h pars. 2 & 9, eff. 5-2-78; A 7-2-80]—(Substituted in revision for NAC 445.188)

NAC 445A.297 Review of application by director.

1. Each application for a zone of mixing must be reviewed in light of the descriptions, statements, plans, histories and other supporting information.

2. The review must result in a determination by the director concerning the appropriateness of a zone of mixing for each water quality parameter, by discharge, identified in the application.

3. Zones of mixing must not be granted by the director unless the applicant and supporting information clearly demonstrate that the discharge occurring or proposed to occur:

(a) Does not substantially endanger human health or safety;

(b) Will assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on that body of water; and

(c) Will not cause a violation of water quality standards at any point designated by the director.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h pars. 3 & 5, eff. 5-2-78; A 7-2-80]—(NAC A 11-1-95)

NAC 445A.298 Establishment by director.

1. The director shall establish a zone of mixing so that the standards for quality of water for individual parameters determined to be appropriate pursuant to subsection 1 of NAC 445A.297 for the receiving water, but in no case including esthetic and acute toxicity values, may be relaxed within the zone of mixing.

2. In determining the size of a zone of mixing, each application must be reviewed on a case-by-case basis taking into consideration the quality of effluent of wastewater discharged and the nature and condition of the receiving water, including the effects of the effluent or wastewater on the designated or actual beneficial uses of the receiving water and standards for quality of water.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h par. 4, eff. 5-2-78; A 7-2-80]—(Substituted in revision for NAC 445.190)

NAC 445A.299 Zone of passage. Stream-mixing zones in which the standards for water quality may be exceeded must be designed to ensure that a zone of passage is maintained. The allowable stream-mixing zone must be oriented in the stream in a manner which permits the greatest effectiveness of the zone of passage.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h par. 6, eff. 5-2-78]—(Substituted in revision for NAC 445.191)

NAC 445A.300 Periodic review. The director shall periodically review all zones of mixing and may terminate or modify any such zones for which the conditions of approval of the zone of mixing have changed.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h par. 10, eff. 5-2-78; A 7-2-80]—(Substituted in revision for NAC 445.192)

NAC 445A.301 Termination. The zone of mixing automatically terminates at the expiration of the period in the designation and no rights vest in the designee unless an application for renewal of a zone of mixing has been made.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h par. 8, eff. 5-2-78; A 7-2-80]—(Substituted in revision for NAC 445.193)

NAC 445A.302 Renewal.

1. Any zone of mixing may be granted or renewed for periods not exceeding 5 years.
2. Applications for renewal:

(a) Must be made before the expiration of the period concerning the zone of mixing.

(b) May be granted by the director if the application for renewal has met all of the conditions specified for the immediately preceding zone of mixing granted pursuant to NAC 445A.295 to 445A.302, inclusive.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsec. h par. 7, eff. 5-2-78; A 7-2-80]—(Substituted in revision for NAC 445.194)

Diffuse Sources

NAC 445A.305 Definitions. As used in NAC 445A.305 to 445A.340, inclusive, unless the context otherwise requires, the words and terms defined in NRS 445A.315 to 445A.370, inclusive, in NRS 445A.380 to 445A.420, inclusive, and in NAC 445A.306 to 445A.312, inclusive, have the meanings ascribed to them in those sections.

[Environmental Comm'n, Diffuse Source Control Reg. part Art. 1, eff. 10-16-80]—(Substituted in revision for NAC 445.199)

NAC 445A.306 "Best practices" defined. "Best practices" means measures, methods of operation or practices which are reasonably designed to prevent, eliminate or reduce water pollution from diffuse sources and which are consistent with the best practices in the particular field under the conditions applicable. This term is intended to be equivalent to the term "best management practices" as used in federal statutes and regulations.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.1, eff. 10-16-80]—(Substituted in revision for NAC 445.200)

NAC 445A.307 "Conservation district" defined. "Conservation district" has the meaning ascribed to it in NRS 548.032.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.2, eff. 10-16-80]—(Substituted in revision for NAC 445.201)

NAC 445A.308 "Conservation plan" defined. "Conservation plan" means a plan prepared in cooperation with or reviewed by a conservation district, which addresses the use, maintenance or improvement of soil, water and plant resources of the land covered by the plan.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.3, eff. 10-16-80]—(Substituted in revision for NAC 445.202)

NAC 445A.309 "Diffuse source" defined. (NRS 445A.425, 445A.570) "Diffuse source" includes:

1. Agricultural activity, including return flows from irrigation;
2. Silvicultural activity;
3. Mining activity;
4. Runoff from construction activities associated with buildings, roads, dams, utility lines or other improvements or facilities;
5. Runoff from roads, streets and railroads;
6. Runoff from construction activities associated with recreational trails or the use of recreational trails;
7. Modification of water courses or stream channels; and
8. Runoff from urban areas.

The term includes any of the items specified in this section regardless of whether wheeled, track, stationary or floating equipment is used for earth-moving activity.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.4, eff. 10-16-80]—(NAC A by R096-01, 1-18-2002)

NAC 445A.310 "Municipality" defined. "Municipality" means a county or incorporated city.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.5, eff. 10-16-80]—(Substituted in revision for NAC 445.204)

NAC 445A.311 "Panel" defined. "Panel" means a body consisting of three or more members appointed by the commission from its own membership to consider and decide appeals made to the commission under NAC 445A.305 to 445A.340, inclusive.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.6, eff. 10-16-80]—(Substituted in revision for NAC 445.205)

NAC 445A.312 "Resources management plan" defined. "Resources management plan" means a plan which is prepared by a federal agency administering land in consultation with the state or a municipality and which is reasonably designed to prevent, eliminate or reduce water pollution from diffuse sources resulting from the use, maintenance or improvement of soil, water and plant resources.

[Environmental Comm'n, Diffuse Source Control Reg. § 1.7, eff. 10-16-80]—(Substituted in revision for NAC 445.206)

NAC 445A.313 Exemptions.

1. NAC 445A.305 to 445A.340, inclusive, does not require any person to remedy, control or correct any nonconformance with standards for water quality which results exclusively from natural rather than man-made causes.
2. The following activities are not subject to the provisions of NAC 445A.305 to 445A.340, inclusive:

(a) Home gardening, landscaping, repairs and maintenance;

(b) Connection of utility services for single dwellings;
(c) Installation of fences and sign posts;
(d) Installation and maintenance along existing roadways of overhead transmission lines for telephones, telegraph and cable television and of electric transmission lines of a design capacity of less than 200 kilovolts; and
(e) Emergency work to protect persons or property.
[Environmental Comm'n, Diffuse Source Control Reg. §§ 6.3.1 & 6.3.2, eff. 10-16-80]—(Substituted in revision for NAC 445.207)

NAC 445A.314 Administration of controls: Delegation of authority to city or county.
1. If the director delegates authority to a county but not to a city within it, the county has authority throughout the entire area within its boundaries unless otherwise specified in its letter of request.
2. If the director delegates authority to the city but not to the county in which the city is located, the division shall assume administration of the program throughout the county exclusive of the city or portion of the city for which the delegation is made by the director.
[Environmental Comm'n, Diffuse Source Control Reg. §§ 2.3.3 & 2.3.4, eff. 10-16-80]—(Substituted in revision for NAC 445.208)

NAC 445A.315 Administration of controls by municipality: Written request to director.
1. A municipality seeking to administer the department's controls of diffuse sources must submit a written request, specifying the personnel, their qualifications and the estimated annual budget to be committed to the program by the municipality. The request must be addressed to the director by registered or certified mail.
2. The director shall inform the municipality of his decision within 30 days after the receipt of the letter by the department.
[Environmental Comm'n, Diffuse Source Control Reg. §§ 2.3.1 & 2.3.2, eff. 10-16-80]—(Substituted in revision for NAC 445.209)

NAC 445A.316 Administration of controls by municipality: Jurisdiction. The municipality may apply specific measures of control only for those surface waters within its jurisdiction in which pollution from a diffuse source has been determined to contribute to a violation of standards for water quality.
[Environmental Comm'n, Diffuse Source Control Reg. § 3.1.6, eff. 10-16-80]—(Substituted in revision for NAC 445.210)

NAC 445A.317 Administration of controls by municipality: Determination of water pollution.
1. If a municipality has been delegated authority to administer controls of diffuse sources, it must establish a program to administer the controls. The municipality may proceed with the administration only if its governing body or the division first determines that there exists within or originates from the territory of the municipality water pollution from one or more diffuse sources and the pollution contributes to a violation of standards for water quality.
2. Such a determination must be based on the results of surveying, sampling or testing the affected surface waters or pursuant to a written complaint by any person filed with the municipality and proof of damage to him caused by pollution of those waters from a diffuse source. Any similar complaint filed with the division or other state agency must be immediately referred to the appropriate municipality for prompt investigation and disposition.
3. The municipality must determine the person who is responsible for each diffuse source of water pollution. The determination must be made by a resolution of the governing body. If necessary, further surveying, sampling and testing of the affected water and watershed may be made before the determination.

4. To the extent feasible, the division shall, upon written request, furnish a municipality with technical assistance in determining the existence of such water pollution.

5. If the division makes such a determination, it shall send a written notice of the determination, by registered or certified mail, to the governing body of the municipality.

6. If the governing body is aggrieved by the determination of the division, the governing body may appeal to the commission for a hearing on the matter. Such an appeal must be in writing and filed with the commission no later than 45 days after the date on which the governing body receives the notice.

7. The commission will conduct the hearing and decide the appeal or appoint a panel to do so.

8. The decision of the commission or panel constitutes a final administrative decision.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.1.1-3.1.4 & 3.1.7, eff. 10-16-80]—(Substituted in revision for NAC 445.211)

NAC 445A.318 Administration of controls by municipality: Time to begin after determination is made.

1. A municipality must proceed to administer its program within 60 days after the date of its own determination or its receipt of notice of the division's determination.

2. If an appeal to the commission has been filed, administrative action by the municipality is stayed until 60 days after the date of the decision by the commission or panel.

3. If a judicial review is being conducted, administrative action by the municipality is stayed until a decision is rendered by the court.

[Environmental Comm'n, Diffuse Source Control Reg. § 3.1.5, eff. 10-16-80]—(Substituted in revision for NAC 445.212)

NAC 445A.319 Administration of controls by municipality: Inspection of equipment; access to waters; notice.

1. Whenever it is necessary to enforce the provisions of NAC 445A.305 to 445A.340, inclusive, a representative of a municipality may, upon presenting proper credentials:

(a) Enter any premises;

(b) Inspect any monitoring equipment or method; and

(c) Have access to, survey, sample and test any surface waters, within its jurisdiction for the purpose of determining the commencement, existence or degree of pollution from a diffuse source.

2. Before such an entry, at least 15 days' notice must be given to the person owning or controlling the premises. The notice must be given by personal service or sent by registered or certified mail. A mailed notice is given upon the date of mailing.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 6.1.1 & 6.1.2, eff. 10-16-80]—(Substituted in revision for NAC 445.213)

NAC 445A.320 Administration of controls by municipality: Notice of violation; meeting with person responsible.

1. A municipality administering controls of diffuse sources must give to any person responsible for a diffuse source which is contributing to a violation of standards for water quality a written notice specifying the nature and location of the source or activity contributing to the violation. The notice must be given by personal service or sent by registered or certified mail.

2. Within 30 days after receipt of a notice, the person responsible shall meet with a representative of the municipality to discuss his solution, which must be presented in the form of a plan of the best practices for control of water pollution from a diffuse source.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.3.1 & 3.3.2, eff. 10-16-80]—(Substituted in revision for NAC 445.214)

NAC 445A.321 Administration of controls by municipality: Voluntary compliance.

1. The municipality may provide the person responsible, upon request, with such technical assistance and information as he needs to prepare the plan of best practices for his activity or use.

2. A plan of best practices prepared under NAC 445A.305 to 445A.340, inclusive, must:

(a) Be in writing;

(b) Be formulated with consideration given to the cost effectiveness and economic effect of the proposed practices;

(c) Contain a reasonable schedule for its fulfillment;

(d) Be presented to the municipality within 6 months after the date of the meeting referred to in subsection 2 of NAC 445A.320;

(e) Be approved in writing by the municipality; and

(f) Be reasonably designed to prevent, eliminate or reduce the water pollution from the diffuse source.

3. If chosen by the person responsible, a locally approved conservation plan or other measure complying with the substantive requirements of this section may serve as the plan of best practices required by subsection 2.

4. The municipality must consult with the appropriate conservation district, if any, in reviewing and enforcing a plan of best practices prepared to control an agricultural diffuse source which contributes to a violation of standards for water quality adopted pursuant to NRS 445A.520.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.4.1-3.4.4, eff. 10-16-80]—(Substituted in revision for NAC 445.215)

NAC 445A.322 Administration of controls by municipality: Involuntary compliance.

1. If a person notified pursuant to subsection 1 of NAC 445A.320, fails or refuses to:

(a) Meet with a representative of the municipality;

(b) Present to the municipality a required plan of best practices within the specified time; or

(c) Present to the municipality a plan of best practices which the municipality reasonably can approve,

the municipality must select appropriate practices and the person responsible must carry out those practices. The municipality must notify the person in writing of the best practices selected and the date by which they must be commenced. The notice must be given by personal service or sent by registered or certified mail.

2. The person responsible must commence those practices by the date specified in the notice.

3. In the selection of the best practices to be included in a plan, the economic feasibility of the practices must be considered.

4. Except for practices selected by the person responsible for a diffuse source, the best practices contained in a plan of best practices or selected by the municipality must be taken from the state handbook of best management practices or a local handbook of best practices provided by the municipality. A practice proposed by the person responsible is acceptable if the municipality determines it to be reasonably capable of preventing, eliminating or reducing water pollution from the diffuse source.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.5.1-3.5.4, eff. 10-16-80]—(Substituted in revision for NAC 445.216)

NAC 445A.323 Administration of controls by municipality: Appeal by person charged with violation.

1. If any person who is alleged to be responsible for a diffuse source contributing to a violation of standards for water quality is aggrieved by:

(a) The determination of the existence of or responsibility for the diffuse source;

(b) The refusal of the municipality to approve his plan of best practices; or

(c) The selection by the municipality of such practices or the time by which he shall commence them,

he may appeal to the governing body of the municipality for a hearing. The appeal must be in writing no later than 30 days after the date of his receipt of a notice of responsibility under subsection 1 of NAC 445A.320 if his appeal concerns the existence of or responsibility for the diffuse source, the notice of selection of best practices under subsection 1 or the refusal of his plan or selection of a plan by the municipality.

2. If the person is aggrieved by the determination of the governing body, he may appeal to the commission for a hearing on the determination. The appeal must be in writing no later than 30 days after the date on which the person received notice of the determination by the governing body. The hearing on appeal will be conducted and the matter decided by the commission or a panel of the commission and the decision constitutes a final administrative decision for the purpose of judicial review.

3. If such an appeal is made to the commission, any requirement by the municipality for action to which the person appealing is otherwise subject is automatically stayed until the decision of the commission or its panel. If such an appeal is made to the district court, any requirement by the municipality for action by the person is automatically stayed until the decision of the court.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.6.1-3.6.3, eff. 10-16-80]—(Substituted in revision for NAC 445.217)

NAC 445A.324 Administration of controls by municipality: Refusal to follow approved plan; order to comply.

1. If a person who is determined to be responsible for a diffuse source contributing to a violation of standards for water quality fails or refuses properly to carry out a plan of best practices approved or selected by the municipality pursuant to the requirements of NAC 445A.070 to 445A.340, inclusive, the municipality must issue an order for compliance. The order must specify the particular failure or refusal and prescribe the corrective action to be taken and a reasonable time for completing that action.

2. The order must be served upon the person responsible by personal service or sent to him by registered or certified mail.

3. A failure of the person to comply with the order authorizes the municipality to seek injunctive relief to enforce compliance.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.7.1 & 3.7.2, eff. 10-16-80]—(Substituted in revision for NAC 445.218)

NAC 445A.325 Determination by division of new sources of water pollution.

1. The division may, in cooperation with the appropriate municipality, survey, sample and test any surface water of the state already subject to a municipal program to determine the existence of any new or additional diffuse source of water pollution.

2. The division shall immediately report any such pollution to the municipality.

[Environmental Comm'n, Diffuse Source Control Reg. § 3.1.8, eff. 10-16-80]—(Substituted in revision for NAC 445.219)

NAC 445A.326 New diffuse sources: Applicability of this section and NAC 445A.327 and 445A.328. This section and NAC 445A.327 and 445A.328 apply to every municipality within the state, whether or not it has put into effect a program for control of diffuse sources.

[Environmental Comm'n, Diffuse Source Control Reg. § 3.2.7, eff. 10-16-80]—(Substituted in revision for NAC 445.220)

NAC 445A.327 New diffuse sources: Notice to municipality required.

1. After October 16, 1980, and except as provided in subsection 3, a person shall not commence any new land-disturbing activity or additional use of land which is likely to cause pollution from a diffuse source without first filing notice with the municipality in whose jurisdiction the activity or use is to occur.

2. The notice must be filed at least 30 days before the date of commencement of the activity or use and must specify the date of commencement, location, dimensions, nature and purpose of the activity or use.

3. The notice is not required of:

(a) Any farmer unless the proposed activity or use is likely to cause a violation of a standard for water quality adopted pursuant to NRS 445A.520;

(b) Any person whose activity or use is covered by a locally approved conservation plan or resource management plan; or

(c) Any person who is engaged in building, grading or forest activities and whose permit requires the use of the best practices for the control of water pollution resulting from diffuse sources.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.2.1-3.2.3, eff. 10-16-80]—(Substituted in revision for NAC 445.221)

NAC 445A.328 New diffuse sources: Review of notice by municipality; recommendations.

1. The municipality must review the notice within 30 days after its filing and advise the person filing it whether or not the use or activity is likely to cause water pollution from a diffuse source.

2. If pollution from a diffuse source is determined likely and the municipality has commenced administration of its program of controls, it must:

(a) Give the person a written recommendation of the best practices for him to apply to the use or activity in order to prevent, eliminate or reduce the anticipated pollution; or

(b) Request the person to submit to the municipality a written plan of the best practices to accomplish that purpose.

3. If the municipality has not commenced administration of a program of controls, it must select for the person or he must select from the state handbook of best management practices one or more appropriate practices to be applied to the activity or use.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 3.2.4-3.2.6, eff. 10-16-80]—(Substituted in revision for NAC 445.222)

NAC 445A.329 Technical assistance. If a municipality has insufficient resources to administer a program for control of diffuse sources, it may request and to the extent feasible may be provided technical assistance from the division. A municipality may also request technical advice, assistance and services of a conservation district or any other governmental entity within the state.

[Environmental Comm'n, Diffuse Source Control Reg. § 4.1.1, eff. 10-16-80]—(Substituted in revision for NAC 445.223)

NAC 445A.330 Effect of provisions on division, municipality. NAC 445A.305 to 445A.340, inclusive, does not:

1. Require the division to finance or construct any facility or structure needed to carry out a plan of best practices;

2. Affect the responsibility of a municipality to develop and enforce such best practices; or

3. Prevent the municipality from requesting that the responsibility for administering the program be returned to it if the director determines that the municipality has the necessary money and staff to administer the program effectively.

[Environmental Comm'n, Diffuse Source Control Reg. § 4.1.5, eff. 10-16-80]—(Substituted in revision for NAC 445.224)

NAC 445A.331 Partial delegation of program to municipality.

1. A municipality may request that the department delegate authority to it to administer a portion of the program.

2. Upon approval of a request for a partial delegation, the division shall administer its portion of the program in the same manner as would a municipality under the procedure set forth in NAC 445A.316 to 445A.328, inclusive.

3. The division shall regularly consult with the municipality during the course of the division's administration of the program.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 4.1.2-4.1.4, eff. 10-16-80]—(Substituted in revision for NAC 445.225)

NAC 445A.332 Evaluation of program: Notification to municipality.

1. The division shall periodically evaluate the effectiveness and efficiency of the administration of the program by a municipality.

2. If the division determines that a municipality is unable or unwilling to administer all or any portion of the program or is administering the program in an insufficient or improper manner in relation to its available resources, the division shall immediately notify the governing body by registered or certified mail of the determination, the facts upon which it is based and the means by and a reasonable period within which the problem must be remedied.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 4.2.1 & 4.2.2, eff. 10-16-80]—(Substituted in revision for NAC 445.226)

NAC 445A.333 Evaluation of program: Remedy of problem; hearing; notice of hearing.

1. The municipality must, within the period set by the division, remedy any problem described in subsection 2 of NAC 445A.332, by the means set forth by the division.

2. If the remedy is not effected within the period set, the division shall conduct at least one public hearing within the jurisdiction of the municipality to determine whether the division should assume administration of all or any portion of the program.

3. The division shall give 30 days' notice of the hearing by publishing a notice of it once in a newspaper circulated in the municipality.

4. The division shall also give the governing body 30 days' notice of the hearing by registered or certified mail. The mailed notice is given upon the date of mailing. The notice must specify the date, place and time of the hearing as well as the subject matter to be considered.

5. After the public hearing, if the division determines that it is necessary for it to administer all or a portion of the program, it shall commence to do so as soon as is reasonably practicable.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 4.2.3-4.2.7, eff. 10-16-80]—(Substituted in revision for NAC 445.227)

NAC 445A.334 Evaluation of program: Appeal.

1. If the municipality is aggrieved by the determination of the division, it may appeal to the commission for a hearing on the matter. Such an appeal must be submitted in writing to the commission no later than 30 days after the date of receipt by the governing body of written notice of the division's determination.

2. The hearing on appeal will be conducted and the matter decided by the commission or the panel. The decision is a final administrative decision for purposes of judicial review.

3. During such an appeal, the administration of all or any portion of the program by the division is automatically stayed until 30 days after the date of decision of the commission or panel. If there is a judicial review of that decision, the division's administration is automatically stayed until the court renders its decision.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 4.2.8-4.2.10, eff. 10-16-80]—(Substituted in revision for NAC 445.228)

NAC 445A.335 Resumption of administration by division; return of administration to municipality.

1. If the division resumes the administration of all or any portion of the program as a result of such a proceeding, the municipality must make available all of its records pertaining to its

previous administration of the program or the pertinent portion thereof. During the course of the division's administration, after such a resumption, it shall regularly consult with the municipality.

2. At any time after such a resumption, the division may return all administration to the municipality upon its written assurance that if the administration is returned, it will be adequate and proper. The assurance must be accompanied by a detailed plan for effective administration of all or the pertinent portion of the program.

3. If the division finds that the assurance and plan are adequate, it shall promptly return administration of the program or the pertinent portion thereof, with the related records to the municipality.

4. If the division finds that the assurance or plan is inadequate, it shall so advise the municipality in writing, whereupon the municipality may appeal to the commission in the manner prescribed in NAC 445A.323.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 4.2.11-4.2.14, eff. 10-16-80]—(Substituted in revision for NAC 445.229)

NAC 445A.336 State handbook of best management practices.

1. The state handbook of best management practices, prepared by the state conservation commission, must be presented to the commission for adoption and use in carrying out the provisions of NAC 445A.305 to 445A.340, inclusive. The commission may include, as a part of the handbook for the purposes of those sections additional appropriate practices for control of pollution from diffuse sources.

2. The division shall ensure that the handbook is reviewed every 2 years and revised as necessary. The division will consult with the state conservation commission in such review and revision.

3. The governing body of any municipality which administers controls of diffuse sources shall prepare and make available a local handbook of best practices for control of diffuse sources. The local handbook must be consistent with the state handbook of best management practices.

4. The local handbook must be designed to meet the particular conditions prevalent in the jurisdiction.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 5.1.1-5.1.4, eff. 10-16-80]—(Substituted in revision for NAC 445.230)

NAC 445A.337 Local handbooks of best management practices.

1. The governing body shall prepare its first local handbook within 6 months after its receipt of a copy of the state handbook from the commission.

2. Revisions to the local handbook, other than those proposed by the governing body, must be made as soon as is reasonably practicable, but not later than 6 months after each set of revisions to the state handbook is received from the commission.

3. The municipality must consult with conservation districts within its jurisdiction for assistance in preparing the portion of the local handbook concerning agricultural diffuse sources.

4. A municipality must use the state handbook until it has prepared its local handbook.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 5.1.5-5.1.8, eff. 10-16-80]—(Substituted in revision for NAC 445.231)

NAC 445A.338 Memoranda of understanding.

1. To ensure proper compliance with the provisions of NAC 445A.305 to 445A.340, inclusive, a municipality having delegated authority to control diffuse sources may execute memoranda of understanding with federal and state agencies operating within its jurisdiction.

2. A copy of each such memorandum must be sent to the director no later than 10 days after it is executed or adopted.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 6.2.1 & 6.2.2, eff. 10-16-80]—(Substituted in revision for NAC 445.232)

NAC 445A.339 Permit to construct or grade.

1. As a condition of the issuance and validity of any permit or other authorization for construction or grading, a county or city must require that practices be used to prevent, eliminate or reduce water pollution from any diffuse source during the activity.

2. Appropriate practices must be selected from the state or local handbook of best practices.

3. A person who has received a permit or other authorization pursuant to subsection 1 is exempt from compliance with NAC 445A.326, 445A.327 and 445A.328.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 7.1.1–7.1.3, eff. 10-16-80]—(Substituted in revision for NAC 445.233)

NAC 445A.340 Logging permits and certificates for timberland conversion.

1. All logging permits and timberland conversion certificates issued by the state forester firewarden, must, as a condition for issuance and validity thereof, require the use of practices to prevent, eliminate or reduce water pollution from diffuse sources.

2. These practices must be selected from the state handbook of best management practices.

3. Any person who has received a permit or certificate pursuant to subsection 1 is exempt from compliance with NAC 445A.326, 445A.327 and 445A.328, for purposes of the use or activity authorized by that permit or certificate.

[Environmental Comm'n, Diffuse Source Control Reg. §§ 7.2.1-7.2.3, eff. 10-16-80]—(Substituted in revision for NAC 445.234)

Subdivision of Land

NAC 445A.342 Fees for review of tentative and final maps.

1. A nonrefundable fee in an amount equal to $100 plus $1 for each lot included in the map must accompany each tentative map submitted to the division for review pursuant to NRS 278.335.

2. A nonrefundable fee of $50 must accompany each final map submitted to the division for approval in accordance with NRS 278.377.

3. The division shall not consider any such map which is submitted for review or approval without the applicable fee.

(Added to NAC by Environmental Comm'n, eff. 9-13-91)—(Substituted in revision for NAC 445.235)

Notification of Release of Pollutant

NAC 445A.345 Definitions. As used in NAC 445A.345 to 445A.348, inclusive, unless the context otherwise requires:

1. "Facility" means any:

(a) Building, structure, installation, equipment, pipe, including the pipe into a sanitary or storm sewer or publicly owned treatment works, pipeline, well, pit, pond, lagoon, impoundment, ditch, landfill, container for storage, tank or underground tank for storage;

(b) Site or area where a hazardous substance, pollutant or contaminant has been deposited, stored, disposed of, placed or otherwise located; or

(c) Motor vehicle, rolling stock or aircraft or any vessel used as a means of transportation on water.

2. "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping or disposing into the environment.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.238)

NAC 445A.346 Applicability. NAC 445A.345 to 445A.348, inclusive, do not apply to:

1. Any release resulting in exposure to an employee solely within an indoor place of employment for which the employee may assert a claim against his employer.

2. Emissions from the exhaust of the engine of a motor vehicle, the rolling stock of a railroad, an aircraft, a vessel or pipeline pumping station.

3. Release of source, by-product or special nuclear material resulting from the operation of a production or utilization facility as defined in the Atomic Energy Act of 1954, and which is subject to the regulatory authority of the Nuclear Regulatory Commission.

4. Any activity or substance which is subject to regulation pursuant to NRS 459.010 to 459.290, inclusive.

5. The normal application of fertilizers or pesticides.

6. Any release that complies with the limits or conditions of a permit issued by the state or the Federal Government.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.239)

NAC 445A.347 Notice required. (NRS 445A.425, 445A.660, 459.485)

1. Any person who owns or operates a facility or his designated agent shall notify the director as soon as possible after he has knowledge of a release described in subsection 2 that involves his facility, but not later than the end of the first working day after the release. The notice must be by telephone at (800) 992-0900, extension 4670 or (775) 687-4670.

2. The following are subject to the notice requirements of subsection 1:

(a) A release in a quantity equal to or greater than that which is required to be reported to the National Response Center pursuant to 40 C.F.R. Part 302.

(b) A release consisting of any quantity of pollutants, hazardous waste, as defined in NRS 459.430, or contaminants, as defined in NRS 445A.325, and the pollutant, hazardous waste or contaminant is not listed in 40 C.F.R. § 302.4.

(c) A release consisting of a petroleum product:

(1) Which is released to the soil or other surfaces of land in a quantity greater than 25 gallons; or

(2) Discovered on or in the ground water or in at least 3 cubic yards of soil during excavation of soil, subsurface exploration, monitoring of ground water or any other subsurface activity.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 12-8-89; 10-29-93; 9-15-94; R021-99, 9-27-99)

NAC 445A.348 Use of information in criminal prosecution. Any notice received pursuant to NAC 445A.347 or any information obtained from the investigation of the release reported in the notice shall not be used against the person giving the notice in any criminal prosecution, unless he is prosecuted for perjury, gross negligence or the giving of a false statement related to the reported release.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.241)

MINING FACILITIES

General Provisions

NAC 445A.350 Definitions. As used in NAC 445A.350 to 445A.447, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.351 to 445A.385, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.242)

NAC 445A.351 "Area of review" defined. "Area of review" means the area surrounding a facility which is to be evaluated.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24202)

NAC 445A.352 "As-built drawings" defined. "As-built drawings" means engineering drawings which reflect all changes made from original engineering drawings during the construction of a facility so that a representation of the facility as constructed is portrayed.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24204)

NAC 445A.353 "Beneficiation" defined. "Beneficiation" means the dressing or processing of ores for:

1. Regulating the size of a desired product;
2. Removing unwanted constituents; and
3. Improving the quality, purity or assay grade of a desired product.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24206)

NAC 445A.354 "Best engineering judgment" defined. "Best engineering judgment" means that decision by the department which, after evaluating the available alternatives and levels of technology presented by the applicant, results in an acceptable design for containing contaminants from a facility in order to protect the waters of the state.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24208)

NAC 445A.355 "Commission" defined. "Commission" means the state environmental commission.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2421)

NAC 445A.356 "Contaminant" defined. "Contaminant" has the meaning ascribed to it in NRS 445A.325.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24212)

NAC 445A.357 "Degrade" defined. "Degrade" means to alter the physical or chemical properties of or to cause a change in the concentration of any substance in the waters of the state in violation of the standards established pursuant to NAC 445A.424.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24214)

NAC 445A.358 "Department" defined. "Department" means the state department of conservation and natural resources.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24216)

NAC 445A.359 "Facility" defined. "Facility" means all portions of a mining operation, including, but not limited to, the mine, waste rock piles, or piles, beneficiation process components, processed ore disposal sites, and all associated buildings and structures. The term

does not include any process component or nonprocess component which is not used for mining or mineral production, and has not been used in the past for mining or mineral production as part of an operation which is active as of September 1, 1989.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24218)

NAC 445A.360 "Fluid management system" defined. "Fluid management system" means that portion of a facility which has been constructed to contain or transport process fluids.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2422)

NAC 445A.361 "Ground water" defined. "Ground water" means all subsurface water comprising the zone of saturation, including perched zones of saturation, which could produce usable water.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24222)

NAC 445A.362 "Liner" defined. "Liner" means a continuous layer of man-made or reconstructed natural materials, or a combination thereof which restricts the downward or lateral movement of liquids.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24224)

NAC 445A.363 "Meteoric waters" defined. "Meteoric waters" means any form of precipitation falling from the earth's atmosphere.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24226)

NAC 445A.364 "Mining" defined. "Mining" means the process of extracting ores from the earth.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24228)

NAC 445A.365 "Modify materially" defined. "Modify materially" means to make:

1. A change in the design or location of a process component, or the characteristics of the waste stream which significantly alters the potential to degrade the waters of the state; or
2. A significant change in the environmental monitoring systems which results in a reduction in the effectiveness of that monitoring system.

The term does not include changes necessitated during construction to suit field conditions, or changes which do not affect point sources.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2423)

NAC 445A.366 "Ore" defined. "Ore" means the naturally occurring material from which a metallic mineral of economic value can be extracted.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24232)

NAC 445A.367 "Permanent closure" defined. "Permanent closure" means that time in the operating life of a facility when activities for the final stabilization, removal or mitigation of sources are initiated.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24234)

NAC 445A.368 "Permit" defined. "Permit" means a written document issued pursuant to NRS 445A.300 to 445A.730, inclusive, which describes the responsibilities and obligations of the holder of the permit during the construction, operation, and temporary or permanent closure of a facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24236)

NAC 445A.369 "Person" defined. "Person" has the meaning ascribed to it in NRS 445A.390.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24238)

NAC 445A.370 "Pilot facility" and "testing facility" defined. "Pilot facility" or "testing facility" means a facility which is constructed principally to obtain data on the effectiveness of the beneficiation process to determine:

1. The feasibility of developing a body of ore; or
2. The optimum operating conditions of the process.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2424)

NAC 445A.371 "Placer mining" defined. "Placer mining" means the extraction and processing of ores solely by gravity separation methods.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24242)

NAC 445A.372 "Point source" defined. (NRS 445A.425)

1. "Point source" has the meaning ascribed to it in NRS 445A.395.
2. The term includes wheeled, track, stationary or floating equipment used for earth-moving activity from which pollutants are or may be discharged.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A by R096-01, 1-18-2002)

NAC 445A.373 "Pollutant" defined. "Pollutant" has the meaning ascribed to it in NRS 445A.400.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24246)

NAC 445A.374 "Pond" defined. "Pond" means a process component which stores, confines or otherwise significantly impedes the horizontal movement of process fluids. The term does not include tailings impoundments, vats, tanks or other nonearthen containers.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24248)

NAC 445A.375 "Process component" defined. "Process component" means a distinct portion of a constructed facility which is a point source.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2425)

NAC 445A.376 "Process fluid" defined. "Process fluid" means any liquids, including meteoric waters, which are intentionally or unintentionally introduced into any portion of the beneficiation process components.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24252)

NAC 445A.377 "Small-scale facility" defined. "Small-scale facility" means a facility which chemically processes less than 36,500 tons of ore per year and no more than 120,000 tons of ore for the life of the project at any one permitted site.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A 9-6-91)—(Substituted in revision for NAC 445.24254)

NAC 445A.378 "Source" defined. "Source" means any building, structure, facility or installation from which there is or may be the discharge of pollutants.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24256)

NAC 445A.379 "Stabilized" defined. "Stabilized" means the condition which results when contaminants in a material are bound or contained so as to prevent them from degrading the waters of the state under the environmental conditions that may reasonably be expected to exist at a site.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24258)

NAC 445A.380 "Storm event" defined. "Storm event" means a precipitation event with a specified frequency of return and specified period of duration as defined in *Precipitation-Frequency Atlas of the Western United States*, vol. VII-Nevada.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2426)

NAC 445A.381 "Tailings impoundment" defined. "Tailings impoundment" means a process component which is the final depository for processed ore discharged from a mill.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24262)

NAC 445A.382 "Temporary closure" defined. "Temporary closure" means the cessation of the operation of a process component for more than 30 days as a result of a planned or unplanned activity.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24264)

NAC 445A.383 "WAD cyanide" defined. "WAD cyanide" means the cyanide concentration as determined by Method C, Weak Acid Dissociable Cyanide, D2036-082, Part 31 of American Society of Testing Materials Book of Standards.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24266)

NAC 445A.384 "Waters of the state" defined. "Waters of the state" has the meaning ascribed to it in NRS 445A.415.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24268)

NAC 445A.385 "Zero discharge" defined. "Zero discharge" means the standard of performance for the protection of surface waters which requires the containment of all process fluids.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2427)

NAC 445A.386 Adoption of publication by reference. The department hereby adopts by reference *Precipitation-Frequency Atlas of the Western United States*, vol. VII-Nevada, stock

number 0317-00161, prepared by the National Weather Service and National Oceanic and Atmospheric Administration, United States Department of Commerce. The publication may be obtained from the Superintendent of Documents, United States Government Printing Office, at a cost of $8.45.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24272)

NAC 445A.387 Scope; effect of noncompliance.

1. NAC 445A.350 to 445A.447, inclusive, apply to facilities that have the potential to degrade the waters of the state. Surface disturbance activities such as stripping and the stockpiling of ore, when conducted in a manner which presents an insignificant potential to degrade waters of the state are not subject to those sections. NAC 445A.350 to 445A.447, inclusive, do not apply to facilities involved solely in the mining and processing of sand and gravel, cinders, diatomaceous earth, slate, shale, gypsum, clay or crushed stone.

2. NAC 445A.350 to 445A.447, inclusive, do not replace or in any way affect the responsibility of a person to comply with any other regulations and rules of practice and procedure administered by the department or any other governmental agency.

3. A permit issued pursuant to NAC 445A.350 to 445A.447, inclusive, may be revoked for noncompliance with the provisions of NAC 445A.350 to 445A.447, inclusive, in accordance with the procedures established in NRS 445A.600.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24274)

NAC 445A.388 Appeal of action taken by department. Any person aggrieved by an action taken by the department pursuant to NAC 445A.350 to 445A.447, inclusive, may appeal to the commission in accordance with NRS 445A.605.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24276)

Permits for Facilities

NAC 445A.390 Permit required; operation under existing permit.

1. All facilities in existence on September 1, 1989, must obtain a valid permit within 3 years after September 1, 1989.

2. After July 1, 1990, no person may begin construction of a new process component, or materially modify an existing process component, without first obtaining a permit or permit modification, or the concurrence of the department that the construction or modification is in conformance with the existing permit.

3. The operator of a process component for which a permit has been obtained may continue to operate that process component under the conditions of the existing permit. This applies to all process components which have been reviewed and approved by the department but have not yet been issued a permit and are either in the process of being constructed or are operating in accordance with an approval granted as of September 1, 1989. Where detailed plans have not yet been submitted to the department for a process component that has been conceptually approved under either an existing permit or approved without an existing permit, the process component must meet the regulations in effect when construction of the new process component is initiated.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2428)

NAC 445A.391 Application for permit: Preliminary meeting with representative of department. Before submitting an application for a permit, a prospective applicant must meet with a representative of the department to discuss:

1. The proposed location of the facility;
2. The operating plans for the process components; and

3. The physical characteristics of the facility's proposed site as required on the application for the permit.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24282)

NAC 445A.392 Application for permit: Construction or modification of process component; abbreviated application.

1. Except as otherwise provided in subsection 2, a person wishing to construct or modify materially a process component at a facility must file an application for a permit pursuant to NAC 445A.394.

2. Persons wishing to construct a small-scale, pilot, testing, placer or other facility which relies solely on physical separation methods to process ore may file an abbreviated application for a permit pursuant to NAC 445A.410, 445A.412 and 445A.414. The application must be accompanied by the appropriate fee as required by NAC 445A.232.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24284)

NAC 445A.393 Application for permit: Definition of site conditions, process materials, characteristics of waste and impacts. The failure or the inability to define adequately site conditions, process materials and the probable characteristics of the waste in the application for a permit may result in the department requiring a higher standard of engineered containment or monitoring, or both. Persons wishing to materially modify a facility must submit all information necessary to define and describe the probable impacts of the modification or new process components on the area of review.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24286)

NAC 445A.394 Application for permit: Submission; contents.

1. To obtain a permit to construct, operate and close permanently a facility, the owner or operator of the proposed facility or his designated agent must submit to the department a written application signed by the owner or, if the owner does not operate the facility, the operator of the facility or his designated agent. The application must be accompanied by the appropriate fee established pursuant to NAC 445A.232.

2. An application for a permit must contain:

(a) The name, location and mailing address of the:

(1) Facility.

(2) Owner.

(3) Operator.

(4) Authorized agent.

(b) The legal structure of the applicant, including, but not limited to, whether the applicant is a sole proprietorship, partnership or corporation.

(c) The name of the owner of the land or mining claim or claims on which the facility will be located.

(d) Documentation that notice of the proposed development has been provided to the local board of county commissioners.

(e) The rate at which the facility is anticipated to be chemically processing ore in tons of ore per year.

(f) An assessment of the area of review as required by NAC 445A.395.

(g) A meteorological report as required by NAC 445A.396.

(h) An engineering design report as required by NAC 445A.397.

(i) A copy of the draft operating plans for the facility as required by NAC 445A.398.

(j) A report of the sample analysis as required by NAC 445A.396.

3. New applications or requests for major modifications to existing permits must be submitted to the department at least 165 days before the date on which the applicant wishes to initiate construction.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24288)

NAC 445A.395 Contents of application: Assessment of area of review.

1. An assessment of the area of review must include:

(a) Hydrogeological and lithological information which defines the subsurface conditions of the site beneath and adjacent to all point sources to a minimum depth of 100 feet.

(b) A geological map covering the area within a 1-mile radius of the process components.

(c) A topographic map which identifies:

(1) All known surface waterways, streams, springs and seeps within a 1-mile radius of the facility;

(2) All existing habitable buildings within a 1-mile radius of the facility;

(3) The boundaries and area of the upgradient watershed and the degree to which the 100-year, 24-hour storm event will affect the process components; and

(4) All wells constructed for supplies of drinking water within 5 miles downgradient of the site identified in the records of the division of water resources of the department or known to the applicant.

2. The department may require that a greater or lesser area of review be prescribed in an application for a permit based upon:

(a) The ability of the geologic formation at the site of the facility to inhibit contaminant migration;

(b) The size of the human population in the area;

(c) The depth from the surface to all ground water;

(d) The distance to all surrounding bodies of surface water; and

(e) The quality, uses and potential uses of the ground and surface water within the area of review.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2429)

NAC 445A.396 Contents of application: Meteorological report; analysis of samples. An application for a permit must include:

1. A summary of the historical monthly averages of rainfall obtained from the nearest recording station to the site adjusted for conditions at the site;

2. The 24-hour storm events with an interval of recurrence of 10 years, 25 years, and 100 years;

3. The diurnal temperature variation from the nearest recording station to the site adjusted for conditions at the site; and

4. Results from testing samples from the facility's mine site which are representative of the overburden, waste rock and ore at the proposed mine site that have:

(a) Characterized the samples by a multi-element spectrographic assay or an equivalent analytical procedure; and

(b) Evaluated the samples for their potential to release pollutants.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24292)

NAC 445A.397 Contents of application: Engineering design report; specifications for fluid management system.

1. An engineering design report must be prepared and submitted to the department by a professional engineer registered in Nevada. The report must include the following information, if applicable:

(a) Engineering plans for the process components used for beneficiation;

(b) The general specifications and calculations for the process components;

(c) Topographic maps showing the location of all potential sources at the facility including, but not limited to:

(1) The extraction sites;

(2) The process components used for beneficiation;

(3) The disposal sites for waste rock; and

(4) The disposal sites for spent ore;

(d) Drawings which indicate the layout of the structures and devices for controlling process fluids;

(e) Methods for the control of storm flow runoff;

(f) The existing geological and hydrogeological conditions beneath and adjacent to the site of the fluid management system and waste rock disposal sites and the degree to which these conditions provide natural containment, preferential flow pathways and structural stability;

(g) A description of the liner material and installation procedures for all leach pads, ponds and ditches, including a description of the subbase preparation;

(h) Details of leak detection and site-monitoring systems; and

(i) Process schematics of the facility.

2. Specifications for constructing the fluid management system and for the material to be used must be submitted to the department with the application for a permit, and must include, but not be limited to, the methods to be utilized for inspecting, testing, and quality assurance and control.

3. The information required by subsections 1 and 2 must be of sufficient detail to allow the department to make the following factual determinations:

(a) Which of the potential sources at the facility are to be considered process components for the purposes of NAC 445A.350 to 445A.447, inclusive;

(b) That the design of the process components is sufficient to protect the waters of the state from degradation; and

(c) That the monitoring system is adequate to determine if the process components are operating so as to protect the waters of the state from degradation.

Any material modification to a process component requires the approval of the department before construction begins.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24294)

NAC 445A.398 Contents of application: Proposed operating plans. The proposed operating plans for a facility must include:

1. A description of the mineral processing circuit which includes a flow chart of the facility and the range of operating conditions for which the process components were designed.

2. A plan for the management of process fluids which describes the methods to be used for the monitoring and controlling of all process fluids. The plan must provide a description of the means to evaluate the conditions in the fluid management system so as to be able to quantify the available storage capacity for meteoric waters and to define when and to what extent the designed containment capacity has been exceeded.

3. A plan for monitoring the facility which describes:

(a) The water quality in the area;

(b) The monitoring locations the applicant proposes to sample routinely in order to evaluate surface and ground water at the site that may be affected by the operation of the facility;

(c) An analytical profile of each surface and ground water that may be affected by the operation of the facility; and

(d) The locations of the leak detection systems, the frequency for sampling these systems and the analytical profile to be used for evaluation of the samples.

4. A plan for responding to emergencies which:

(a) Describes what actions must be initiated and by whom as a result of various possible failures in the fluid management system which would result in releases of pollutants; and

(b) Is designed to minimize the environmental impact resulting from the release of process fluids.

5. A temporary closure plan resulting from conditions described in subsection 1 of NAC 445A.444 which describes the activities which must be maintained during the time of closure.

6. A tentative plan for the permanent closure of the facility which describes the procedures, methods and schedule for stabilizing spent process materials. The plan must include:

(a) Procedures for characterizing spent process materials as they are generated; and

(b) The procedures to stabilize all process components with an emphasis on stabilizing spent process materials and the estimated cost for the procedures.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24296)

NAC 445A.399 Preparation of plan for seasonal closure of process components. If the facility is located in an area where the mean diurnal temperature does not exceed 0 degrees Centigrade for 30 days or more a plan for the seasonal closure of the process components must be prepared. The plan must describe:

1. The impact this change in the weather will have on the process components, including, but not limited to, a discussion of the possible closure of individual process components;

2. Those activities which must be undertaken to prepare those process components which may be potentially affected by the low temperatures;

3. The activities which will be maintained during this time of closure; and

4. The conditions that would allow operations to resume.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24298)

NAC 445A.400 Initial review of application and notification of applicant; failure to provide information; submission of incorrect information.

1. The department shall, within 30 days after receiving an application for a permit, notify the applicant in writing:

(a) That the application is procedurally complete or specify any deficiencies; and

(b) Which nonfluid management system sources will not initially be considered as process components for the purposes of NAC 445A.350 to 445A.447, inclusive.

This review is solely to determine if all the information required by NAC 445A.394 to 445A.398, inclusive, has been submitted and is not a determination as to the adequacy of the information.

2. Failure to provide all information required for a determination of completeness within 1 year after the application date renders an application void and requires the submittal of a new application and fee. A new application and fee will not be required if the department fails to act in a timely manner or if the applicant can demonstrate that circumstances beyond his control prevented him from developing the additional information.

3. If an applicant becomes aware that he failed to submit any relevant information or submitted incorrect information in an application, he must promptly submit such information to the department.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.243)

NAC 445A.401 Action by department upon application.

1. After determining that an application is procedurally complete, the department shall, within 90 days, determine whether the application is technically complete, and prepare and issue:

(a) A draft permit or a notice of intent to deny the application;

(b) A fact sheet which:

(1) Identifies the location of the facility;

(2) Describes the proposed sources;

(3) Provides a description of the facility and monitoring systems;

(4) Identifies the probable receiving water; and
(5) Describes the procedures for public comment; and
(c) A public notice for each draft permit or intent to deny an application for a permit to construct, operate and close a mining and beneficiation facility.
2. The 90-day time for action by the department may be extended by the amount of time necessary for the applicant to submit additional information necessary to make the application technically complete.
(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24302)

NAC 445A.402 Notice of intent to issue permit or deny application.
1. The department shall, at least 30 days before the issuance of a permit or denial of an application:
(a) Circulate a public notice in a manner intended to inform interested and potentially interested persons.
(b) Cause to be published in a newspaper of general circulation within the geographic area of a proposed facility, a notice of the intent to issue the permit or deny the application.
(c) Mail to the applicant and the landowner, if other than the applicant, members of the board of county commissioners of the county in which the facility is to be located, the division of minerals, the division of water resources of the department, and any other person or group who so requests, written notice of the intent to issue a permit or deny the application.
2. Notice given pursuant to subsection 1 must include:
(a) The name, address and telephone number of the department;
(b) The name and address of the applicant;
(c) The location of the proposed facility;
(d) The tentative decision of the department to issue a permit or deny the application;
(e) A description of the procedure for:
(1) Making a final decision, which must include 30 days for interested persons to submit to the department written comments on the tentative decision to issue a permit or deny the application; and
(2) Requesting a public hearing, if one has not been scheduled; and
(f) The specific location where interested persons may obtain further information or inspect and copy the draft permit, statement and fact sheet, and other relevant forms or documents.
(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24304)

NAC 445A.403 Request for hearing on application; submission of comments on draft permit. The applicant or any interested person may:
1. Request a public hearing on any application for a permit during the 30 days allowed for public comment if a hearing has not been scheduled. The request must be in writing and state the nature of the issues to be raised at the hearing.
2. Submit written comments on the draft permit to the department within 30 days after notice is given pursuant to NAC 445A.402.
(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24306)

NAC 445A.404 Scheduling of public hearing on application. The department:
1. Shall schedule a public hearing on an application for a permit if it determines that there is a significant degree of public interest in the matter; or
2. May schedule a public hearing on its own initiative.
(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24308)

NAC 445A.405 Notice of hearing: Publication; contents. The department shall cause to be published a notice for a hearing at least 30 days before the hearing in the manner prescribed by NAC 445A.402. In addition to the information required by NAC 445A.402, the notice must include:

1. The date on which the previous public notice was given concerning the permit pursuant to NAC 445A.402;
2. The date, time and place of the hearing; and
3. A brief description of the nature and purpose of the hearing and the applicable rules and procedures.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2431)

NAC 445A.406 Submission of testimony at hearing.

1. Any person may submit to the department at a public hearing held by the department on the application for a permit, an oral or written statement or other information which relates to the draft of the permit.
2. The department may:
(a) Set reasonable limits upon the time allowed for oral statements; and
(b) Require persons submitting oral statements to submit statements in writing.
3. The 30-day period for comment is automatically extended to the close of the hearing on that matter.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24312)

NAC 445A.407 Issuance of statement responding to comments on draft permit. If a final permit is issued, the department shall issue a statement responding to the comments received on the matter. A copy of the statement must be sent to the applicant and persons submitting comments, and will be made available for inspection by the public. This statement must:

1. Specify which provisions, if any, in the draft of the permit that have been changed in the final permit, and the reasons for the change;
2. Briefly describe and respond to all significant comments submitted during the time established for public comment on the draft of the permit; and
3. Provide that any person aggrieved by the department's decision may appeal the decision pursuant to NRS 445A.605.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24314)

NAC 445A.408 Action by director of department after period for public comment. Within 15 days after the end of the time for public comment regarding the issuance or renewal of a permit, the director of the department shall issue the final permit or provide written notice to the applicant why the final permit will not be issued at that time. This notice must set forth the time allowed for an aggrieved party to appeal the department's decision.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24316)

NAC 445A.409 Issuance and maintenance of permit; maximum term and renewal of permit.

1. If an application is approved, a single permit must be issued for the construction, operation and closure of the facility. A valid permit must be maintained until permanent closure is complete.

2. A permit may be issued for a maximum term of 5 years, at which time the holder of the permit may apply for renewal.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24318)

NAC 445A.410 Permit for small-scale facility: Contents of application; limitation on holding; applicability of minimum design criteria.

1. An application for a permit to construct, operate and close permanently a small-scale facility must contain:

(a) The information required by paragraphs (a) to (e), inclusive, of subsection 2 of NAC 445A.394;

(b) Site information consisting of:

(1) The distance from the surface to ground water;

(2) A topographic map which identifies all surface waters, waterways and springs within 1/2 mile of the site; and

(3) A description of the general character of the soil and geologic formations which lie beneath and adjacent to the proposed processing site;

(c) A description of and the criteria for the design of the containment system for the individual process components, including plans, schematics and cross-section diagrams of the process components which identify those components which provide for the containment of process fluids; and

(d) A copy of the draft operating plan for the facility which describes:

(1) The chemicals to be used in the beneficiation process;

(2) The methods which are proposed for controlling process fluids so that no discharges occur;

(3) The systems which are proposed for detecting leaks and monitoring the facility;

(4) The actions that will be taken if process fluids escape the fluid management system;

(5) The methods which are proposed to stabilize processed materials before they are disposed of or during the permanent closure of the facility; and

(6) The procedures which are to be instituted to ensure that the facility poses no threat to the environment when there is no activity at the facility or when there is a temporary closure.

2. A person may not concurrently hold more than one permit for a small-scale facility if the facilities are within 1 mile of each other.

3. The minimum design criteria in NAC 445A.433 to 445A.438, inclusive, apply to small-scale facilities.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2432)

NAC 445A.411 Pilot facility or testing facility: Conditions for issuance of permit. The department may issue a permit to construct, operate and close permanently a pilot facility or testing facility if:

1. The facility is to evaluate less than 10,000 tons of ore, except that a greater amount may be permitted if the applicant demonstrates that the greater amount is necessary for a specific purpose in the testing program; and

2. The applicant has clearly shown that the facility will not degrade the waters of the state.

A permit to operate a pilot facility or testing facility may not exceed 1 year for a single test or 2 years for a facility that has several tests to conduct.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24322)

NAC 445A.412 Pilot facility or testing facility: Contents of application for permit. An application for a permit to construct, operate and close permanently a pilot facility or testing facility must include:

1. The information required in paragraphs (a) to (d), inclusive, of subsection 2 of NAC 445A.394;
2. The quantity of the material to be evaluated;
3. The time required to complete all testing;
4. The type and quantity of chemicals to be utilized in the testing process;
5. A copy of the plans for the system and individual process components;
6. A description of the monitoring systems which are to be used to satisfy the requirements of NAC 445A.424;
7. A description of the procedures to be used to stabilize and dispose of the spent ore;
8. A topographic map of the area for the test site;
9. A description of hydrogeologic conditions at the site; and
10. A draft plan for the permanent closure of the facility, including a plan to stabilize areas disturbed by the operations of the facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24324)

NAC 445A.413 Pilot facility or testing facility: Construction of application indicating need to conduct testing beyond 2 years. An application for a permit to operate a pilot facility or testing facility which indicates a need to conduct testing beyond 2 years will be construed to be a request to operate a facility subject to the filing requirements of NAC 445A.394 to 445A.398, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24326)

NAC 445A.414 Permit for facility using physical separation methods.

1. An applicant for a permit to construct, operate and close permanently a facility which utilizes physical separation methods of concentrating ore such as placer mining and flotation methods and which uses only coagulants, flocculants and reagents submitted to and approved by the department, must submit to the department:

(a) The information required by paragraphs (a) to (e), inclusive, of subsection 2 of NAC 445A.394;

(b) An abbreviated area of review which covers only the site and the adjacent area, including an identification of all surface water within 1/2 mile of the site and the depth and quality of all ground water beneath the site;

(c) A draft operating plan which describes the circuit for concentrating the ores and identifies all process components;

(d) A multi-element spectrographic assay or other approved method of analysis which characterizes the ore body;

(e) The results of an analysis of the process make up water and process water for the inorganic constituents listed in NAC 445A.453 and 445A.455 to determine which and to what extent the process water burden of these elements is increased; and

(f) A certification that the applicant will not utilize any chemicals in the process except those submitted to and approved by the department.

2. The use of a chemical not approved by the department removes the facility from this category of operation and requires the holder of the permit to meet the requirements established in NAC 445A.394 to 445A.398, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24328)

NAC 445A.415 Granting of permit which allows lower level of engineered containment than required by minimum design criteria. After receiving a petition from an applicant, the department may grant a permit which allows a lower level of engineered containment than is required in NAC 445A.434 to 445A.438, inclusive, if the applicant clearly demonstrates:

1. That the ground water at the facility is exempted from the standards established in paragraphs (b) and (c) of subsection 1 of NAC 445A.424;

2. The following:

(a) The depth from the surface to ground water is greater than 200 feet and the upper portion of the existing geologic formation has a coefficient of permeability which is not more than that exhibited by 50 feet of material with a coefficient of permeability of 1x10-6 cm/sec;

(b) No open fractured or faulted geologic conditions exist from the surface to the ground water; and

(c) All exploratory and condemnation borings beneath the site have been adequately sealed; or

3. That the conditions which exist at the site may allow a lower level of designed containment and still ensure that the waters of the state will not be degraded by providing, in addition to the information required by NAC 445A.394 to 445A.398, inclusive:

(a) An assessment of the combined effect of all relevant characteristics, including:

(1) The depth to all ground water and the distance to all surface water;

(2) The hydrogeology and stratigraphy of the site; and

(3) The quality, characteristics, and existing and potential beneficial uses of any ground and surface water which may be potentially affected by the proposed facility.

(b) An engineering assessment of the combined effect of such relevant factors as:

(1) The proposed design of each process component, including the type and thickness of the liner or base;

(2) Other construction specifications;

(3) The type of materials to be used and the methods for placement of those materials;

(4) All structures, devices and techniques for controlling drainage and minimizing solution loss;

(5) The method to be used for controlling the internal hydraulic head;

(6) The system to detect and monitor leaks; and

(7) The types of quality assurance and quality control procedures to be used.

(c) An assessment of the potential for the facility to degrade the waters of the state, including an analysis of the potential for process fluids from each component to reach waters of the state, and the potential impact of such fluids on these waters.

The department may require the applicant to bear the cost of a third-party review of the application to determine whether it meets the requirements of this subsection. The department shall develop and maintain a list of qualified reviewers from which the applicant can select. The department must concur with the selection and all direction to the third party must be given by the department. The time allotted to the department to determine the completeness of an application pursuant to NAC 445A.401 may be extended by the amount of time necessary to complete the third-party review.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2433)

NAC 445A.4155 Conditions pursuant to which modification to design of facility with existing permit does not require new public notice; extension of term of existing permit disallowed. (NRS 445A.425)

1. A modification to the design of a facility for which a permit has been granted by the department does not require a new public notice if:

(a) The modification requires review by the department pursuant to NAC 445A.350 to 445A.447, inclusive; and

(b) The commission determines that the modification is not a modification of such significance as to constitute a "minor modification" or a "major modification," as those terms are described in NAC 445A.416 and 445A.417, respectively.

2. Such a modification may not extend the term of the permit.

(Added to NAC by Environmental Comm'n, eff. 10-29-97)

NAC 445A.416 Minor modification of existing permit; modification of operating plans.

1. A minor modification to an existing permit does not require a new public notice.
2. A minor modification to an existing permit may not extend the term of the permit.
3. A modification to the operating plans does not require a modification to the permit if the change will not result in an increased potential for the facility to degrade waters of the state.
4. For the purposes of this section, "minor modifications" include, but are not limited to:

(a) The phased expansion of the milling and tailings impoundment or the leach pads using the same or equivalent technologies that presently exist at a site which was adequately characterized in the original application but for which detailed design plans were not submitted in the original application.

(b) A significant modification to a monitoring system which does not result in a lessening of the effectiveness of that system.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24332)

NAC 445A.417 Major modification of existing permit.

1. A major modification to an existing permit requires a public notice.
2. A major modification to an existing permit may extend the term of the permit for not more than 5 years.
3. For the purposes of this section, "major modifications" include:

(a) The addition of a new beneficiation process which includes, but is not limited to, heap leaching and process components for milling, which was not identified in the original application.

(b) A significant change in the location of a proposed process component or site condition which was not adequately described in the original application.

(c) A change in the proposed beneficiation process that significantly alters the characteristics of the waste stream which significantly increases the potential to degrade the waters of the state.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24334)

NAC 445A.418 Fee for modification of permit. (NRS 445A.425, 445A.430)

1. The fee for a minor modification to a permit is one-half the amount of the renewal fee for a permit, up to a maximum fee of $5,000.
2. The fee for a major modification to a permit is equal to the amount of the renewal fee for a permit.
3. The fee for the type of a modification described in NAC 445A.4155 is $500.

(Added to NAC by Environmental Comm'n, eff. 9-1-89; A 10-29-97)

NAC 445A.419 Transfer of permit to new owner or operator.

1. A permit may be transferred to a new owner or operator.
2. Before the ownership or operation of a facility may be transferred during the term of a permit, the holder of the permit must inform the new owner or operator in writing of the requirements of the current permit and the requirements of NAC 445A.350 to 445A.447, inclusive.
3. A copy of that written notice must be sent to the department.
4. The new owner or operator must state in writing to the department that he will comply with the existing operating plans or provide revised plans to the department for review and approval.
5. Until notice is given by the department that the permit has been transferred, the current operator or owner named on the permit is responsible for complying with NAC 445A.350 to 445A.447, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24338)

NAC 445A.420 Renewal of permit; operation of facility pending issuance of new permit.

1. A permit may be renewed by the department if the holder of the permit submits an application to renew the permit. The application must:

(a) Be filed at least 120 days before the expiration of the existing permit;

(b) Include the renewal fee required by NAC 445A.232; and

(c) Include any new information to update information previously submitted to the department.

2. A permit for a facility which is inactive because of an unplanned closure may be renewed once if the holder of the permit demonstrates that the conditions under which the permit was issued will continue and the design life of the process components will not be exceeded.

3. If the department has not issued a new permit as of the expiration of the existing permit, the holder of the permit may continue to operate the facility pursuant to the terms and conditions of the existing permit until a new permit is issued by the department.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2434)

Operation and Design of Facilities

NAC 445A.424 Limitations on degradation of water; exemptions.

1. A facility, regardless of size or type, may not degrade the waters of the state to the extent that:

(a) The quality of surface water is lowered below that allowed by NRS 445A.565.

(b) For ground water:

(1) The quality is lowered below a state or federal regulation prescribing standards for drinking water; or

(2) The concentration of WAD cyanide exceeds 0.2 mg/l.

The department may establish a numerical limit for any constituent not regulated by subparagraphs (1) and (2) which may reasonably be expected to be discharged by the facility in sufficient volume and concentration to cause an adverse impact on human health.

(c) The quality of those waters of the state which already exceed the criteria established by subsection 2 is lowered to a level that the department finds would render those waters unsuitable for the existing or potential municipal, industrial, domestic or agricultural use.

2. The department may exempt a body of ground water or portion thereof from the standards established in subsection 1 if the request for an exemption to the ground water standards and the supporting information is submitted as part of the application for the permit. The following criteria will be considered by the department in determining whether to exempt a potentially impacted body of ground water from the standards in subsection 1:

(a) The impacted ground water does not currently serve as a source of drinking water and because of the following reasons the ground water will not serve as a source of drinking water:

(1) The ground water produces a mineral, hydrocarbon or geothermal fluid which the applicant can demonstrate to the satisfaction of the department exists at a concentration that is expected to be capable of commercial production and that releases by the facility will not affect this production;

(2) The ground water is situated at a depth or location which makes recovery of water for drinking economically or technologically impractical; or

(3) It would be economically or technologically impractical to render the water fit for human consumption; or

(b) The total dissolved solids in the ground water is more than 10,000 milligrams per liter and the ground water is not reasonably expected to become a supply of drinking water.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24342)

NAC 445A.425 Process components in existence on September 1, 1989: Standards; additional monitoring.

1. A process component in existence on September 1, 1989, is not required to meet more stringent engineering containment standards during the design life of that component if the applicant can demonstrate that:

(a) The process component meets and will continue to meet its design criteria; and

(b) There have been no significant changes in the characteristics of the material to be contained by the process component which would increase the potential to degrade the waters of the state.

2. Upon issuing a permit for a process component in existence on September 1, 1989, the department may require additional monitoring of the site to verify that the conditions of this section are being met. A process component found to have had releases of process fluid as a result of this monitoring must comply with the requirements of NAC 445A.441.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24344)

NAC 445A.426 Notice of intent to commence active operation of process component. At least 30 days before the introduction of process solutions into a new process component or an existing process component which has been materially modified, the holder of the permit must notify the department of the intent to commence active operation of that process component.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24346)

NAC 445A.427 Duties of holder of permit upon construction or modification of process component. Within 30 days after completing construction on a new process component or materially modifying an existing process component, the holder of the permit shall submit to the department:

1. As-built drawings of the process component;

2. A summary of the quality control procedures which were carried out during construction; and

3. The final operating plans required by NAC 445A.398 which have been revised to reflect modifications made during construction.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24348)

NAC 445A.428 Level of containment required for placer mining or flotation facilities. For placer mining or flotation facilities, the level of containment required by the department for process fluids will depend upon the characteristics of the ore and process water.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2435)

NAC 445A.429 Procedures required to prevent release of contaminants; requirements concerning impoundments.

1. The holder of the permit must institute appropriate procedures to ensure that all mined areas do not release contaminants that have the potential to degrade the waters of the state.

2. Open pit mines must, to the extent practicable, be free-draining or left in a manner which minimizes the impoundment of surface drainage and the potential for contaminants to be transported and degrade the waters of the state.

3. Bodies of water which are a result of mine pits penetrating the water table must not create an impoundment which:

(a) Has the potential to degrade the ground waters of the state; or

(b) Has the potential to affect adversely the health of human, terrestrial or avian life.

4. The holder of a permit may apply to the commission to establish a beneficial use with a level of protection less than that required by paragraph (b) of subsection 3 for water impounded in a specific mine pit.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24352)

NAC 445A.430 Stabilization of spent ore.

1. Spent ore which has been left on pads or which will be removed from a pad must first be rinsed until:

(a) WAD cyanide levels in the effluent rinse water are less than 0.2 mg/l;

(b) The pH level of the effluent rinse water is between 6.0 and 9.0; and

(c) Contaminants in any effluent from the processed ore which would result from meteoric waters would not degrade waters of the state.

2. If the requirements established in subsection 1 cannot be achieved, the department will grant a variance to those conditions if the holder of the permit can demonstrate that:

(a) The remaining solid material, when representatively sampled, does not contain levels of contaminants that are likely to become mobile and degrade the waters of the state under the conditions that will exist at the site; or

(b) The spent ore is stabilized in such a fashion as to inhibit meteoric waters from migrating through the material and transporting contaminants that have the potential to degrade the waters of the state.

3. The department may approve an alternate method for stabilizing ore that has been leached if the holder of the permit can clearly demonstrate that the condition in which the materials will be left will not create a potential for the waters of the state to be degraded.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24354)

NAC 445A.431 Stabilization of tailings. Upon termination of the active use of a tailings impoundment, representative samples of the material deposited in the impoundment must be collected and characterized. The tailings must be stabilized during the final closure of a facility so as to inhibit the migration of any contaminant that has the potential to degrade the waters of the state.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24356)

NAC 445A.432 Minimum design criteria: Generally. NAC 445A.433 to 445A.438, inclusive, define the minimum design criteria required of each process component and the site and operating conditions which are considered to exist when these criteria are applied. These provisions establish minimum contaminant control technologies and define the site and operating conditions which must be evaluated. Based on site characterization, best engineering judgment will be applied to determine the degree to which designs must provide more or less protection through engineered containment.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24358)

NAC 445A.433 Minimum design criteria: Universal requirements; areas where ground water is near surface; proximity of new process components to dwellings; liability for degradation of water.

1. The following minimum design requirements apply to all process components:

(a) In areas where annual evaporation exceeds annual precipitation, a process component must achieve zero discharge.

(b) All sources must be designed to minimize releases of contaminants into ground waters or subsurface migration pathways so that any release from the facility will not degrade waters of the state.

(c) All process components must be designed to withstand the runoff from a 24-hour storm event with a 100-year recurrence interval.

(d) The primary fluid management system must be designed to be able to remain fully functional and fully contain all process fluids including all accumulations resulting from a 24-hour storm event with a 25-year recurrence interval. The department may require additional containment based on the following factors:

(1) Proximity to surface water bodies;

(2) Depth to ground water; and

(3) Proximity to population.

Contingency plans for managing process contaminated flows in excess of the design quantity must be described in the appropriate operating plans.

(e) The fluid management system must be designed to be functional for 5 years after the projected operating life of the process component and permanent closure period.

(f) The design of the process components must take into consideration the proposed range of operating conditions for each component and the history of seismic events at the site in order to preclude any differential movement or shifting of the subbase, liner or contained material which endangers primary or secondary containment integrity.

2. Additional containment of process fluids may be required in areas where ground water is considered to be near the surface. Ground water is considered to be near the surface if:

(a) The depth from the surface to ground water is less than 100 feet and the top 100 feet of the existing formation has a coefficient of permeability greater than that exhibited by 100 feet of 1x10-5 cm/sec material;

(b) Open fractured or faulted geologic conditions exist in the bedrock from the surface to the ground water; or

(c) There is an inability to document that all exploratory and condemnation borings beneath the site have been adequately sealed.

3. No new process component containing process fluids may be located within 1,000 feet of any dwelling which is occupied at least part of the year and which is not a part of the facility. This restriction does not apply to modifications at a facility which predate such a dwelling.

4. The application of minimum design criteria does not release the holder of a permit from liability for degradation to waters of the state caused by the facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2436)

NAC 445A.434 Minimum design criteria: Leach pads and other nonimpounding surfaces designed to contain and promote horizontal flow of process fluids. Leach pads and other nonimpounding surfaces which are designed to contain, not impound, process fluids and to promote the horizontal flow of process fluids must meet the following requirements:

1. Process fluids must exert only minimal hydraulic head on the liner.

2. Containment of process fluids must consist of an engineered liner system which provides containment equal to or greater than that provided by a synthetic liner placed on top of a prepared subbase of 12 inches of native, imported or amended soil, which has a maximum recompacted in place coefficient of permeability:

(a) Of 1x10-6 cm/sec; or

(b) Of 1x10-5 cm/sec when combined with a system for the detection of leaks which must be located at least beneath those portions of the liner which have the greater potential for leakage. The potential for leakage must be determined by:

(1) The extent of the hydraulic head exerted on a portion of the liner; and

(2) The period of time a portion of the liner is exposed to process fluids.

3. If leach pads or other nonimpounding surfaces are located above areas where ground water is considered near the surface, the department may require a liner system with a higher level of engineered containment.

4. When a material or system which provides hydraulic relief is installed beneath a single liner, including, but not limited to, sand, french drains and geotextiles, regardless of the intent of

its design, it must function as a leak detection system and include a means for recovering process fluids.

5. Depending on the methods and materials used for their construction, the department may require all open channels which routinely transport process fluids to be traced by a leak detection system.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24362)

NAC 445A.435 Minimum design criteria: Ponds.

1. All ponds which are intended to contain process fluids must have a primary synthetic liner and a secondary liner. Between the liners there must be a material which has the ability to rapidly transport any fluids entering it to a collection point which:

(a) Is accessible; and

(b) Has a system for recovering those fluids.

2. When the material between the liners is unable to collect, transport and remove all liquids at a rate that will prevent hydraulic head transference from the primary liner to the secondary liner, the pond must be shut down.

3. Ponds which are primarily designed to contain excess quantities of process fluids that result from storm events for limited periods may be constructed with a single liner if approved by the department.

4. Ponds containing nonprocess fluids may be required to be lined depending on their potential to degrade waters of the state.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24364)

NAC 445A.436 Minimum design criteria: Vats, tanks and other containers which confine process fluids. Vats, tanks and other containers which confine process fluids and can be inspected for leaks visually do not require double liners if an area for secondary containment equal to 110 percent of the largest container is provided. Vats, tanks or other containers that are partially buried and cannot be visually inspected must have a system to detect leaks.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24366)

NAC 445A.437 Minimum design criteria: Tailings impoundments.

1. A tailings impoundment must utilize a system of containment equivalent to:

(a) Twelve inches of recompacted native, imported, or amended soils which have an in place recompacted coefficient of permeability of no more than 1x10-6 cm/sec; or

(b) Competent bedrock or other geologic formations underlying the site which has been demonstrated to provide a degree of containment equivalent to paragraph (a).

2. An alternate level of containment may be required by the department for all of the tailings impoundment or for a portion thereof after considering the following factors:

(a) The anticipated characteristics of the material to be deposited;

(b) The characteristics of the soil and geology of the site;

(c) The degree to which the hydraulic head on the impoundment liner is minimized;

(d) The extent and methods used for recycling or detoxifying fluids;

(e) Pond area and volume;

(f) The depth from the surface to all ground water; and

(g) The methods employed in depositing the impounded material.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24368)

NAC 445A.438 Minimum design criteria: Liners.

1. When placed on native materials, soil liners must have a minimum thickness of 12 inches and be compacted in lifts which are no more than 6 inches thick. Except when used in tailing

impoundments, a soil liner must have a permeability of not more than that exhibited by 12 inches of 1x10-7 cm/sec material.

2. Synthetic liners must be rated as having a resistance to the passage of process fluids equal to a coefficient of permeability of 1x10-11 cm/sec.

3. The department shall review for completeness the applicant's evaluation of the following design parameters, where applicable, for a liner:

(a) The type of foundation, slope and stability;

(b) The over liner protection and provisions for hydraulic relief;

(c) The load and means of applying load;

(d) The compatibility of a liner with process solutions;

(e) The complexity of the leak detection and recovery systems;

(f) The depth from the surface to all ground water; and

(g) The liner's ability to remain functionally competent until permanent closure has been completed.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2437)

NAC 445A.439 Program required to control quality of construction of liner systems. A quality assurance and quality control program must be developed and carried out for the construction of all liner systems. A summary of the quality control data must be submitted to the department with the as-built drawings.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24372)

NAC 445A.440 Monitoring: Site of facility.

1. The program to monitor the site of a facility must be designed to monitor the quality of all ground and surface water which may be affected by the facility. The type, number and location of the monitoring points must be described in the application as part of the monitoring plan and must be approved by the department.

2. Final monitoring requirements must be established by the department.

3. Baseline data must be collected before operation of the facility.

4. In areas where there is a substantial separation between the process components and the ground water, a system for monitoring highly probable escape pathways in the unsaturated zone may be required by the department.

5. The decision where to locate the monitoring points for the site must be made after considering the site's geology and hydrogeology.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24374)

NAC 445A.441 Monitoring: Procedure upon variation in parameter or element being monitored. If the department determines that there has been a variation in a parameter or element being monitored by the site-monitoring system as required in NAC 445A.440 which is caused by the facility and has the potential to degrade the waters of the state:

1. The holder of the permit shall conduct and submit an evaluation to the department which:

(a) Identifies the source and escape pathways of the elements of concern;

(b) Determines the type, extent and ability of a system needed to contain or confine any migrating contaminant; and

(c) Identifies methods which can be carried out to remediate the contamination during the continued operation of the facility or at permanent closure.

2. The department shall, based on the information provided pursuant to subsection 1:

(a) Require the immediate shut down of the process component and the immediate initiation of cleanup activities;

(b) Allow continued operation of the process component which is the source of the elements of concern with concurrent cleanup activities;

(c) Allow continued operation of the process component which is the source of the elements of concern while requiring the facility to continue to control the migration of the contaminant while cleanup activities are postponed; or

(d) Determine that no remedial action is warranted at the present time.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24376)

NAC 445A.442 Monitoring: Process components.

1. The department shall determine the extent and complexity to which the holder of a permit must monitor individual process components for the release of contaminants after reviewing site and process controlled design conditions. Systems designed to detect and control leaks from process components must be located at the interface of the unit process components and the adjacent environment and be able to provide the first indication that pollutants or contaminants have escaped their primary containment.

2. The program to monitor the process components must include:

(a) A schedule of activities;

(b) A roster of current job titles for persons responsible for and involved in the monitoring program; and

(c) The form and frequency of reports to be submitted to the department.

The department may randomly collect information or samples for reference. The cost of analyzing samples may be placed upon the holder of the permit.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24378)

NAC 445A.443 Monitoring: Beneficiation process. Monitoring of the beneficiation process must include the routine characterization of those process materials which will be disposed. The data obtained must be used by the holder of the permit to evaluate periodically and, when necessary, to refine the plan for the permanent closure of the facility.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.2438)

NAC 445A.444 Examples of planned and unplanned temporary closures.

1. The following are examples of planned temporary closures which have specific conditions defining their beginning and end:

(a) Seasonal closures because of normal weather cycles.

(b) Interruptions in the active beneficiation processes to provide planned periods of quiescence for metallurgical or operating reasons.

(c) Any other planned process condition which will interrupt the active beneficiation process.

2. The following are examples of unplanned temporary closures:

(a) A closure because of unforeseen weather events.

(b) A failure in a major system component or a process failure which causes the fluid management system or a portion thereof to shut down.

(c) The discontinuation of a facility's operations because of litigation.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24382)

NAC 445A.445 Procedure upon unplanned temporary closure of process component.

1. In the event of an unplanned temporary closure of one or more process components, the holder of the permit shall:

(a) Within 30 days after an unplanned temporary closure begins, inform the department of the closure and describe the procedures and controls which have been carried out to maintain the process components during this period.

(b) Within 90 days after the department has been notified of the unplanned temporary closure:

(1) Begin to evaluate the procedures which will be required to carry out a permanent closure of the process components affected and petition the department to approve one or more procedures needed for the permanent closure of the process components affected; or

(2) For just cause, request that the department grant an extension and delay permanent closure. Except as otherwise provided in subsection 2 of NAC 445A.420, the extension may not be longer than the remaining term of the existing permit or for 3 years, whichever is greater.

2. The department shall approve or disapprove the proposed procedures for permanent closure within 30 days after they are submitted to the department.

3. Unless the department has granted an extension pursuant to subparagraph (2) of paragraph (b) of subsection 1 within 270 days after the department has been notified of the unplanned temporary closure, the holder of the permit shall initiate the approved procedures for permanent closure.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24384)

NAC 445A.446 Permanent closure of facility.

1. The permanent closure of a facility must be initiated:

(a) Following the request of the holder of the permit;

(b) For a facility which is under a temporary closure, no later than at the end of one renewal of a 5-year permit which has been issued pursuant to subsection 2 of NAC 445A.420; or

(c) When the end of the design life of that process component is reached.

2. Permanent closure is complete when the requirements contained in NAC 445A.429, 445A.430 and 445A.431 have been achieved.

3. The time required for monitoring the facility following permanent closure depends upon the particular site and process characteristics, but in no event may the time required exceed 30 years.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24386)

NAC 445A.447 Plans for permanent closure; sources not classified as process components.

1. Plans for permanent closure are required for all sources at a facility.

2. A final plan for permanent closure of any source which has been identified as a process component must be submitted to the department at least 2 years before the anticipated permanent closure of that process component.

3. Sources which have not been classified as process components must be evaluated at the end of their operating life to determine the potential for pollutants from these sources to migrate and degrade the waters of the state under the final proposed site conditions and must be closed in accordance with the state handbook of best management practices prepared pursuant to NAC 445A.336.

(Added to NAC by Environmental Comm'n, eff. 9-1-89)—(Substituted in revision for NAC 445.24388)

PUBLIC WATER SYSTEMS

Water Quality

NAC 445A.450 Definitions. (NRS 439.200, 445A.055, 445A.855, 445A.860, 445A.863) As used in NAC 445A.450 to 445A.492, inclusive, unless the context otherwise requires:

1. "Health authority" means the officers and agents of the health division or the officers and agents of the local boards of health.

2. "Health division" means the health division of the department of human resources.

3. "Primary standard" means a standard which specifies a maximum contaminant level for any constituent found in a public water supply which, if exceeded, may adversely affect the health of persons.

4. "Properly certified laboratory" means a laboratory, including a mobile laboratory, that is certified as acceptable by the Nevada laboratory certification officer pursuant to a certification program approved by the Environmental Protection Agency and the regulations and procedures adopted by the state board of health.

5. "Public water system" has the meaning ascribed to it in NRS 445A.840 and includes a water authority in a county whose population is 400,000 or more.

6. "Water authority" has the meaning ascribed to it in NRS 377B.040.

7. The words and terms defined in 40 C.F.R. § 141.2 have the meanings ascribed to them in that section.

[Bd. of Health, Water Quality Standards Art. 1, eff. 12-14-77]—(NAC A 5-23-90; 9-19-90; 12-3-90; 8-1-91; 10-22-93; 9-6-96; R048-99, 9-27-99; R118-99, 2-10-2000)

NAC 445A.451 Applicability. (NRS 445A.855, 445A.860) The provisions of NAC 445A.450 to 445A.492, inclusive, apply to all public water systems unless a public water system:

1. Consists only of distribution and storage facilities and does not have any collection or treatment facilities;

2. Obtains all of its water from, but is not owned or operated by, a public water system to which NAC 445A.450 to 445A.492, inclusive, apply;

3. Does not sell water to any person; and

4. Is not a carrier which conveys passengers in interstate commerce.

[Bd. of Health, Water Quality Standards Art. 2 §§ 2.3-2.3.1.4, eff. 12-14-77]—(NAC A by R088-00, 8-3-2001)

NAC 445A.452 Construction.

1. Nothing contained in NAC 445A.450 to 445A.492, inclusive, may be interpreted to circumvent any of those sections to make them less effective.

2. If more than one interpretation exists for a section, the more restrictive interpretation applies.

[Bd. of Health, Water Quality Standards Art. 2 §§ 2.2-2.2.2, eff. 12-14-77]—(Substituted in revision for NAC 445.246)

NAC 445A.4525 Adoption by reference of certain provisions of "National Primary Drinking Water Regulations." (NRS 445A.855) The provisions of 40 C.F.R. §§ 141.1, 141.2, 141.4, 141.5, 141.11 to 141.16, inclusive, 141.21 to 141.30, inclusive, 141.31 to 141.35, inclusive, 141.40, 141.41, 141.42, 141.61 to 141.65, inclusive, 141.74, 141.80 to 141.91, inclusive, 141.100, 141.101, 141.110, 141.111, 141.130 to 141.135, inclusive, and 141.151 to 141.155, inclusive, of the "National Primary Drinking Water Regulations," as those provisions existed on February 16, 1999, are hereby adopted by reference. A copy of a publication containing those provisions is available from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954, or by telephone at (202) 512-1800, for the price of $47. Copies of those regulations are also available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/safewater/mcl.html**>.

(Added to NAC by Bd. of Health by R088-00, eff. 8-3-2001)

NAC 445A.453 Primary standards: Requirements. (NRS 445A.855, 445A.860) All public water systems must meet the requirements of NAC 445A.450 to 445A.492, inclusive, and of the "National Primary Drinking Water Regulations," as set forth in 40 C.F.R. §§ 141.1, 141.4, 141.5, 141.11 to 141.16, inclusive, 141.61 to 141.65, inclusive, 141.80 to 141.91, inclusive, 141.100, 141.101, 141.110, 141.111, 141.130 and 141.135, as adopted by reference in NAC

445A.4525, unless the state board of health gives notice that the requirements are not suitable for this state pursuant to NAC 445A.4915.

[Bd. of Health, Water Quality Standards Art. 3, eff. 12-14-77; A 5-3-81]—(NAC A 3-22-89; 12-3-90; 7-16-92; 8-1-94; 3-28-96; 9-6-96; R088-00, 8-3-2001)

NAC 445A.454 Primary standards: Monitoring and analysis. (NRS 439.200, 445A.855, 445A.863) The monitoring requirements for the primary standards set forth in NAC 445A.453 must be performed as required by 40 C.F.R. §§ 141.21 to 141.30, inclusive, 141.40, 141.41, 141.42, 141.131, 141.132 and 141.133, as adopted by reference in NAC 445A.4525, unless the state board of health gives notice that the requirements are not suitable for this state pursuant to NAC 445A.4915. Each analysis of the primary standards must be performed in compliance with NAC 445A.458 and in a laboratory that is certified pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive.

(Added to NAC by Bd. of Health, eff. 7-16-92; A 10-22-93; 8-1-94; 3-28-96; 9-6-96; R048-99, 9-27-99; R203-99, 8-1-2001; R088-00, 8-3-2001)

NAC 445A.455 Secondary standards: General requirements; public notice. (NRS 439.200, 445A.855, 445A.860)

1. Whenever any of the following chemical substances, as measured at representative points in the distribution system, is present in a public water supply in excess of the listed levels, and the health authority determines that there is another more suitable supply of water which is economically feasible, available in a sufficient quantity, and of a significantly higher quality, the supplier of water shall give notice to the public:

Substance	Level, Milligrams Per Liter
Chloride	250.0
Color	15.0 color units
Copper	1.0
Foaming Agents	0.5
Iron	0.3
Magnesium	125.0
Manganese	0.05
Odor	3.0 threshold odor number
pH	6.5-8.5
Sulfate	250.0
TDS (total dissolved solids dried at 180°C)	500.0
Zinc	5.0

2. The following chemical substances, as measured at representative points in the distribution system, must not be present in a public water supply in excess of the listed levels:

Substance	Level, Milligrams Per Liter
Chloride	400.0
Iron	0.6
Magnesium	150.0
Manganese	0.1
Sulfate	500.0
TDS (total dissolved solids dried at 180°C)	1000.0

3. Except as otherwise provided in NAC 445A.6682, the standard for fluoride in community and nontransient, noncommunity water systems is 2.0 milligrams per liter.

4. If a public water system exceeds one of the standards set by subsection 2 or 3 or the state board of health grants a variance from the requirement concerning that contaminant level, the supplier of water shall give notice to the public.

5. The notices required by subsections 1 and 4 must be:

(a) Published in a newspaper of general circulation in the area served by the system not more than 30 days after the standard is exceeded;

(b) Delivered personally or by mail to each person served by the system not more than 45 days after the standard is exceeded; and

(c) Published and delivered annually thereafter as provided in this section if the standard continues to be exceeded.

[Bd. of Health, Water Quality Standards Art. 4 §§ 4.1-4.2, eff. 12-14-77]—(NAC A 3-22-89; 12-3-90; 9-6-96; R118-99, 2-10-2000)

NAC 445A.456 Secondary standards: Monitoring.

1. Analysis for all public water systems must be completed by June 24, 1979. Analysis must be repeated at 3-year intervals or at lesser intervals if required by the health authority.

2. If the result of an analysis made pursuant to subsection 1 indicates that the level of any contaminant listed in NAC 445A.455 exceeds the maximum level, the supplier of water must report to the health authority within 30 days and initiate 3 additional analyses at the same sampling point within 90 days. When the average of four analyses made pursuant to this subsection exceeds the maximum level, the supplier of water must notify the health authority and give notice to the public. Notice to the public must be in such form and manner as prescribed by the health authority and must ensure that the public using the system is adequately informed.

3. Monitoring after public notification must be at a frequency designated by the health authority and must continue until the level has not been exceeded in two successive samples or until a monitoring schedule as a condition to a variance or enforcement action becomes effective.

4. A supplier of water is not required to report results to the health authority where a state laboratory performs the analysis and reports the results to the health authority.

[Bd. of Health, Water Quality Standards Art. 4 §§ 4.3-4.3.3.3, eff. 12-14-77]—(Substituted in revision for NAC 445.249)

NAC 445A.457 Secondary standards: Analysis. Any analysis conducted to determine compliance with NAC 445A.455 must be made in accordance with one of the following methods:

1. Any method listed in 40 C.F.R. Part 143. A copy of Part 143 may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a cost of $41.

2. Any method listed in 40 C.F.R. Part 136. A copy of Part 136 may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for the price of $41.

3. Any method approved by the United States Environmental Protection Agency as an accepted alternative test procedure for drinking water.

[Bd. of Health, Water Quality Standards Art. 4 §§ 4.4-4.4.10, eff. 12-14-77]—(NAC A 3-22-89; 3-28-96)

NAC 445A.458 Conduct of analysis. (NRS 439.200, 445A.855, 445A.863)

1. Except as otherwise provided in this section, each analysis required by NAC 445A.4525 to 445A.457, inclusive, must be performed by a properly certified laboratory.

2. Turbidity measurements may be made by a certified laboratory or by water supply personnel utilizing an instrument capable of meeting the requirements of 40 C.F.R. § 141.22(a), as adopted by reference pursuant to NAC 445A.4525.

3. Chlorine residual measurements when authorized as a substitute for coliform bacteria monitoring may be made by the water supplier utilizing an instrument and methods capable of meeting the requirements of 40 C.F.R. § 141.74, as adopted by reference in NAC 445A.4525.

[Bd. of Health, Water Quality Standards Art. 5, eff. 12-14-77]—(NAC A 3-22-89; 5-23-90; 9-6-96; R048-99, 9-27-99; R203-99, 8-1-2001; R088-00, 8-3-2001)

NAC 445A.459 Methods of obtaining samples of water.

1. Samples of water taken for the purpose of a complete chemical analysis must be taken as provided in this section.

2. A sample taken to analyze levels of components not requiring preservation must be collected in a clean glass or plastic half-gallon or gallon container. A thoroughly rinsed plastic distilled water bottle or unused plastic milk bottle, obtainable at a dairy or a food or drug store, is recommended for this purpose.

3. A sample taken to analyze levels of nitrates and metals must be collected in a container provided by the laboratory performing the analysis, using the appropriate materials for preservation provided by the laboratory. These materials may be added to the containers by the laboratory before the sample is taken. Care must be exercised in using such materials because of their hazardous nature.

4. A sample taken to analyze levels of trace organic materials must be taken in a glass container provided by the laboratory performing the analysis. The laboratory shall also provide any preservatives required for preventing deterioration of the organic materials.

5. If any representative sample is taken from a well for the purpose of chemical analysis:

(a) Except as otherwise provided in paragraph (b), an amount of water equivalent to four to ten times the bore volume of the well must be pumped from the well before the sample is taken.

(b) In the case of a new well, the well must be pumped until all artifacts of the drilling process have been removed and the water flows clean and clear, and in any event for not less than 24 hours.

(c) The sample must be taken in a manner consistent with that described in chapter 9, section 9.6, of the *Handbook for Sampling and Sample Preservation of Water and Wastewater*, EPA-600/4-82-029, in the form most recently published by the Environmental Protection Agency, unless the state board of health gives notice that the most recent publication is not suitable for this state pursuant to NAC 445A.4915.

6. If any representative sample is taken from a distribution system for the purpose of chemical analysis:

(a) The water line from which the sample is taken must be flushed until the temperature of the water stabilizes.

(b) The sample must be taken in a manner consistent with that described in chapter 9, section 9.9, of the *Handbook for Sampling and Sample Preservation of Water and Wastewater*, EPA-600/4-82-029, in the form most recently published by the Environmental Protection Agency, unless the state board of health gives notice that the most recent publication is not suitable for this state pursuant to NAC 445A.4915.

7. If any sample is taken for the purpose of bacteriological examination, the sample must be collected in a container obtained from the laboratory performing the analysis of the sample.

8. A copy of the *Handbook for Sampling and Sample Preservation of Water and Wastewater* is available from the United States Environmental Protection Agency, EMSL-CI, Cincinnati, Ohio 45268, at a cost of $38.95.

[Bd. of Health, Municipal Water Supplies Reg., eff. 1962]—(NAC A 3-22-89; 9-6-96)

NAC 445A.485 Reporting, public notification and recordkeeping. (NRS 445A.855, 445A.860)

1. The owner or operator of a public water system who fails to perform monitoring as required by 40 C.F.R. § 141.21, as adopted by reference in NAC 445A.4525, shall notify all persons served by the system within 45 days after the violation or failure. All other activities of reporting, public notification and recordkeeping must be performed as required by 40 C.F.R. §§

141.31 to 141.35, inclusive, 141.134 and 141.151 to 141.155, inclusive, as adopted by reference in NAC 445A.4525, and by NAC 445A.450 to 445A.492, inclusive.

2. Daily turbidity measurements must be compiled on a monthly basis and analyzed as required by 40 C.F.R. § 141.22, as adopted by reference in NAC 445A.4525. The compiled results must be sent to the health division before the 10th day of the following month. Water suppliers located in Clark County or Washoe County shall report to the applicable district health department.

[Bd. of Health, Water Quality Standards Art. 6, eff. 12-14-77]—(NAC A 7-16-92; R077-99, 9-27-99; R088-00, 8-3-2001)

NAC 445A.486 Obtaining results of analyses of water supplies. A copy of the results of the analysis of water supplies throughout Nevada may be obtained from the Department of Human Resources, Health Division, Office of the State Health Officer, 505 E. King Street, Carson City, Nevada 89710.

[Bd. of Health, Municipal Water Supplies Reg., eff. 1962]—(Substituted in revision for NAC 445.2565)

NAC 445A.487 Variances: Conditions and procedure for granting.

1. The state board of health may grant a variance from a primary drinking water regulation to a public water system which cannot meet a requirement respecting a maximum contaminant level specified in such drinking water regulation because of characteristics of the raw water source or sources which are reasonably available to the system despite application of the best technology, treatment techniques or other means which the board finds are reasonably available after taking costs into consideration. Before such a variance may be granted, the board must find that the variance will not result in an unreasonable risk to health.

2. The state board of health may grant a variance to a public water system from any provision of a primary drinking water regulation which requires the use of a specified treatment technique with respect to a contaminant. Prior to the issuance of such a variance, the public water system must demonstrate to the satisfaction of the board that the treatment technique is not necessary to protect the health of persons because of the nature of the raw water source of the system.

3. The state board of health may grant a variance from a secondary drinking water regulation to a public water system in accordance with the procedures for seeking variances from the state board of health set forth in chapter 439 of NAC.

4. Public hearings and other procedures for consideration of requests for variances from NAC 445A.450 to 445A.492, inclusive, must be conducted in accordance with the procedures for seeking variances from the state board of health as set forth in chapter 439 of NAC.

[Bd. of Health, Water Quality Standards Art. 6, eff. 12-14-77]—(NAC A 7-16-92)—(Substituted in revision for NAC 445.257)

NAC 445A.488 Variances: Prescription of additional control measures and schedules for compliance.

1. The state board of health will, when it grants a variance to a public water system, prescribe:

(a) A schedule for compliance, including increments of progress, with the contaminant level requirement with respect to which the variance was granted.

(b) Such additional control measures as it may require for the contaminant during the period ending on the date compliance with the requirement is required.

2. No such schedule for compliance or effectuation may take effect until the state or district board has approved, or approved with modifications, the schedule after notice and a public hearing held in the same manner as the variance hearing.

3. A schedule approved by the state or district board must require compliance by the water system with each contaminant level requirement for which the variance was granted, as expeditiously as the board determines to be practicable.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.1.2-7.1.2.2.2, eff. 12-14-77]—(NAC A 12-3-90)—(Substituted in revision for NAC 445.258)

NAC 445A.489 Exemptions: Conditions and procedure for granting.

1. The state board of health may grant an exemption from any requirement respecting a maximum contaminant level or treatment technique of an applicable primary drinking water regulation to:

(a) A public water system which was in operation on the effective date of the requirement if:

(1) Because of compelling factors, including economic considerations, the public water system is unable to comply; and

(2) The granting of the exemption will not result in an unreasonable risk to health; or

(b) A public water system which was not in operation on the effective date of the requirement if:

(1) Because of compelling factors, including economic considerations, the public water system is unable to comply;

(2) There is no reasonable alternative source of drinking water available to the public water system; and

(3) The granting of the exemption will not result in an unreasonable risk to health.

2. Public hearings and other procedures for consideration of requests for exemptions from NAC 445A.450 to 445A.540, inclusive, must be conducted in accordance with the procedures for seeking variances from the state board of health set forth in chapter 439 of NAC.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.4-7.4.3 & 7.6, eff. 12-14-77]—(NAC A 12-3-90; 7-16-92)—(Substituted in revision for NAC 445.259)

NAC 445A.490 Exemptions: Prescription of control measures and schedules for compliance.

1. The state board of health will, when it grants an exemption to a public water system, prescribe:

(a) A schedule for compliance, including increments of progress, with the contaminant level or treatment technique requirement with respect to which the exemption was granted.

(b) Such control measures as it may require for the contaminant during the period ending on the date compliance with the requirement is required.

2. No such schedule for compliance or effectuation may take effect until the state or district board has approved, or approved with modifications, the schedule after notice and a public hearing held in the same manner as the exemption hearing.

3. A schedule approved by the state or district board must require compliance by the water system with each contaminant level requirement for which the exemption was granted as expeditiously as the board determines to be practicable except:

(a) In the case of an exemption granted with respect to a contaminant level or treatment technique requirement prescribed by the "National Primary Drinking Water Regulations" adopted pursuant to § 300g-1 (a) of the Federal Act, not later than June 19, 1987;

(b) In the case of an exemption granted with respect to a contaminant level or treatment technique requirement prescribed by the "National Primary Drinking Water Regulations," other than for a regulation adopted pursuant to § 300g-1(a) of the Federal Act, not later than 12 months after the date of the issuance of the exemption; or

(c) As otherwise provided by the Federal Act.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.5-7.5.4.3, eff. 12-14-77]—(NAC A 12-3-90)—(Substituted in revision for NAC 445.260)

NAC 445A.491 Variances and exemptions: Appeals.

1. Any supplier of water who feels himself aggrieved by the action of the district board of health in approving or approving with modifications any schedule for compliance or effectuation submitted pursuant to a variance or an exemption may appeal the action to the state board of health by filing a written notice of appeal with the district health department within 30 days of the written decision on the schedule.

2. The district health department must forward to the secretary of the state board of health the full record of the proceedings, including all exhibits, the original application and the written decision within 10 days of the filing of the notice of appeal.

3. Users of the water supply who feel themselves aggrieved by the action of the district board of health may appeal in the same manner as the supplier of water. Such an appeal must be supported by a minimum of 10 percent of the users of the system for systems serving a population of less than 5,000 and by a minimum of 5 percent for larger systems.

4. The state board of health will consider all such appeals at regularly scheduled public hearings, no later than 60 days after receipt of the record on appeal.

5. Evidence presented to the state board of health on appeal is limited to that introduced before the district board of health.

6. At the conclusion of the hearing, the matter stands submitted and the state board of health will enter a written decision, including findings of fact, within 14 days of the hearing date.

[Bd. of Health, Water Quality Standards Art. 7 §§ 7.8-7.9.2, eff. 12-14-77]—(Substituted in revision for NAC 445.261)

NAC 445A.4915 Determination of suitability for this state of revision of publication adopted by reference. If any publication adopted by reference pursuant to NAC 445A.450 to 445A.492, inclusive, is revised, the state board of health will review the revision to determine its suitability for this state. If the board determines that the revision is not suitable for this state, it will hold a public hearing to review its determination and give notice of that hearing within 6 months after the date of the publication of the revision. If, after the hearing, the board does not revise its determination, the board will give notice that the revision is not suitable for this state within 30 days after the hearing. If the board does not give such notice, the revision becomes part of the publication adopted by reference pursuant to NAC 445A.450 to 445A.492, inclusive.

(Added to NAC by Bd. of Health, eff. 9-6-96)

NAC 445A.492 Severability. If any of the provisions of NAC 445A.450 to 445A.492, inclusive, or any application thereof to any person, thing or circumstance is held invalid, it is intended that such invalidity not affect the remaining provisions, or their application, that can be given effect without the invalid provision or application.

[Bd. of Health, Water Quality Standards Art. 2 § 2.1.1, eff. 12-14-77]—(Substituted in revision for NAC 445.262)

Treatment of Water

NAC 445A.495 Definitions. (NRS 445A.860) As used in NAC 445A.495 to 445A.540, inclusive, unless the context otherwise requires:

1. The words and terms defined in NAC 445A.497 to 445A.516, inclusive, have the meanings ascribed to them in those sections; and

2. The words and terms defined in 40 C.F.R. § 141.2, as adopted by reference pursuant to NAC 445A.5175, have the meanings ascribed to them in that section.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.497 "Concentration of residual disinfectant" defined. "Concentration of residual disinfectant" means the concentration of disinfectant, measured in milligrams per liter, in a representative sample of water.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2632)

NAC 445A.498 "Concentration times time" defined. "Concentration times time" means the product of the concentration of residual disinfectant in milligrams per liter of water that is determined before or at the point the water reaches the first customer served in the system for distribution and the corresponding disinfectant contact time in minutes.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2633)

NAC 445A.507 "Health division" defined. "Health division" means the health division of the department of human resources.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2642)

NAC 445A.508 "Heterotrophic plate count" defined. "Heterotrophic plate count" means the measurement of the total number of viable bacteria which use organic material as their carbon source in a sample of water.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2643)

NAC 445A.509 "Level of turbidity" defined. "Level of turbidity" means the value in units of nephelometric turbidity obtained by measuring the turbidity of a representative sample of water at a specified regular interval of time. If continuous turbidity monitoring is used, the level of turbidity is the discrete turbidity value at a given time.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2644)

NAC 445A.510 "Outbreak of water-borne disease" defined. "Outbreak of water-borne disease" means the significant occurrence of acute infectious illness, associated epidemiologically with the ingestion of water from a public water system that has been determined by the health division to be deficient in treatment.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2645)

NAC 445A.514 "Unit of nephelometric turbidity" defined. "Unit of nephelometric turbidity" means a measurement of the turbidity of water as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light, using instrumentation and methods as described in *Standard Methods for the Examination of Water and Wastewater*.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2649)

NAC 445A.516 "Watershed" defined. "Watershed" means the area contained in a basin of drainage or a subbasin of drainage which is tributary to a point of diversion of a supply of water.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2651)

NAC 445A.517 Applicability. The provisions of NAC 445A.495 to 445A.540, inclusive, apply to:

1. Any public water system using surface water or ground water under the direct influence of surface water; and

2. Any supplier of water who owns, controls or operates such a system.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2652)

NAC 445A.5175 Adoption by reference of certain provisions of "National Primary Drinking Water Regulations." (NRS 445A.860) The provisions of 40 C.F.R. §§ 141.2, 141.70 to 141.75, inclusive, and 141.170 to 141.175, inclusive, of the "National Primary Drinking Water Regulations," as those provisions existed on February 16, 1999, are hereby adopted by reference. A copy of a publication containing those provisions is available from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954, or by telephone at (202) 512-1800, for the price of $47. Copies of those regulations are also available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/safewater/mcl.html**>.

(Added to NAC by Bd. of Health by R088-00, eff. 8-3-2001)

NAC 445A.518 Submission of plan for compliance with requirements; date for final compliance. (NRS 445A.860)

1. A supplier of water who is notified by the health division that the public water system is not meeting any of the requirements for treatment set forth in NAC 445A.5175, 445A.520, 445A.521 or 445A.526 to 445A.540, inclusive, shall submit a detailed plan to the health division, not less than 120 days after the date of notification, containing a feasible timetable for bringing the system into compliance with these sections.

2. The date for final compliance must not be later than June 29, 1993, or 18 months after notification by the health division that ground water is under the direct influence of surface water, whichever is later, unless an extension is granted by the health division.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.519 Procedure for review of actions taken by health division; appeals. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)

1. A person who has reason to believe that an action taken by the health division pursuant to NAC 445A.495 to 445A.540, inclusive, is incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee.

2. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the bureau, except that the informal conference must be held no later than 60 days after the date on which the bureau received the written request.

3. Except as otherwise provided in subsection 4, the determination of the bureau resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.

4. A person who is aggrieved by an action of the health division taken pursuant to NAC 445A.495 to 445A.540, inclusive, relating to the denial of an application for or renewal of a permit or the suspension or revocation of a permit may appeal that action in accordance with NAC 439.300 to 439.395, inclusive, after exhausting the informal procedures set forth in this section, except that the bureau may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.

5. As used in this section, "bureau" means the bureau of health protection services of the health division of the department of human resources or its successor.

(Added to NAC by Bd. of Health, eff. 11-29-90; A 10-30-97)

NAC 445A.520 General requirements for treatment. (NRS 445A.860)

1. Except as otherwise provided in this section, each supplier of water shall treat the water in accordance with NAC 445A.521 and 445A.526, and 40 C.F.R. §§ 141.70 and 141.170, as adopted by reference in NAC 445A.5175.

2. A supplier of water who meets the standards of performance set forth in this section and NAC 445A.521 and 445A.526 and meets the operating criteria set forth in NAC 445A.533 will be considered to be in compliance with the requirements of subsection 1.

3. The health division may require a higher degree of treatment than required by subsection 1, depending on the degree of contamination within the source water.

4. The state board of health will not grant a variance from the provisions of this section.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.521 Filtration: Acceptable methods of treatment. (NRS 445A.860)

1. Each supplier of water shall treat the water in accordance with 40 C.F.R. §§ 141.73 and 141.173, as adopted by reference in NAC 445A.5175.

2. The state board of health will not grant a variance from the provisions of this section.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.522 Filtration: Applicable efficiencies for removal. (NRS 445A.860)

1. For the purposes of meeting the levels of treatment set forth in NAC 445A.520:

(a) Conventional filtration treatment is presumed to be capable of achieving at least 99.7 percent or 2.5 log removal of Giardia cysts and 99 percent or 2-log removal of viruses if the process is in compliance with the operating criteria set forth in NAC 445A.533 and the standards of performance set forth in NAC 445A.521; and

(b) Treatment by direct filtration, diatomaceous earth filtration and slow sand filtration is presumed capable of achieving at least a 99 percent or 2-log removal of Giardia cysts and a 90 percent or 1-log removal of viruses if the process is in compliance with the criteria and standards set forth in paragraph (a).

2. The health division may grant higher efficiencies for removal than those specified in this section if the supplier of water demonstrates to the division that the higher efficiency for removal can be obtained reliably.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.524 Filtration: Use of alternative technology. (NRS 445A.860)

1. The use of an alternative filtration technology, including packaged treatment plants, may be approved by the health division if the following requirements are met:

(a) The supplier of water demonstrates that the technology proposed provides a minimum of 99 percent or 2-log removal of Giardia cysts and a 90 percent or 1-log removal of viruses. The process must meet the standards of performance established in NAC 445A.521.

(b) An engineering report is submitted to the health division documenting the results of experiments done at pilot plants or tests completed on a full-scale installation that is treating water with similar characteristics and exposed to similar hazards as the water proposed for treatment.

2. If the use of an alternative filtration technology is approved by the health division, the supplier of water shall submit an engineering report, not less than 6 months after the system becomes operational, verifying that the alternative technology meets the standards established for performance under actual conditions of operation.

3. If the supplier of water does not meet these standards, he shall submit to the health division a timetable for the correction of the deficiencies.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.525 Filtration: Avoidance of requirements. (NRS 445A.860)

1. A supplier of water may apply to the health division to operate without installing a system for filtration. The health division may grant this request if the supplier of water, not later

than December 30, 1991, or 18 months after notification by the health division that a ground water system is under the direct influence of surface water, whichever is later, meets the requirements set forth in 40 C.F.R. §§ 141.71 and 141.171, as adopted by reference in NAC 445A.5175, except that, for systems located at Lake Tahoe, the supplier of water must demonstrate that a level of protection, which is equivalent to watershed control, is provided by the location of the intake structure.

2. To avoid the requirements for filtration, a supplier of water must comply with the provisions that are set forth in 40 C.F.R. §§ 141.74(b) and 141.75(a), as adopted by reference in NAC 445A.5175. Additional information on obtaining approval to operate without filtration is outlined in the *Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources*, 1991 edition (#PB93-222933INZ). This document is available at a cost of $101 from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.526 Standards for disinfection. (NRS 445A.860)

1. Each supplier of water shall provide disinfection treatment in accordance with 40 C.F.R. §§ 141.72 and 141.172, as adopted by reference in NAC 445A.5175.

2. The state board of health will not grant a variance or an exemption from the provisions of this section.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.527 Requirements for monitoring. (NRS 445A.860)

1. Except as otherwise provided in this section, each supplier of water shall, on or after June 29, 1993, or on the date the system for filtration is installed, whichever is later, meet the requirements set forth in 40 C.F.R. §§ 141.74 and 141.174, as adopted by reference in NAC 445A.5175.

2. A supplier of water shall measure and record the parameters that are needed to determine compliance with the requirements for concentration times time, including, but not limited to:

(a) The temperature of the disinfected water;

(b) The pH of the disinfected water, if chlorine is used as a disinfectant;

(c) The disinfectant contact time; and

(d) The concentration of the residual disinfectant before or at the point the water reaches the first customer.

3. A supplier of water shall measure the concentration of residual disinfectant or heterotrophic plate count within the distribution system at the same frequency and at the same time and location as total coliforms are measured. A supplier of water that uses both a source of surface water or ground water under the direct influence of surface water, and a source of ground water that is not under the direct influence of surface water, may petition the health division for alternate sampling locations if he demonstrates that these sampling points are more representative of the disinfected surface water or ground water under the direct influence of surface water in the distribution system.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.529 Submission of engineering report for system of treatment installed before November 29, 1990. (NRS 445A.860) A supplier of water that has installed a system for treatment before November 29, 1990, which does not consist of technologies pursuant to which the supplier of water shall treat water in compliance with NAC 445A.521 or which was not designed to comply with the operating criteria in NAC 445A.531 and 445A.533, shall submit to the health division an engineering report which demonstrates that the plant can be operated to supply water meeting the requirements for performance contained in NAC 445A.521 and

445A.526. This report must include an analysis of the previous 12 months of operating data and any special studies conducted to test the performance of the plant under conditions of adverse water quality.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.530 Submission of engineering report before construction or modification of facility; standards for design.

1. A supplier of water proposing to:

(a) Construct a new facility for filtration and disinfection; or

(b) Make additions to or modify significantly an existing facility for treatment,

must submit an engineering report to the health division. The report must be approved by the division before the supplier begins construction. The report must also describe how the facility will be designed to ensure that it complies with this section and NAC 445A.531.

2. A new facility for filtration and disinfection must:

(a) Be designed to attain an average daily effluent turbidity goal of 0.2 units of nephelometric turbidity when using conventional, direct, and diatomaceous earth filtration plants.

(b) Be free of structural and sanitary hazards.

(c) Provide for protection against contamination by backflow.

(d) Provide equipment for measuring and recording flow.

(e) Be designed to mitigate the effects of events such as earthquakes, fires, floods, freezing and sabotage that are reasonably foreseeable.

(f) Provide reasonable access for inspection, maintenance, and monitoring of all unit processes.

(g) Provide for a coagulation process that includes rapid chemical mixing and is based on pilot plant or laboratory scale or equivalent results that demonstrate effectiveness of the coagulant chemicals over the full range of water quality conditions expected.

(h) Provide for filter-to-waste for each filter unit or addition of coagulant chemicals or organic polymers to the water used for backwashing.

(i) Provide backwash rates and facilities for surface or subsurface wash using air, water or a combination of these to clean the filter.

(j) Provide treatment for the removal of solids from filter backwash water if the water is recycled into the treatment process. Recycled backwash water must be returned to the headworks of the treatment plant.

(k) Make provision for facilities for pretreatment in the design of direct filtration, slow sand filtration, or diatomaceous earth filtration plants.

(l) Provide equipment for disinfection that is of proper size for the full range of expected conditions of flow and capable of feeding accurately at all rates of flow.

(m) Provide for operation of the treatment plant without frequent shutdowns and start-ups.

3. As used in this section, “filter-to-waste” means a provision in the filtration process to allow the water that was filtered first to be wasted or reclaimed.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2665)

NAC 445A.531 Inclusion of features for reliability in design and construction of plant. The following features for reliability or alternatives acceptable to the health division must be included in the design and construction of any plant that treats surface water or ground water under the direct influence of surface water:

1. Alarm devices to indicate failures in the coagulation, filtration, and disinfection processes. The alarm must notify the person designated by the public water system as responsible for taking corrective action or, if the facility is unmanned, have the capability to shut the plant down until corrective action can be taken.

2. Standby replacement equipment to ensure continuous operation and control of unit processes for coagulation, filtration and disinfection.

3. Multiple filter units to provide redundant capacity if filters are out of service for backwash or maintenance.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2666)

NAC 445A.532 Certification of persons operating facility. (NRS 445A.860, 445A.880) A supplier of water shall, not later than 6 months after receiving notification from the health division that its public water system is using surface water or ground water under the direct influence of surface water, ensure that the persons who operate the facility for treatment have received a certificate to operate the facility as required by NAC 445A.626.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.533 Standards for operation of facility for filtration. A facility for filtration must be operated in accordance with the following requirements:

1. A plant for conventional and direct filtration must be operated at a rate of flow not to exceed 3 gallons per minute per square foot for single media filters and 6 gallons per minute per square foot for deep bed, dual or mixed media filters under conditions of gravity flow. For pressure filters, the rates of filtration must not exceed 2 gallons per minute per square foot for single media filters and 3 gallons per minute per square foot for dual, mixed media, or deep bed filters.
2. A slow sand filter must be operated at a rate of filtration not to exceed 0.1 gallons per minute per square foot. The filter bed must not be dewatered except for cleaning and maintenance.
3. A diatomaceous earth filter must be operated at a rate not to exceed 1 gallon per minute per square foot.
4. During normal operating conditions, any filter removed from service must be backwashed upon start-up.
5. Rates of filtration must be increased gradually when placing filters back into service after backwashing or any other interruption in the operation of the filter.
6. In a plant using conventional and direct filtration, the turbidity of filtered water from any individual filter after backwashing or any other interruption must be less than 0.5 units of nephelometric turbidity after 4 hours of the initial operation of the filter, and the individual turbidity of the filter effluent must be less than or equal to 1 unit of nephelometric turbidity in at least 90 percent of interruption events during any consecutive 12-month period. The level of turbidity must never exceed 2 units of nephelometric turbidity before placing the filter back into operation. Compliance with this requirement will be determined by using data from the previous 12 months.
7. A pressure filter must be inspected physically and evaluated annually for occurrences such as media condition, formation of balls of mud and short circuiting. A written record of the inspection must be maintained at the treatment plant.
8. Coagulation and flocculation unit processes must be in use at all times when a plant using conventional and direct filtration is in operation. The effectiveness and optimization of these processes must be demonstrated by jar testing, pilot filter column testing or other means acceptable to the health division.
9. The level of turbidity of filtered water from each filter unit must be monitored with a continuous turbidity meter and recorder, or with a sampling program approved by the health division. If this monitoring indicates that any filter unit is not performing as required by subsection 6, the filter must be taken out of service and inspected to determine the cause of its inadequate performance. The filter unit must not be returned to service until its deficiencies have been corrected and tests have been made to ensure that the filter unit meets these requirements.

10. To obtain approval for rates higher than those specified in subsections 1, 2 and 3 of this section, a supplier of water must demonstrate to the health division that his filters can ensure the same water quality at the increased rates of flow.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2668)

NAC 445A.534 Equipment of facility for disinfection. A facility for disinfection must be equipped with:

1. A reserve supply of chemicals; and
2. An emergency plan to be put into effect if there is a failure in the disinfectant process. The object of the plan must be to prevent delivery to the distribution system of any water that has not been disinfected or that has been disinfected inadequately. The plan must be posted in the treatment plant or in any other place that is accessible to the operator of the plant.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2669)

NAC 445A.535 Requirements for plan of operations.

1. A supplier of water shall submit a plan of operations for each facility that treats surface water or ground water under the direct influence of surface water to the health division for review and approval. The plan must be designed to produce the optimal quality of water from the treatment process. The supplier shall operate the facility in accordance with the approved plan.
2. The plan must include a description of:

(a) The program for monitoring the performance of the treatment plant;
(b) The program for maintaining unit process equipment;
(c) The persons who operate the facility, including the number of the staff and the level of their training;
(d) The operation of each unit process;
(e) The procedures used in the laboratory, if applicable;
(f) The procedures used to determine chemical dose rates;
(g) The records of the facility;
(h) The procedure for responding to an emergency at the plant or involving the watershed; and
(i) Any other features that contribute to the reliable operation of the plant.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.267)

NAC 445A.536 Maintenance of records.

1. Each supplier of water must maintain accurate and complete records of the operation of each treatment plant using surface water or ground water under the direct influence of surface water. The records must include:

(a) The results of all monitoring conducted in accordance with NAC 445A.527;
(b) The date of any maintenance or inspection of a filter and the results of the inspection, including any evaluation of a pressure filter required by subsection 7 of NAC 445A.533;
(c) The quantity of water produced;
(d) The hours of operation;
(e) The rates of flow at the plant;
(f) The rates of filtration;
(g) The rates of backwash; and
(h) The dates and description of failures of major equipment or unit processes and the action taken to correct these failures.

2. The records of a treatment plant must be retained for not less than 2 years, unless the health division has determined otherwise.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2671)

NAC 445A.537 Submission of monthly reports. (NRS 445A.860)

1. Each supplier of water shall submit to the health division, on or after June 29, 1993, or on the date the system for filtration is installed, whichever is later, a monthly report on the operation of each facility not later than the 10th day of the following month.

2. The monthly report must include:

(a) A written explanation of the cause of any violation of the standards of performance set forth in NAC 445A.521 and 445A.526 and the operating criteria set forth in NAC 445A.533; and

(b) The information required by 40 C.F.R. §§ 141.75 and 141.175, as adopted by reference in NAC 445A.5175.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.538 Events for which notification of health division required. Beginning on or after June 29, 1993, or on the date the system for filtration is installed, whichever is later, each supplier of water shall notify the health division by telephone as soon as possible, but not later than the end of the next business day, whenever:

1. The turbidity of the filter effluent exceeds 5 units of nephelometric turbidity.

2. More than two consecutive samples of the turbidity of the combined filter effluent taken every 4 hours exceed 1 unit of nephelometric turbidity.

3. There is a failure to maintain at least 0.2 milligrams per liter of residual disinfectant in the water being delivered to the distribution system, regardless of whether the residual level of disinfectant was restored to at least 0.2 milligrams per liter within 4 hours.

4. An event occurs which may affect the ability of the treatment plant to produce safe, potable water including, but not limited to, spills of hazardous materials in the watershed and failures of the unit treatment process.

5. An outbreak of water-borne disease that is potentially attributable to the water system occurs.

(Added to NAC by Bd. of Health, eff. 11-29-90)—(Substituted in revision for NAC 445.2673)

NAC 445A.539 Periodic performance of sanitary survey of watershed; report of survey. (NRS 445A.860)

1. A sanitary survey of the watershed of a public water system must be performed by a qualified professional engineer or other person approved by the health division at least once every 5 years.

2. A report of the survey, including:

(a) A physical and hydrogeological description of the watershed;

(b) A summary of the data compiled in monitoring the quality of the water;

(c) A description of activities and sources of contamination;

(d) A description of any significant changes that have occurred since the last survey which could affect the quality of the water;

(e) A description of the ability of the system to meet the requirements of NAC 445A.520, 445A.521, 445A.526 and 445A.529 to 445A.540, inclusive; and

(f) Any recommendations for corrective actions,

must be submitted to the health division not less than 60 days after the completion of the survey.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

NAC 445A.540 Requirements for notification of persons served by system. (NRS 445A.860)

1. A supplier of water shall notify persons served by the public water system:

(a) If he has not installed a system for filtration by June 29, 1993, and has not met the requirements of NAC 445A.525; or

(b) Whenever an outbreak of water-borne disease occurs.

2. Beginning on or after June 29, 1993, or on the date a system for filtration is installed, whichever is later, a supplier of water shall notify persons served by the public water system whenever there is a failure to comply with:

(a) The requirements for treatment or the standards of performance specified in NAC 445A.520, 445A.521 or 445A.526; or

(b) The monitoring requirements specified in NAC 445A.527.

3. The notification required by:

(a) Subsection 1, and paragraph (a) of subsection 2 must be given in the manner required for violations of techniques of treatment as set forth in subsection 1 of NAC 445A.485; and

(b) Paragraph (b) of subsection 2 must be given in accordance with the general requirements for notification set forth in subsection 1 of NAC 445A.485.

4. If there is a failure to comply with the requirements set forth in paragraph (a) of subsection 2, the notice must include the following language:

> The health division of the department of human resources sets standards for drinking water and has determined that the presence of microbiological contaminants in water is a health concern at certain levels of exposure. If water is treated inadequately, microbiological contaminants in that water may cause disease. Symptoms may include diarrhea, cramps, nausea and jaundice, and any associated headaches and fatigue. These symptoms, however, are not only associated with disease-causing organisms in drinking water but also may be caused by a number of factors other than your drinking water. The United States Environmental Protection Agency has set standards for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water that is treated to meet these standards is associated with little to none of this risk and should be considered safe.

(Added to NAC by Bd. of Health, eff. 11-29-90; A by R088-00, 8-3-2001)

Certification of Laboratories to Analyze Drinking Water

NAC 445A.542 Definitions. (NRS 439.200, 445A.863) As used in NAC 445A.542 to 445A.54296, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.5421 to 445A.5425, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5421 "Accuracy" defined. (NRS 439.200, 445A.863) "Accuracy" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54212 "Analyst" defined. (NRS 439.200, 445A.863) "Analyst" means a chemist, microbiologist, physicist or technician who:

1. Is qualified to conduct analyses of environmental samples pursuant to the provisions of the manual specified in subsection 6 of NAC 445A.54254; and

2. Performs those tests or assists in performing those tests with other qualified employees of a certified laboratory.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54214 "Analyte" defined. (NRS 439.200, 445A.863) "Analyte" means any compound, element, radical, isotope, contaminant organism, species or other substance for which an environmental sample is tested by a laboratory.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54216 "Approved method of testing" defined. (NRS 439.200, 445A.863) "Approved method of testing" means a laboratory procedure specified in subsection 4 of NAC 445A.54264 that is approved by the Environmental Protection Agency or the bureau to test an environmental sample.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54218 "Board" defined. (NRS 439.200, 445A.863) "Board" means the state board of health.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5422 "Bureau" defined. (NRS 439.200, 445A.863) "Bureau" means the bureau of licensure and certification of the health division of the department of human resources.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54222 "Certified laboratory" defined. (NRS 439.200, 445A.863) "Certified laboratory" means a laboratory for which a certificate to conduct analyses of drinking water is issued pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54224 "Director" defined. (NRS 439.200, 445A.863) "Director" means:

1. A person who is qualified to administer any technical or scientific operation of a certified laboratory and supervise the procedures for the testing and reporting of the results of tests pursuant to the provisions of the standards; or
2. A chemist, microbiologist or physicist who is qualified to engage in an activity specified in subsection 1 pursuant to the provisions of the manual specified in subsection 6 of NAC 445A.54254.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54226 "Environmental sample" defined. (NRS 439.200, 445A.863) "Environmental sample" means a sample of any substance obtained from any natural source or any source that may reasonably be expected to pollute or receive pollution from the atmosphere, supplies of drinking water, ground water, surface water, soil, sediment or ecosystem biota of this state, including, without limitation:

1. Ambient air;
2. Emissions of air from point sources;
3. Drinking water;
4. Receiving waters;
5. Soil or sediment;
6. Effluents from industrial, municipal or residential sources;
7. Samples from facilities used to store or handle chemicals;
8. Facilities used to dispose of waste;
9. Runoff of surface water; and
10. Samples obtained from facilities used to handle or apply substances for the control of weeds or insects.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54228 "Federal Act" defined. (NRS 439.200, 445A.863) "Federal Act" has the meaning ascribed to it in NRS 445A.815.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5423 "National Environmental Laboratory Accreditation Conference" defined. (NRS 439.200, 445A.863) "National Environmental Laboratory Accreditation Conference" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54232 "Performance-based measurement system" defined. (NRS 439.200, 445A.863) "Performance-based measurement system" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54234 "Point source" defined. (NRS 439.200, 445A.863) "Point source" has the meaning ascribed to it in NRS 445A.395.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54236 "Precision" defined. (NRS 439.200, 445A.863) "Precision" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54238 "Proficiency test sample" defined. (NRS 439.200, 445A.863) "Proficiency test sample" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5424 "Proficiency testing program" defined. (NRS 439.200, 445A.863) "Proficiency testing program" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54242 "Quality control sample" defined. (NRS 439.200, 445A.863) "Quality control sample" means an uncontaminated environmental sample that is spiked with a known analyte and provided to a laboratory for analysis to determine the performance of the laboratory in testing for the presence of that analyte by using a specified method of testing for the analyte.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54244 "Quality manual" defined. (NRS 439.200, 445A.863) "Quality manual" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54246 "Sensitivity" defined. (NRS 439.200, 445A.863) "Sensitivity" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54248 "Spike" defined. (NRS 439.200, 445A.863) "Spike" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5425 "Standards" defined. (NRS 439.200, 445A.863) "Standards" means the standards of the National Environmental Laboratory Accreditation Conference adopted by reference pursuant to the provisions of NAC 445A.54252.
(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54252 Adoption by reference of *National Environmental Laboratory Accreditation Conference-Constitution, Bylaws and Standards*. (NRS 439.200, 445A.863) The board hereby adopts by reference the *National Environmental Laboratory Accreditation Conference-Constitution, Bylaws and Standards*, EPA 600/R-98/151, in the form most recently published by the Environmental Protection Agency, unless the board gives notice pursuant to the provisions of NAC 445A.5426 that the most recent publication is not suitable for this state. The publication is available, free of charge, from the United States Environmental Protection

Agency, Office of Research and Development, 401 M Street, S.W., Washington, D.C. 20460, or from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/ttn/nelac**>.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54254 Adoption by reference of certain publications related to sample collection procedures, analytical methodologies and requirements of certification. (NRS 439.200, 445A.863) The board hereby adopts by reference the following publications in the forms most recently published, unless the board gives notice pursuant to the provisions of NAC 445A.5426 that the most recent publication is not suitable for this state. The publications are available, unless otherwise specified in this section, by mail from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, or by telephone at (800) 553-6847. The publications may also be obtained from the National Technical Information Service at the Internet address <**http://www.ntis.gov/support/ordering.htm**>. The publications are:

1. *Consensus Method for Determining Groundwaters under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA)*, EPA 910/9-92-029, Order Number PB93-180818, for the price of $31.50.
2. *DBP/ICR Analytical Methods Manual*, EPA 814-B-96-002, Order Number PB96-157516, for the price of $45.
3. *ICR Microbial Laboratory Manual*, April 1996, EPA 600/R-95/178, Order Number PB96-157557, for the price of $63.
4. *ICR Sampling Manual*, April 1996, EPA 814-B-96-001, Order Number PB96-157508, for the price of $45.
5. *Interim Radiochemical Methodology for Drinking Water*, EPA/600/4-75-008, Order Number PB253258, for the price of $31.50.
6. *Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures, Quality Assurance*, 3rd edition, EPA 815-B-97-001, Order Number PB90-220500, for the price of $36.50.
7. *Method 100.1 - Analytical Method for Determination of Asbestos Fibers in Water*, September 1983, EPA 600/4-83-043, Order Number PB83-260471, for the price of $67.50.
8. *Method 100.2 - Determination of Asbestos Structures over 10 Micrometers in Length in Drinking Water*, June 1994, EPA/600/R-94/134, Order Number PB94-201902, for the price of $28.50.
9. *Method 1613: Tetra-Through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS, Revision B*, October 1994, EPA 821-B-94-005, Order Number PB95-104774, for the price of $34.
10. *Methods for Chemical Analysis of Water and Wastes*, EPA 600/4-79-020, Order Number PB84-128677, for the price of $101.
11. *Methods for the Determination of Inorganic Substances in Environmental Samples*, August 1993, EPA/600/R-93-100, Order Number PB94-120821, for the price of $45.
12. *Methods for the Determination of Metals in Environmental Samples*, EPA/600-4-91/010, Order Number PB91-231498, for the price of $70.
13. *Methods for the Determination of Metals in Environmental Samples, Supplement I*, EPA/600/R-94/111, Order Number PB95-125472, for the price of $63.
14. *Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater, Volume I, Revision 1*, August 1993, EPA-821-R-93-010-A, Order Number PB94-121654, for the price of $133.
15. *Methods for the Determination of Organic Compounds in Drinking Water*, Revised July 1991, EPA/600/4-88/039, Order Number PB91-231480, for the price of $77.50.
16. *Methods for the Determination of Organic Compounds in Drinking Water, Supplement 1*, EPA/600/4-90/020, Order Number PB91-146027, for the price of $58.50.
17. *Methods for the Determination of Organic Compounds in Drinking Water, Supplement 2*, EPA/600/R-92/129, Order Number PB92-207703, for the price of $63.

18. *Methods for the Determination of Organic Compounds in Drinking Water, Supplement 3*, EPA/600/R-95/131, Order Number PB95-261616, for the price of $101.

19. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 4th edition, EPA/600/4-90/027F, Order Number PB94-114733, for the price of $70.

20. *Prescribed Procedures for Measurement of Radioactivity in Drinking Water*, EPA 600/4-80-032, Order Number PB80-224744, for the price of $41.

21. *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms*, 3rd edition, EPA/600/4-91/002, Order Number PB96-141452, for the price of $60.

22. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms*, 2nd edition, EPA/600/4-91-003, Order Number PB96-141445, for the price of $77.

23. *Technical Notes on Drinking Water Methods*, EPA 600/R-94-173, Order Number PB95-104766, for the price of $31.50.

24. *Test Methods for "Escherichia Coli" in Drinking Water: EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure*, EPA/600/4-91/016, Order Number PB91-234591, for the price of $15.

25. *US EPA Contract Laboratory Program - Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration, OLM01.0 (Includes Revisions OLM01.1 through OLM01.8)*, Order Number PB95-963508, for the price of $86.50. The publication is also available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/superfund/programs/clp/prodserv.htm**>.

26. *US EPA Contract Laboratory Program - Statement of Work for Inorganics Analysis - Multi-Media, Multi-Concentration, ILM02.1*, Order Number PB95-963514, for the price of $70. The publication is also available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/superfund/programs/clp/prodserv.htm**>.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54256 Adoption by reference of certain publications related to methods of testing for certain contaminants. (NRS 439.200, 445A.863) The board hereby adopts by reference the following publications in the forms most recently published, unless the board gives notice pursuant to the provisions of NAC 445A.5426 that the most recent publication is not suitable for this state. The publications are available, unless otherwise specified in this section, by mail from the Superintendent of Documents, United States Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954, or by telephone at (202) 512-1800. The publications are:

1. *Method 1600-Membrane Filter Test Method for Enterococci in Water*, May 1997, EPA-821-R-97-004, which is available, free of charge, from the United States Environmental Protection Agency, National Center for Environmental Publications and Information, 11029 Kenwood Road, Building 5, Cincinnati, Ohio 45242.

2. *Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-Polar Material) by Extraction and Gravimetry*, February 1999, EPA-821-R-98-002. The publication is available, free of charge, from the Environmental Protection Agency at the Internet address <**http://www.epa.gov/waterscience/methods/1664f051.html**>.

3. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, 3rd edition, and Updates I, II, IIA, IIB, III and IIIA, Publication Number 955-001-00000-1, for the price of $367. The publication is also available, free of charge, from the United States Government Printing Office at the Internet address <**http://www.epa.gov/epaoswer/hazwaste/test/maina.htm**>.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54258 Adoption of certain ASTM standards and other publications related to calibration and testing laboratories, and examination of water and wastewater. (NRS 439.200, 445A.863) The board hereby adopts by reference the following publications in the forms most recently published unless the Environmental Protection Agency fails to publish notice of its approval of the publication in the Federal Register or the board gives notice pursuant to the provisions of NAC 445A.5426 that the most recent publication is not suitable for this state:

1. *Annual Book of ASTM Standards, Section 5, Petroleum Products, Lubricants, and Fossil Fuels*, which is available from the American Society For Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, for the price of $657.
2. *Annual Book of ASTM Standards, Section 11, Water and Environmental Technology*, which is available from the American Society For Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, for the price of $686.
3. *ISO/IEC Guide 25, General Requirements for the Competence of Calibration and Testing Laboratories*, 1990, which is available from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado 80112, for the price of $76.
4. *Standard Methods for the Examination of Water and Wastewater*, Order Number 10079, which is available from the American Water Works Association, Customer Service, 6666 West Quincy Avenue, Denver, Colorado 80235, for the price of $155 for members and $200 for nonmembers.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5426 Review by board of publications adopted by reference. (NRS 439.200, 445A.863) If any publication adopted by reference pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, is revised, the board may review the revision to determine its suitability for this state. If the board determines that the revision is not suitable for this state, it will hold a public hearing to review its determination and give notice of that hearing within 6 months after the date of the publication of the revision. If, after the hearing, the board does not revise its determination, the board will give notice that the revision is not suitable for this state within 30 days after the hearing. If the board does not give the notice, the revision becomes part of the publication adopted by reference pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54262 Interpretation of provisions; resolution of conflicting requirements. (NRS 439.200, 445A.863)

1. The provisions of NAC 445A.542 to 445A.54296, inclusive, must not be interpreted to circumvent any of those provisions to make them less effective. If more than one interpretation exists for any of those provisions, the more restrictive interpretation applies.
2. If any provision of a publication adopted by reference pursuant to the provisions of NAC 445A.54254, 445A.54256 or 445A.54258 conflicts with any provision of NAC 445A.542 to 445A.54296, inclusive, or with the standards, the provision set forth in NAC 445A.542 to 445A.54296, inclusive, or the standards applies.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54264 Scope of certification. (NRS 439.200, 445A.863)

1. Laboratory testing is the category of testing specified in Figure 1-3 of the standards for which a laboratory may obtain certification pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive.
2. The scientific disciplines within the category of testing specified in subsection 1 for which a laboratory may obtain certification are:
   (a) Chemistry;
   (b) Microbiology; and
   (c) Radiochemistry.

3. A laboratory may obtain certification pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, for any program relating to the analysis of drinking water approved by the Environmental Protection Agency pursuant to the Federal Act.

4. Except as otherwise provided in subsection 5, the approved methods of testing for which a laboratory may obtain certification are set forth in:

(a) 40 C.F.R. §§ 141.21(f), 141.23(k)(1), 141.24(e), 141.25(a) and (b), 141.40(n)(11), 141.74(a), 141.142(b), 141.143(b) and 143.4(b); and

(b) The publications adopted by reference pursuant to the provisions of subsections 1 to 13, inclusive, 15 to 18, inclusive, 20, 23 and 24 of NAC 445A.54254 and subsections 1, 2 and 4 of NAC 445A.54258.

5. A laboratory may obtain certification to use a performance-based measurement system or any other alternative method of testing if the Environmental Protection Agency indicates in the Federal Register that the method of testing is equivalent to an approved method of testing and the laboratory:

(a) Complies with the provisions of subsection 5 of NAC 445A.54268; and

(b) Provides proof and evaluates the performance-based measurement system or any other alternative method of testing in accordance with the provisions of:

(1) Appendix E of chapter 5 of the standards; and

(2) 40 C.F.R. § 141.27.

6. To be certified to conduct an analysis of an analyte using an approved method of testing specified in subsection 4, the analyte must be listed by the bureau in the approved method of testing pursuant to that subsection.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54266 Categories of analytes for which laboratory may be certified. (NRS 439.200, 445A.863) For the purposes of charging and collecting fees and conducting performance evaluations pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, the bureau shall classify each analyte for which a laboratory may be certified into the following categories:

1. Primary inorganic contaminants;
2. Secondary inorganic contaminants;
3. Regulated and unregulated volatile organic contaminants, including, without limitation, vinyl chloride and trihalomethanes;
4. Regulated and unregulated synthetic organic contaminants;
5. Radiochemical contaminants;
6. Individual primary or secondary inorganic contaminants; or
7. Microbiological contaminants.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54268 Requirements for certification in certain areas. (NRS 439.200, 445A.863)

1. To be certified to conduct laboratory testing, a laboratory must comply with the requirements set forth in sections 1.8.3, 4.1.1, 5.0, 5.1 and 5.4 to 5.16, inclusive, of the standards.

2. To be certified in:

(a) Chemistry, a laboratory must comply with the requirements set forth in section 1.8.5 and Appendix D.1 of chapter 5 of the standards;

(b) Microbiology, a laboratory must comply with the requirements set forth in section 1.8.7 and Appendix D.3 of chapter 5 of the standards; or

(c) Radiochemistry, a laboratory must comply with the requirements set forth in section 1.8.8 and Appendix D.4 of chapter 5 of the standards.

3. To be certified pursuant to the program specified in subsection 3 of NAC 445A.54264, a laboratory must comply with the provisions concerning method detection limits, sample containers, holding times, proficiency testing and quality assurance set forth in 40 C.F.R. §§ 141.21(c), 141.21(f), 141.23(k), 141.24(e), 141.24(f)(17), 141.24(f)(20), 141.24(h)(13),

141.24(h)(19), 141.25, 141.30(e), 141.40(g), 141.40(n)(11), 141.40(n)(12), 141.74(a) and 141.89.

4. To be certified for an approved method of testing, a laboratory must comply with the requirements for using that approved method of testing specified in subsection 4 of NAC 445A.54264 and the standards. If a conflict occurs between a provision specified in that subsection and the standards concerning an approved method of testing, the standards apply. If a manufacturer provides instructions for maintaining any equipment used for testing or for ensuring the performance of any test or demonstrating the performance of any system of measurement, the laboratory shall comply with those instructions. If a conflict occurs between a provision of those instructions and a provision specified in subsection 4 of NAC 445A.54264 or the standards, the provisions specified in that subsection or the standards apply.

5. If a laboratory intends to use a performance-based measurement system or any other alternative method of testing, the laboratory shall, before the bureau conducts an inspection of the laboratory pursuant to the provisions of NAC 445A.5428, submit to the bureau a written statement setting forth the performance-based measurement system or other alternative method of testing it intends to use. The bureau may approve the performance-based measurement system or alternative method of testing if, as determined by the bureau:

(a) The system or method is equivalent to or exceeds the approved method of testing for accuracy, precision, completeness and comparability relating to determining compliance with the regulatory concentration levels or system conditions;

(b) An approved method of testing is not available for use by the laboratory to determine the presence of an analyte for which the laboratory requests certification pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive; or

(c) The laboratory obtains approval for the system or method from the Environmental Protection Agency.

6. To be certified to test for a specific analyte using an approved method of testing, a laboratory must comply with the requirements established by the bureau for the approved method of testing and the standards for initial and continuing calibrations of test equipment and demonstrations by analysts of precision, accuracy, sensitivity and low system background for each analyte. If a conflict occurs between the requirements established by the bureau and the standards, the standards apply.

7. As used in this section:

(a) "Holding times" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(b) "Low system background" means an analysis of a method blank that does not yield contamination at a concentration that is greater than the method detection limit.

(c) "Method blank" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(d) "Method detection limit" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(e) "Quality assurance" has the meaning ascribed to it in Appendix B of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5427 Certification by bureau or pursuant to National Environmental Laboratory Accreditation Program. (NRS 439.200, 445A.863)

1. A laboratory may apply for certification by the bureau or certification pursuant to the National Environmental Laboratory Accreditation Program.

2. To obtain certification by the bureau, a laboratory must comply with the provisions of NAC 445A.542 to 445A.54296, inclusive.

3. A laboratory that is certified by the bureau may provide analytical data for an environmental sample originating in this state for each analyte for which the laboratory is certified.

4. To obtain certification pursuant to the National Environmental Laboratory Accreditation Program, a laboratory must:

(a) Comply with the provisions of NAC 445A.542 to 445A.54296, inclusive;

(b) Before obtaining certification pursuant to the program and every 2 years after obtaining the certification, submit to an assessment of the laboratory conducted at the laboratory under the direction of a person who is approved pursuant to the National Environmental Laboratory Accreditation Program; and

(c) Specify in its application for certification at least one approved method of testing and analyte pursuant to the provisions of subsections 4 and 6 of NAC 445A.54264.

5. As used in this section, "National Environmental Laboratory Accreditation Program" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54272 Application for certification. (NRS 439.200, 445A.863)

1. To apply for certification pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, the director of the laboratory for which certification is requested must submit an application to the bureau on a form approved by the bureau. The application must be accompanied by the fees prescribed in NAC 445A.54296 and include the information specified in sections 4.1.7 and 4.1.9 of the standards.

2. The provisions of this section do not require an application and certificate for each building or other portion of a certified laboratory that:

(a) Is operated by the same management, quality manual and quality assurance officer as the certified laboratory;

(b) Uses only methods for which the laboratory is certified;

(c) Does not issue reports directly but forwards data to the certified laboratory for reporting purposes; and

(d) The bureau determines is used to analyze the same environmental samples as the certified laboratory.

As used in this subsection, "quality assurance officer" means the quality assurance officer specified in section 5.4.2 of the standards.

3. The bureau shall not consider an application for certification submitted pursuant to this section to be complete unless:

(a) The laboratory specifies in the application the approved methods of testing in accordance with the provisions of NAC 445A.54264;

(b) The laboratory satisfactorily analyzes proficiency test samples in accordance with the provisions of NAC 445A.54276;

(c) The laboratory adopts a quality manual and submits the manual to the bureau pursuant to the provisions of NAC 445A.54278;

(d) The bureau conducts an inspection of the laboratory for the approved methods of testing and analytes for which the laboratory requests certification pursuant to the provisions of NAC 445A.5428, except that an inspection is not required pursuant to this paragraph if the laboratory has complied with the provisions of NAC 445A.54274;

(e) If the report of an inspection of the laboratory conducted by the bureau includes any deficiency that must be corrected, the laboratory submits to the bureau a written plan to correct the deficiency in accordance with the provisions of subsection 7 of NAC 445A.5428;

(f) The director of the laboratory is qualified for that position pursuant to the provisions of the manual specified in subsection 6 of NAC 445A.54254; and

(g) The applicable fees prescribed in NAC 445A.54296 have been paid.

4. An application for certification shall be deemed withdrawn by the applicant if it is not completed pursuant to the provisions of this section within 1 year after the bureau receives the application. The bureau may extend the period in which an application must be completed pursuant to this subsection if the applicant submits to the bureau a written request for an extension setting forth the reasons for the request.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54274 Acceptance of analysis conducted by laboratory located outside state. (NRS 439.200, 445A.863) The bureau shall accept data relating to the analysis of contaminants regulated pursuant to the provisions of the Federal Act that are submitted from a laboratory located outside this state if:

1. The laboratory has otherwise complied with the requirements set forth in NAC 445A.542 to 445A.54296, inclusive;

2. The laboratory is certified by:

(a) The state where it is located or, if the state where the laboratory is located does not have a program for certifying laboratories for the analysis of drinking water, by any other state that provides those certifications; or

(b) The Environmental Protection Agency;

3. The bureau determines that the state where the laboratory is located:

(a) Has adopted a program for certifying laboratories for the analysis of drinking water that is equivalent to the program for certifying those laboratories adopted by this state; and

(b) Accepts the results of laboratories certified in this state; and

4. The laboratory submits to the bureau a copy of an acceptable report relating to the most recent evaluation conducted at the laboratory by:

(a) The state where the laboratory is certified;

(b) An independent organization that is approved by the bureau to certify laboratories for the analysis of drinking water; or

(c) The Environmental Protection Agency.

The evaluation to which the report relates must be conducted within the 2 years immediately preceding the date of the application for certification of the laboratory.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54276 Participation in proficiency testing program. (NRS 439.200, 445A.863)

1. Each laboratory for which an application for certification is submitted and each certified laboratory must participate in a proficiency testing program. The laboratory must:

(a) Obtain single-blind proficiency test samples from a provider approved by the National Institute of Standards and Technology;

(b) Analyze the proficiency test samples, if available, for each category of certification and analyte that is included in the program; and

(c) Report the results of the analysis to the provider specified in paragraph (a).

If the laboratory is a certified laboratory and if a test will be conducted for each category of certification and analyte for which the laboratory is certified, the certified laboratory must analyze a proficiency test sample pursuant to the program not less than once every 6 months.

2. Each laboratory specified in subsection 1 shall pay the costs of subscribing to a program specified in that subsection.

3. Each laboratory specified in subsection 1 must satisfactorily analyze each analyte that is included in the program specified in subsection 3 of NAC 445A.54264 on two of the most recent three rounds of testing. Each laboratory shall, before obtaining a proficiency test sample pursuant to paragraph (a) of subsection 1, authorize the provider of the proficiency test sample to submit to the bureau the results of any test taken pursuant to the provisions of this section. If the laboratory fails to provide that authorization, the bureau may refuse to consider the results of any test taken pursuant to those provisions.

4. The bureau shall consider the results of any test taken pursuant to this section to be satisfactory if the results are within the limits of acceptance established by the provider of the proficiency test samples in accordance with the provisions of Appendix C of chapter 2 of the standards.

5. If the bureau determines that the results of a test are satisfactory, the laboratory may be certified to use any approved method of testing for each analyte that is satisfactorily analyzed by the laboratory if, as determined by the bureau, data sufficient to validate the use of that method of testing on an annual basis are available. If such data are not available, the bureau shall deny or

revoke the certification for that method of testing. As used in this paragraph, "data sufficient to validate" means performance of an initial demonstration of capability as defined in section 7.2.8 of the manual specified in subsection 6 of NAC 445A.54254.

6. If a certified laboratory fails:

(a) Two rounds of testing pursuant to subsection 3, the bureau shall suspend the certification of that laboratory for each analyte the laboratory failed to analyze during those rounds; or

(b) Three rounds of testing pursuant to subsection 3, the bureau shall revoke the certification of that laboratory for each analyte the laboratory failed to analyze during those rounds.

7. If the bureau suspends the certification of a certified laboratory pursuant to subsection 6 because the laboratory failed two nonconsecutive rounds of testing, the bureau shall reinstate the certification of that laboratory for the method of testing and analyte for which the certification was suspended if the certified laboratory satisfactorily analyzes the analyte in a proficiency test sample that is approved by the bureau.

8. If the bureau suspends the certification of a certified laboratory pursuant to subsection 6 because the laboratory failed to analyze an analyte on two consecutive rounds of testing, the laboratory must satisfactorily analyze the analyte during each of two consecutive rounds of testing conducted after the bureau suspends the certification.

9. If the bureau revokes the certification of a certified laboratory pursuant to subsection 6, the laboratory must:

(a) Analyze satisfactorily the analyte for which the certification was revoked during each of two consecutive rounds of testing conducted after the bureau revoked the certification; and

(b) Reapply for certification and pay the applicable fees pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive.

If a certified laboratory complies with the provisions of this subsection and is otherwise qualified for certification pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, the bureau shall reinstate the certification of the laboratory for each method of testing and analyte for which the laboratory was certified.

10. Each certified laboratory must comply with the requirements concerning enrollment, testing, conduct and participation in the program specified in subsection 1 pursuant to the provisions of sections 2.4, 2.5 and 2.7 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54278 Adoption of quality manual by laboratory; contents. (NRS 439.200, 445A.863)

1. Each laboratory that applies for certification pursuant to NAC 445A.542 to 445A.54296, inclusive, shall adopt a quality manual and comply with the provisions of that manual. The director of the laboratory shall submit the manual to the bureau before the bureau conducts an inspection of the laboratory.

2. Each quality manual specified in subsection 1 must be adopted in accordance with the provisions of section 5.5 of the standards and include, without limitation:

(a) A statement setting forth the requirements of the laboratory for sensitivity, precision and accuracy for each method of testing or analyte for which the laboratory requests certification; and

(b) The policy of the laboratory concerning any unauthorized use of data or fraudulent activity that occurs at the laboratory.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5428 Inspection of laboratory by bureau. (NRS 439.200, 445A.863)

1. The bureau shall conduct an inspection of the premises and operation of each certified laboratory or laboratory for which an application for certification is submitted pursuant to the provisions of NAC 445A.54272. An inspection conducted pursuant to this section must be conducted in accordance with the provisions of sections 3.4 to 3.7, inclusive, of the standards. If a certified laboratory conducts analyses of drinking water, the laboratory must be inspected in accordance with the manual specified in subsection 6 of NAC 445A.54254. A certified

laboratory shall analyze a control sample for each method of testing and analyte for which it is certified:

(a) At least once every 12 months; and

(b) Each time a new calibration curve is generated.

2. The bureau shall conduct an inspection specified in subsection 1:

(a) Not less than once every 2 years, if the laboratory is a certified laboratory; or

(b) If the laboratory submits an application for certification pursuant to the provisions of NAC 445A.54272, not more than 30 days after the bureau determines that the laboratory has complied with the provisions of paragraphs (a), (b) and (c) of subsection 3 of that section.

3. The bureau may conduct an inspection of a laboratory more than once every 2 years pursuant to this section if:

(a) The bureau receives a complaint concerning the quality of the laboratory from a member of the general public or any public agency;

(b) The bureau has reasonable cause to believe the laboratory is engaging in fraudulent activity;

(c) The bureau identifies deficiencies in the operation of the laboratory after conducting an inspection of the laboratory pursuant to this section;

(d) The laboratory notifies the bureau pursuant to NAC 445A.5429 of any changes specified in that section; or

(e) Any circumstance specified in section 3.3 of the standards occurs.

4. An inspection conducted pursuant to the provisions of this section may include, without limitation:

(a) Requiring the laboratory to conduct an analysis of a proficiency test sample; and

(b) Photocopying, photographing or videotaping:

(1) Any part of the laboratory that is used for analyzing samples of drinking water;

(2) Any equipment, activity, environmental sample, records or results of any test relating to the analysis of regulated samples of drinking water;

(3) Any data concerning the control of the quality of any analysis relating to samples of drinking water conducted by the laboratory; and

(4) Any other information required by the bureau to ensure compliance with the provisions of NAC 445A.542 to 445A.54296, inclusive.

5. Except as otherwise provided in this subsection, the bureau shall announce each inspection conducted pursuant to the provisions of this section. The bureau may conduct an unannounced inspection of a laboratory if the bureau determines that such an inspection is required to ensure compliance by the laboratory with the provisions of NAC 445A.542 to 445A.54296, inclusive. In determining whether to conduct an unannounced inspection, the bureau shall consider:

(a) The laboratory's record of compliance with the provisions of NAC 445A.542 to 445A.54296, inclusive;

(b) The results of any proficiency test taken by the laboratory;

(c) The performance of any analyst or other employee of the laboratory in conducting an analysis of an environmental sample pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive;

(d) Any complaints concerning the laboratory that the bureau has received from members of the general public or any public agency; and

(e) The performance of the laboratory in conducting analyses pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive.

6. If the bureau conducts an inspection of a laboratory pursuant to the provisions of this section, the laboratory shall:

(a) Ensure that any record or other information which relates to compliance by the laboratory with the Federal Act or NAC 445A.542 to 445A.54296, inclusive, and which is required by the bureau to conduct the inspection is available for review, including, without limitation:

(1) The quality manual adopted pursuant to the provisions of NAC 445A.54278;

(2) Any information concerning the methods of testing used by the laboratory;

(3) Any data concerning the control of the quality of a regulated analysis conducted by the laboratory; and

(4) Any information concerning any proficiency test taken by the laboratory; and

(b) Allow the bureau to:

(1) Examine any records of the laboratory concerning the operation or certification of the laboratory that relate to compliance by the laboratory with the Federal Act or NAC 445A.542 to 445A.54296, inclusive;

(2) Observe the operation, facilities and equipment of the laboratory that relate to compliance with the Federal Act or NAC 445A.542 to 445A.54296, inclusive;

(3) Interview any employee of the laboratory who performs duties relating to compliance by the laboratory with the Federal Act or NAC 445A.542 to 445A.54296, inclusive; and

(4) Engage in any activity which is necessary and appropriate for determining compliance by the laboratory with the Federal Act or NAC 445A.542 to 445A.54296, inclusive, and which is required by the bureau.

7. If the bureau conducts an inspection of a laboratory, it shall, within 30 days after it conducts the inspection, provide to the laboratory a copy of the report of the inspection. The report must include any deficiency the bureau discovers during its inspection of the laboratory. The laboratory shall prepare a plan to correct the deficiency specified in the report. The plan must:

(a) Be submitted to the bureau not more than 30 days after the laboratory receives the report from the bureau;

(b) Be submitted on a form approved by the bureau; and

(c) Include, without limitation:

(1) The signature of the person who prepared the plan; and

(2) The proposed date by which the laboratory will correct the deficiency.

8. If, after reviewing the plan submitted pursuant to subsection 7, the bureau determines that the plan is insufficient to correct the deficiency, the bureau shall notify the laboratory of that fact in writing. Upon receipt of the written notice, the laboratory shall, not more than 30 days after receiving the notice, submit a revised plan to the bureau. If, after reviewing the revised plan, the bureau determines that the revised plan is insufficient to correct the deficiency, or if the bureau conducts an inspection of the laboratory and determines that the deficiency has not been corrected, the bureau shall deny the laboratory's application for certification or revoke its certification.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54282 Grounds for denial of application for certification, or revocation, suspension or limitation of certification. (NRS 439.200, 445A.863)

1. The bureau may deny an application for certification of a laboratory or revoke, suspend or limit the certification of a certified laboratory if the laboratory:

(a) Makes a false statement in:

(1) An application for certification;

(2) A report concerning the analysis of an environmental sample; or

(3) Any other document relating to certification in violation of the provisions of NAC 445A.542 to 445A.54296, inclusive;

(b) Falsifies the results of any laboratory testing or misrepresents any information obtained from laboratory testing in violation of the provisions of NAC 445A.54268 or 445A.54292;

(c) Fails to maintain the facilities or equipment of the laboratory in accordance with the quality manual or quality system of the laboratory;

(d) Fails to participate satisfactorily in a proficiency testing program, if the program is available, in violation of the provisions of NAC 445A.54276;

(e) Falsely claims certification for a method of testing or an analyte for which the laboratory is not certified in violation of the provisions of NAC 445A.54292;

(f) Fails to prepare a plan of correction or to correct any deficiency specified by the bureau within the period specified in the plan in violation of the provisions of NAC 445A.5428;

(g) Fails to pay any fees or expenses of the bureau in violation of the provisions of NAC 445A.54296;

(h) Fails to notify the bureau of any changes specified in NAC 445A.5429;

(i) Authorizes a person who is not qualified to perform an analysis in violation of the provisions of NAC 445A.54268;

(j) Communicates with or receives a communication concerning the results of a proficiency test sample from a laboratory on or before the date established for submitting the results of that sample to the provider of the sample pursuant to the provisions of NAC 445A.54276;

(k) Knowingly receives a proficiency test sample from a laboratory or provides a proficiency test sample to a laboratory on or before the date specified in paragraph (j);

(l) Prohibits an employee of the bureau from conducting an inspection of the laboratory in violation of the provisions of NAC 445A.5428;

(m) Fails to provide to the bureau any information required by the bureau to determine whether the laboratory is operated in compliance with the provisions of NAC 445A.542 to 445A.54296, inclusive;

(n) Misrepresents any material fact to obtain or maintain certification pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive; or

(o) Engages in any activity that is a ground for the denial of an application for certification or for the suspension or revocation of the certification of a laboratory set forth in section 4.4 of the standards.

2. In determining whether to deny an application for certification or to revoke, suspend or limit the certification of a laboratory pursuant to this section, the bureau shall consider:

(a) The gravity of the violation;

(b) The harm to the health and safety of the members of the general public;

(c) The intent of the person who committed the violation;

(d) The extent of the violation; and

(e) Any proposed correction of the violation.

3. As used in this section:

(a) "Protocol" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(b) "Quality system" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54284 Reapplication after denial of application or revocation of certification. (NRS 439.200, 445A.863) If the bureau denies an application for certification of a laboratory or revokes the certification of a certified laboratory, the laboratory may, after the period specified in section 4.4 of the standards has expired, reapply for certification in the manner prescribed in NAC 445A.54272.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54286 Renewal of certification. (NRS 439.200, 445A.863)

1. The bureau may renew the certificate of a certified laboratory if:

(a) The laboratory pays the applicable fee to renew the certificate;

(b) The laboratory submits a statement on a form approved by the bureau indicating that it is in compliance with the provisions of NAC 445A.542 to 445A.54296, inclusive, concerning each category of testing, method of testing and analyte for which it is certified;

(c) The laboratory submits a report to the bureau indicating that it has received satisfactory proficiency test results for each category of testing and analyte for which it is certified; and

(d) The bureau determines that the laboratory is in compliance with the provisions of NAC 445A.542 to 445A.54296, inclusive.

2. A certificate issued to a laboratory pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, expires on July 31 of each year. If the certificate of a certified laboratory expires, the laboratory may reapply for certification in the manner prescribed in NAC 445A.54272.

3. Not later than July 1 of each year, the bureau shall mail to each certified laboratory a notice for the renewal of the certificate and a form to provide a statement of compliance specified in paragraph (b) of subsection 1.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54288 Display and contents of certificate. (NRS 439.200, 445A.863)

1. The director of the laboratory shall display the certificate issued by the bureau in a conspicuous place in the laboratory to which the members of the general public have access.

2. A certificate:

(a) Must include a statement indicating each category of testing and analyte for which the laboratory is certified; and

(b) Is the property of the bureau and must be surrendered to the bureau if:

(1) The bureau revokes the certificate;

(2) The laboratory for which the certificate is issued ceases to conduct analyses of drinking water for which a certificate is required; or

(3) The bureau ceases to be an accrediting authority approved by the Environmental Protection Agency. As used in this subparagraph, "accrediting authority" has the meaning ascribed to it in Appendix B of chapter 5 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.5429 Notification of bureau of certain changes concerning certified laboratory. (NRS 439.200, 445A.863) If, as determined by the bureau, a change concerning a certified laboratory occurs which substantially affects the ability of the laboratory to perform any analysis for which the laboratory is certified, the director of the laboratory shall, not more than 30 days after the change occurs, notify the bureau of that change in writing. For the purposes of this section, a change includes, without limitation, a change in the name, ownership, location or personnel of a laboratory or any other change specified in sections 4.1.8 and 4.3.2 of the standards.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54292 Contractual agreements, records and reports. (NRS 439.200, 445A.863)

1. A certified laboratory shall ensure that each analysis it performs complies with the provisions of Appendix D of chapter 5 of the standards.

2. A certified laboratory shall maintain any document or other information required by the provisions of section 4.3.3 of the standards in accordance with the provisions of that section.

3. If a certified laboratory prepares a report of any test conducted pursuant to the provisions of this section, the report must be prepared in accordance with the provisions of section 5.13 of the standards.

4. If a certified laboratory is not certified to conduct a test in a category of testing or to use a method of testing or test for an analyte pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive, the director of the laboratory may contract with a certified laboratory to perform that test if:

(a) Before entering into the contract, the director notifies in writing the person for whom the test will be conducted of his intent to enter into the contract; and

(b) The laboratory complies with NAC 445A.542 to 445A.54296, inclusive, or the requirements specified in section 5.14 of the standards.

5. If a certified laboratory contracts with another certified laboratory pursuant to the provisions of this section, the director of the certified laboratory shall ensure that the certified laboratory that will conduct the test is certified pursuant to the provisions of NAC 445A.542 to 445A.54296, inclusive. If the certified laboratory that offered the contract maintains any record of the contract or of any test conducted pursuant to the contract, it shall include in that record:

(a) Any report submitted by the certified laboratory that conducted the test concerning the results of the test conducted pursuant to the contract; and

(b) The certification number of the certified laboratory that conducted the test.

6. If the certified laboratory that offered the contract prepares a report concerning the results of any test conducted pursuant to the contract, it shall specify in the report that the results of the test were obtained by contract pursuant to the provisions of this section.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54294 Issuance of emergency order. (NRS 439.200, 445A.863)

1. If the bureau determines that any facility, equipment, operation or other condition of a certified laboratory requires immediate action to protect the health and safety of the members of the general public and the bureau receives the approval of the administrator of the health division of the department of human resources, the bureau may, without notice or hearing, issue an emergency order:

(a) Suspending the certification of the laboratory; and

(b) Requiring the person to whom the bureau issues the order to correct the condition for which the emergency order is issued.

2. An emergency order is effective upon issuance and is not subject to review unless, within 30 days after the date the order is served, the person to whom the bureau issues the order petitions for a hearing before the board.

3. The board shall continue, modify or revoke the emergency order within 30 days after it conducts the hearing required by the provisions of subsection 2.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

NAC 445A.54296 Fees. (NRS 439.200, 445A.863)

1. Each application for:

(a) Chemistry certification must include a fee of $500.

(b) Microbiology certification must include a fee of $600.

2. In addition to the fees specified in subsection 1, the bureau shall charge and collect the following fees:

For an application to renew certification..... $500
Initial fee or annual renewal fee for certification to analyze primary inorganic contaminants..... 545
Initial fee or annual renewal fee for certification to analyze secondary inorganic contaminants..... 545
Initial fee or annual renewal fee for certification to analyze regulated and unregulated volatile organic contaminants, including trihalomethanes and vinyl chloride..... 545
Initial fee or annual renewal fee for certification to analyze regulated and unregulated synthetic organic contaminants 1,090
Initial fee or annual renewal fee for certification to analyze radiochemical contaminants..... 545
Annual renewal fee for certification to analyze specific primary or secondary inorganic contaminants, or both 200
Annual renewal fee for microbiology certification 600

3. The initial or annual renewal fee for certification to analyze any chemical contaminant not set forth in subsection 2 is $400, plus the per diem allowance and travel expenses provided for state officers and employees generally for each person who conducts an inspection that is required for certification of the laboratory.

4. If an application for certification to test for an analyte is received during the fiscal year, the fees for that certification must be prorated by using the following formula:

Fee x .083 x the number of months remaining in the fiscal year.

The month in which the application is submitted must not be counted as a month remaining in the fiscal year. The prorated fee must be rounded to the next highest dollar. The fee for submitting an application for certification to test for an analyte must not be prorated.

5. In addition to any fees paid by a laboratory located outside this state, each such laboratory shall pay to the bureau the costs incurred by the bureau to conduct an inspection of the laboratory.

6. A fee for certification to analyze a specific contaminant must be paid before a certificate may be issued.

7. Any fee paid pursuant to the provisions of this section is nonrefundable.

(Added to NAC by Bd. of Health by R203-99, eff. 8-1-2001)

Bottled Water

NAC 445A.544 Definitions. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880) As used in NAC 445A.544 to 445A.590, inclusive, unless the context otherwise requires:

1. "Bottled water" means water which may or may not be treated and is sealed in a bottle, package or other container, properly labeled and offered for sale as water for drinking. The term includes mineral water.

2. "Health division" means the health division of the department of human resources.

3. "Mineral water" means bottled water which is:

(a) Produced from a source which is approved by the health authority; and

(b) Tapped at one or more boreholes or natural springs.

4. "Nontoxic material" means material which:

(a) Is used for surfaces which come in contact with the water used in the transporting, processing, storing and packaging of bottled water; and

(b) Does not contain substances which may render the water injurious to health or which may adversely affect the flavor, color, odor or bacteriological quality of the water.

5. "Operator" means the operator of a plant.

6. "Plant" means a facility in which water is:

(a) Processed for the market by treatment;

(b) Bottled; or

(c) Treated and bottled.

7. "Public water system" has the meaning ascribed to it in NRS 445A.840.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94; 10-30-97)

NAC 445A.545 Permit required to operate plant. No person may operate a plant in the State of Nevada without a permit issued by the health authority.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.272)

NAC 445A.546 Submission of plans, specifications for approval of construction or remodeling.

1. Before an operator begins to construct or extensively remodel a plant, he shall submit properly prepared plans and specifications for that construction or remodeling to the appropriate health authority for its approval.

2. The plans and specifications must show:

(a) The proposed layout of the plant;

(b) The proposed layout of the processing, bottling and storage areas;

(c) The proposed size, type and arrangement of the equipment to be used in those areas; and

(d) The materials proposed for use in the construction of those areas.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.274)

NAC 445A.5465 Requirements for construction, design and maintenance of plant.

1. The structures and buildings of a plant must be suitable in size, construction and design to ensure adequate maintenance and sanitary operations for the treatment and bottling of water.

2. The floors, walls and ceilings of a plant must be:
(a) In good repair;
(b) Smooth;
(c) Light in color;
(d) Nonabsorbent; and
(e) Easily cleanable.
3. The working space of a plant must be adequate to prevent contamination of water and surfaces which come in contact with water.
4. All surfaces in the plant which do not come into contact with water must be kept free of accumulated dust, dirt and other debris.
5. The lighting in the rooms of a plant where equipment is cleaned and water is processed must be:
(a) At least equal to 50 foot-candles; and
(b) Equipped with safety bulbs or shields.
6. The lighting in locker rooms, toilet rooms and handwashing areas of a plant must be at least equal to 20 foot-candles.
7. The grounds of a plant must be maintained in a neat and sanitary condition with adequate drainage and dust control.
(Added to NAC by Bd. of Health, eff. 9-15-94)

NAC 445A.547 Permit required for distribution of water bottled outside Nevada.
1. No bottled water produced in a plant located outside of this state may be sold or distributed within this state unless the operator or distributor has obtained a permit issued by the appropriate health authority.
2. An applicant for such a permit must submit with his application:
(a) A copy of the document which records the approval of the source of water by the health authority which has jurisdiction;
(b) A copy of the permit issued to the applicant by the state or country in which his plant is located;
(c) A report by the applicant regarding his past compliance with the applicable regulations on the quality and sampling of the water he produced or distributed;
(d) A copy of each type of label which will be displayed with the bottled water distributed in this state;
(e) A copy of the most recent analysis conducted pursuant to:
(1) Paragraph (b) of subsection 1 of NAC 445A.555; and
(2) Paragraph (c) of subsection 1 of NAC 445A.555; and
(f) Copies of the three most recent analyses conducted pursuant to paragraph (a) of subsection 1 of NAC 445A.555.
(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.548 Quality of water used for bottling; inspections; sampling. All water used for bottling must be:
1. Obtained from a source which has been developed in a safe and sanitary manner;
2. Inspected regularly, in accordance with the regulations of the state board of health on the supply of potable water; and
3. Sampled, analyzed and found to comply with the standards set forth in NAC 445A.550 to 445A.554, inclusive.
(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.5485 Requirements for flavor added to bottled water. If bottled water contains added flavor, it must:
1. Be prepared with added flavors derived from spices or fruits which consist of less than 1 percent of the weight of the water; and

2. Not contain any additives other than those additives that comply with the requirement set forth in subsection 1.

(Added to NAC by Bd. of Health, eff. 9-15-94)

NAC 445A.549 Methods used to determine compliance with standards.

1. The board adopts by reference the *Standard Methods for the Examination of Water and Wastewater*, 18th edition, 1992, published by the American Public Health Association. This publication may be obtained from the American Public Health Association, 1015 18th Street, N.W., Washington, D.C. 20036, for the price of $50 a copy.

2. Any analysis conducted to determine compliance with the standards set forth in NAC 445A.550, 445A.551 and 445A.569 must be made in accordance with the applicable methods described in the publication adopted in subsection 1.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.550 Standards for bottled water: Coliform organisms.

1. When bottled water is delivered to a customer, it must not contain any coliform bacteria and must be examined by using one of the following methods:

(a) The method of multiple-tube fermentation;

(b) The method which uses a membrane filter; or

(c) The MMO-MUG test.

2. If any method described in subsection 1 indicates the presence of coliform bacteria, the lot of water tested must be resampled. If the resampling confirms the presence of coliform bacteria, the water must be recalled by the operator. The resampling must occur within 1 working day.

3. As used in this section, MMO-MUG test means a minimal medium ONPG-MUG test approved by the United States Environmental Protection Agency to determine the presence or absence of fecal coliform bacteria and Escherichia coli.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.551 Standards for bottled water: Physical quality. Bottled water upon its delivery to a customer must, when a composite of analytical units of equal volume is examined by the method described in the applicable sections of *Standard Methods for the Examination of Water and Wastewater*, meet the following standards of physical quality:

1. The turbidity must not exceed 5 units;
2. The color must not exceed 15 units; and
3. The odor must not exceed threshold odor number 3.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.284)

NAC 445A.552 Standards for bottled water: Chemical and organic substances. When bottled water, other than mineral water, is delivered to a customer or placed in a vending machine, each liter of water must:

1. Not contain more than 500 milligrams of dissolved solids;
2. Not contain more than 7 million fibers longer than 10 micrometers of asbestos;
3. Have a pH within the range of 6.5 to 8.5; and
4. Not contain any of the following chemical substances in excess of the milligrams per liter listed:

INORGANIC CHEMICALS

Aluminum	0.20
Antimony	0.006
Arsenic	0.05
Barium	1.00
Beryllium	0.004

INORGANIC CHEMICALS

Cadmium	0.005
Chloride	250.00
Chromium	0.05
Copper	1.00
Cyanide	0.20
Iron	0.30
Lead	0.05
Magnesium	150.00
Manganese	0.05
Mercury	0.002
Methylene blue active substances	0.50
Nickel	0.10
Nitrate as (N)	10.00
Nitrite as (N)	1.00
Total nitrate and nitrite as (N)	10.00
Selenium	0.01
Silver	0.05
Sulfate	250.00
Zinc	5.00

CHLORINATED ORGANIC CHEMICALS

Endrin	0.002
Total Trihalomethanes	0.10

VOLATILE ORGANIC COMPOUNDS

Benzene	0.005
Carbon tetrachloride	0.005
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
Trichloroethylene	0.005
1,1,1-Trichloroethane	0.20
Dichloromethane	0.005
Vinyl chloride	0.002
p-Dichlorobenzene	0.075
o-Dichlorobenzene	0.60
1,2-Dichloropropane	0.005
cis-1,2-Dichloroethylene	0.07
trans-1,2-Dichloroethylene	0.10
Ethylbenzene	0.70
Monochlorobenzene	0.10
Styrene	0.10
Toluene	1.00
1,2,4-Trichlorobenzene	0.07
1,1,2-Trichloroethane	0.005
Tetrachloroethylene	0.005
Xylenes	10.00

SYNTHETIC ORGANIC COMPOUNDS

Alachlor	0.002

SYNTHETIC ORGANIC COMPOUNDS

Aldicarb	0.003
Aldicarb sulfoxide	0.004
Aldicarb sulfone	0.002
Atrazine	0.003
Benzo(a)pyrene	0.0002
Carbofuran	0.04
Chlordane	0.002
Dalapon	0.20
Decachlorabiphenyl	0.0005
Di(2-ethylhexyl)adipate	0.40
Di(2-ethylhexyl)phthalate	0.006
Dibromochloropropane	0.0002
Dinoseb	0.007
Dioxin	0.00000003
Diquat	0.02
2,4-D	0.07
Endothall	0.10
Ethylene dibromide	0.00005
Glyphosphate	0.70
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002
Methoxychlor	0.04
Oxamyl	0.20
Picloram	0.50
Polychlorinated biphenyls	0.0005
Pentachlorophenol	0.001
Simazine	0.004
Toxaphene	0.003
2,4,5-TP	0.05

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.553 Standards for bottled water: Fluoride. Bottled water which contains natural or added fluoride must contain not less than 0.8 milligrams of fluoride per liter and not more than 2 milligrams of fluoride per liter.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.554 Standards for bottled water: Radioactive elements. When bottled water is delivered to a customer or placed in a vending machine, the water must not contain:

1. A combined radium-226 and radium-228 activity in excess of 5 picocuries per liter of water;
2. A gross alpha particle activity (including radium-226, but excluding radon and uranium) in excess of 15 picocuries per liter of water; or
3. Radioactivity emitted from gross beta particles in excess of 50 picocuries per liter of water.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.555 Analysis required of representative samples.

1. The operator shall:

(a) At least weekly, analyze the coliform bacteria in a representative sample from a batch of each type of water produced during the period covered by the analysis.

(b) At least annually, analyze a representative sample from a batch of each type of water produced for its compliance with the requirements set forth in NAC 445A.552 and 445A.553.

(c) At least once every 4 years, analyze a representative sample from a batch of each type of water produced to determine whether the water complies with the requirements set forth in NAC 445A.554.

2. A laboratory certified by the board pursuant to this chapter must conduct the analyses set forth in subsection 1. The operator shall maintain records of:

(a) The date of each sampling;

(b) The product which was sampled;

(c) The code of the sample; and

(d) The results of each analysis.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.556 Labeling requirements.

1. Each operator shall submit his proposed label for each type of bottled water he sells or distributes in this state to the appropriate health authority for its approval before the label is used.

2. The label must contain:

(a) The name and location of the bottling company;

(b) The number of the permit issued to the operator or distributor by the health authority;

(c) The source of the water, if not processed;

(d) For demineralized or distilled water, the method of purification used;

(e) The date the water was bottled, expressed in code or otherwise; and

(f) If the water has been treated, a statement of the substances added. If it is not possible to include the statement on the label of a returnable bottle, the statement must be included on the back of the receipt which is given to the customer.

3. If the water is mineral water:

(a) It must be plainly labeled as such; and

(b) In addition to the requirements of subsection 2, the label must list the results of the chemical analysis of the water which:

(1) Has been filed with the appropriate health authority; and

(2) Shows the type and amount of any mineral present in the water which is in excess of the state requirements for potable water, including a listing for sodium if the water contains more than 200 milligrams per liter.

4. Bottled water containing a substance in an amount which is considered injurious to health is deemed to be adulterated whether or not the bottled water bears a statement on its label of the substandard quality.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.5565 Types of bottled water.

1. Bottled water may be labeled and sold as:

(a) Distilled water, if it is demineralized by distillation and complies with the requirements for purified water set forth in the *United States Pharmacopeia*, XXII, which is hereby adopted by reference. A copy of the *United States Pharmacopeia* may be obtained from the USP Order Processing Department, 12601 Twinbrook Parkway, Rockville, Maryland 20852, for the price of $350.

(b) Drinking water, if it is filtered and disinfected by a process approved by the health authority.

(c) Mineral water, if it is clearly distinguishable from other types of water by its specific content of minerals and trace elements which remain constant at the water's point of emergence. The total dissolved solids present in mineral water must appear on the label of the bottle and be

stated in milligrams per liter. The boreholes or springs from which mineral water is produced must originate from an underground source which is geologically and physically protected from contamination.

(d) Natural water, if it is produced from a well or an artesian well and no minerals have been added or removed from the water. Natural water may be filtered and must be disinfected by a process approved by the health authority. Natural water may be labeled as natural artesian water or natural well water.

(e) Purified water, if it is demineralized by distillation, deionization or reverse osmosis and complies with the requirements for purified water set forth in the *United States Pharmacopeia*, XXII.

(f) Spring water, if it is produced from a point at the surface where the water flows naturally from an underground formation or through a borehole adjacent to that point in a manner approved by the health authority.

2. Bottled water that is produced from a public water system must be labeled and sold as municipal water. Bottled water that is produced from a public water system may be sold and labeled as:

(a) Distilled water, if it complies with the requirements set forth in paragraph (a) of subsection 1.

(b) Drinking water, if it complies with the requirements set forth in paragraph (b) of subsection 1.

(c) Purified water, if it complies with the requirements set forth in paragraph (e) of subsection 1.

3. As used in this section:

(a) "Artesian well" means a well which produces water by tapping a confined aquifer in which the water stands above the water table.

(b) "Well" means the point at which water is taken from the ground through drilling and casing.

(Added to NAC by Bd. of Health, eff. 9-15-94)

NAC 445A.557 Treatment and sampling of water before bottling; inspection of equipment.

1. The treatment of water before bottling, whether the treatment is by distillation, filtration, exposure to ultraviolet light, reverse osmosis, carbonation, ozonization, addition of minerals or any other process, must be performed in and by equipment and with substances which will not adulterate the bottled product.

2. The operator must keep a record of:

(a) The type and date of each inspection of the equipment;

(b) The results of the inspection; and

(c) The performance and effectiveness of the equipment.

3. Samples of the water must be taken at the plant after the water is treated and before it is bottled. The samples must be analyzed as often as is necessary to ensure the uniformity and effectiveness of the treatment. The methods used to analyze the water must be approved by the appropriate health authority.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.558 Storing, cleaning and sanitizing containers and closures.

1. Each single service container and closure for the processed water must be purchased and stored in a clean and dry place until it is used. Before the container or closure is used, it must be examined and, if necessary, cleaned, sanitized and inspected immediately before it is filled, capped and sealed. A container or closure which is found to be unsanitary or defective must be reprocessed or discarded.

2. Each reusable container must be washed, rinsed and sanitized by a mechanical washer or by another method which gives adequate sanitary results. The operator shall inspect his

mechanical washers as often as is necessary to ensure their adequate performance. The operator shall maintain a record which shows:

(a) The maintenance of each washer;

(b) The type, date and results of each inspection; and

(c) The performance of each washer.

3. The operator shall maintain each shipping case in a manner which will ensure that it will not contaminate the final container or its water. The operator shall clean each shipping case as often as is necessary to maintain it in a sanitary condition.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.559 Minimum requirements for sanitization.

1. The operator shall sanitize all equipment, containers and other surfaces which come into contact with processed water.

2. The operator shall maintain a record of the intensity of the sanitizing agent used and the length of time during which the agent was in contact with the surface being sanitized.

3. The minimum requirements regarding the intensity of the sanitizing agent used and the time the agent must be in contact with the surfaces which are required to be sanitized are:

(a) If the sanitization is by steam or hot water in an enclosed system, exposure to 170°F for 15 minutes or 200°F for 5 minutes.

(b) If the sanitization is by immersion or circulation in a chemical solution, the solution must be equivalent in bactericidal action to a 2-minute exposure of 50 milligrams per liter of available chlorine at 57°F.

(c) If the sanitization is by chemicals which are applied as a spray or fog, the chemicals must be equivalent in bactericidal action to a 2-minute exposure of 100 milligrams per liter of available chlorine at 57°F.

(d) If the sanitization is by immersion in a solution of 0.1 mg/l ozone water in an enclosed system, exposure for 5 minutes.

4. When a container is sanitized with a substance other than one listed in 21 C.F.R. § 178.1010, as that provision existed on April 1, 1993, the substance must be removed from the surface of the container in the final rinse before the container is filled with the treated water. The rinse must consist of water which is free of pathogenic bacteria or sanitized by one of the methods listed in subsection 3.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.560 Testing required for cleaning and sanitizing solutions. The operator shall test the cleaning and sanitizing solutions used at the plant as often as is necessary to ensure their adequacy. The operator shall maintain a record of these tests.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.302)

NAC 445A.561 Cleaning and sanitizing of facilities and equipment; requirements for tanker vehicles.

1. The operator shall keep the:

(a) Facilities where the processed water is loaded and unloaded; and

(b) Motor vehicles and other equipment which are used to transport the water,

clean and sanitary at all times.

2. A tanker vehicle which was previously used to transport a toxic material, petroleum product or any other deleterious substance must not be used to transport processed water.

3. At least weekly, the interior of a tank of a tanker vehicle which is to be used to transport treated water must be:

(a) Cleaned;

(b) Flushed with potable water;

(c) Sanitized with a solution consisting of at least 100 milligrams of chlorine per liter of water for at least 20 minutes, or other means approved by the health authority;

(d) Rinsed with potable water; and

(e) Immediately closed, until the tank arrives at the place where it is to be filled.

4. The fittings of the riser where the tanker vehicle is loaded, the connections, discharge end and filling end of the hose and the connections from the tank to the tanker vehicle must be sanitized with a solution of chlorine which is at least 3 ounces of 5 1/4 percent household bleach without additives to 2 gallons of water.

5. If the tank of a tanker vehicle is lined with an interior coating, the coating must consist of nontoxic materials and be approved by the health authority.

6. All parts of a tanker vehicle and any fittings used to discharge the treated water must be easily accessible for cleaning. Intake or discharge pumps must not be located on the tanker vehicle.

7. A chlorine residual of at least 0.50 parts per million or an ozone residual of 0.10 parts per million must be maintained in the water during its transportation. The residual must be tested when the water is delivered at the bottling plant before it is discharged.

8. A tanker vehicle must be equipped with:

(a) A bottom drain that will drain completely;

(b) A lid and cover for the dome of the tanker vehicle which is gasketed, kept closed when not in use and equipped with a security lock;

(c) Filling and drain fittings which are capped when not in use;

(d) Air vents for the tank which are turned downward, filtered and screened; and

(e) Strips, or any other material approved by the health authority, which are used to test the chlorine or ozone residual pursuant to subsection 7.

9. The operator shall ensure that the driver of a tanker vehicle maintains a record of:

(a) The dates the chlorine or ozone residual is tested pursuant to subsection 7;

(b) The amount of chlorine or ozone residual tested pursuant to subsection 7;

(c) The source of the water;

(d) The point of delivery of the water;

(e) The quantity of water transported; and

(f) The dates the tanker vehicle is cleaned and sanitized pursuant to subsection 3.

10. A tanker vehicle must be filled:

(a) In a manner which ensures the prevention of the backflow of water into the supply system; and

(b) By a hose which is connected directly to the source and the tanker vehicle.

11. A pump for transferring water between a tanker vehicle and a plant must be of a type that is easily disassembled. Surfaces of the pump which come into contact with water must be smooth, nonporous, resistant to corrosion and made from nontoxic materials.

12. Water must not be stored in a tanker vehicle for more than 7 days.

13. Each hose which is used to transfer water must be equipped with caps that fit over each end and are threaded or clamped. Each end of a hose used to transfer water must be capped when not in use.

14. Each tanker vehicle must be permanently identified with the name, city and state of the owner of the tanker vehicle on each door of the vehicle or each side of the tank.

15. As used in this section, "tanker vehicle" means a motor vehicle which is equipped with a tank used to transport water.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.562 Identifying code; required records.

1. The operator shall mark each package of bottled water with a code. The code must identify the particular batch of water from which it came and the day on which it was produced.

2. The operator shall keep and maintain records regarding:

(a) The kind of product;

(b) The volume which was produced;

(c) The date it was produced;
(d) The codes used; and
(e) The distribution of the bottled water to wholesale and retail outlets.
(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.306)

NAC 445A.563 Inspection of containers and closures; requirements for disposable containers and closures.

1. During the filling, capping and sealing of the water containers, the operator shall watch the performance of the filler, capper and sealer to ensure that the filling, capping and sealing is performed in a sanitary manner. The operator shall visually or electrically inspect each filled container to ensure that it is sound, properly capped or sealed, coded and labeled. A container which is found to be unsatisfactory must be reprocessed or discarded.

2. The operator shall not use containers and closures which will render the water injurious to health or which will adversely affect the flavor, color, odor or bacteriological quality of the water. The operator shall inspect each container and closure to ascertain whether it is free from visual contamination.

3. Except as otherwise provided in subsection 4, at least once every 3 months, a bacteriological examination must be made from four containers and closures selected just before they are to be filled and sealed. At least three of the four samples must not contain more than one bacteria per milliliter of capacity as tested by the rinse method or one colony per square centimeter of the surface area as tested by the swab method. Each sample must not contain any coliform organisms. The procedures and apparatus for these tests must conform to those set forth in the *Standard Methods for the Examination of Dairy Products*, 16th Edition, 1992, which is hereby adopted by reference. A copy of the publication may be obtained from the American Public Health Association, 1015 15th Street NW, Washington, D.C. 20005, at a price of $50. The tests must be performed by a qualified employee at the plant or at a laboratory certified by the board pursuant to this chapter.

4. If an operator purchases disposable containers and closures from a manufacturer listed in the Sanitation Compliance and Enforcement Ratings of Interstate Milk Shippers, he is not required to comply with the requirements of subsection 3. The Sanitation Compliance and Enforcement Ratings of Interstate Milk Shippers, as those ratings existed on July 1, 1994, are hereby adopted by reference. A copy of those ratings may be obtained from the United States Food and Drug Administration Milk Safety Branch, HFS-626, 200 C Street, Washington, D.C. 20204, at no charge.

5. If the publication adopted pursuant to subsection 4 is revised, the administrator of the health division shall review the revision to determine its suitability for this state. If the administrator of the health division determines that the revision is not suitable for this state, he shall give notice within 30 days after the effective date of the revision. If the administrator of the health division does not give notice within 30 days, the revision becomes part of the publication adopted by reference pursuant to subsection 4.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.564 Separation of bottling rooms from other operations. The bottling room must be separated from other operations and storage areas by tight walls, ceilings and self-closing doors, unless the bottles are washed and filled within a machine that provides a filtered and positive flow of air which prohibits exposure of the bottles to air outside the machine. The opening in the room for any conveyor must not exceed the size which is required to permit passage of the containers.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.565 Prevention of contamination of the water. If the treatment of the water is conducted in other than a sealed system which is under pressure, the operator shall provide adequate protection to preclude contamination of the water and the system.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.312)

NAC 445A.566 Ventilation. The operator shall provide ventilation which is adequate in the processing rooms, bottling rooms and in the areas in which the containers are washed and sanitized to prevent condensation and contamination of the bottled water.
(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.567 Washing and sanitizing operations. The operator shall wash and sanitize the containers in an enclosed room. The washing and sanitizing operation must be positioned within the room so as to minimize any possible contamination of the containers after they have been sanitized and before they enter the bottling room. Open containers which have been sanitized must be protected from contamination.
(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.568 Separation of certain rooms from those used for domestic purposes. The rooms in which processed water is handled or stored and the rooms in which containers, utensils or equipment are washed or stored must not open directly into any room which is used for domestic purposes.
(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.318)

NAC 445A.569 Sources of water used in plants.
1. Each plant's supply of:
(a) Water which is to be processed; and
(b) Water which is used to operate the plant,
must be from an approved source which is:
(1) Properly located, protected and operated;
(2) Easily accessible;
(3) Of an adequate amount; and
(4) Of a safe and sanitary quality which conforms with the applicable laws and regulations of the health authority.
2. The operator shall have the source of the water used in his plant analyzed pursuant to NAC 445A.555, unless the source is a public water system. If the water is from a source other than a public water system, the operator shall analyze it for microbiological contaminants at least once each week. These analyses must be performed by a laboratory certified by the board pursuant to this chapter and are in addition to any performed by the health authority.
3. The operator shall maintain at the plant a record of the approval of the operator's analyses by the health authority.
(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.570 Suitability of equipment and utensils; construction of surfaces contacting processed water; standards for equipment; requirements for storage tanks.
1. All equipment and utensils used in the plant must be suitable for their intended use.
2. All surfaces which come in contact with the processed water must be:
(a) Constructed of nontoxic and nonabsorbent material so that they can be adequately cleaned and sanitized; and
(b) Kept free of accumulated dust, dirt and other debris.
3. All equipment which is installed in a plant after October 1, 1994, must comply with the applicable standards of the National Sanitation Foundation as those standards existed on July 1, 1994. If there is not an applicable standard of the National Sanitation Foundation for a type of equipment, the equipment must be approved by the health authority. The applicable standards of the National Sanitation Foundation are hereby adopted by reference. A copy of those standards may be obtained from the National Sanitation Foundation, P.O. Box 13040, Ann Arbor, Michigan 48113-0140, at the following prices:
(a) Standard No. 44 Caltron Exchange Water Softeners, $20.
(b) Standard No. 51 Plastic Materials and Components Used in Food Equipment, $30.
(c) Standard No. 55 Ultraviolet Microbiological Water Treatment Systems, $30.

(d) Standard No. 58 Reverse Osmosis Drinking Water Treatment Systems, $20.
(e) Standard No. 60 Drinking Water Treatment Chemicals—Health Effects, $45.
(f) Standard No. 61 Drinking Water System Components—Health Effects, $45.
(g) Standard No. 62 Drinking Water Distillation Systems, $20.

4. All storage tanks must be kept closed to prevent contamination. A vent on a storage tank must be filtered with a filter that is easily cleanable or replaceable.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.571 Quality of pressurized air used during processing or which contacts water. Pressurized air which is directed at processed water or at a surface which comes into contact with the water must be free of oil, dust, rust, excessive moisture and extraneous materials. The air must not affect the bacteriological quality of the water and must not adversely affect the flavor, color or odor of the water.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.324)

NAC 445A.572 Lockers and lunchrooms; storage of personal items.

1. If an operator provides lockers or lunchrooms for his employees, these facilities must be separate from the processing and storage areas and must be equipped with self-closing doors. The operator must maintain the lunchrooms and rooms which contain the lockers in a clean and sanitary condition and provide containers for refuse in the rooms. The operator must not store packaging or wrapping material or other processing supplies in those rooms.

2. The operator shall ensure that clothing or other personal items are stored in areas other than those areas where water is processed, treated or bottled or equipment or utensils are washed.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.573 Sewage disposal. The operator shall dispose of the plant's sewage through:

1. Public sewerage; or

2. A system of sewage disposal which is constructed and operated in conformance with applicable laws, ordinances and regulations and is approved by the health authority.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.574 Piping and draining.

1. The piping for the water which is used in the operation of the plant must not be directly connected with any supply of nonpotable water. The piping for any nonpotable water must be adequately and durably identified as such by, for example, the use of distinctive yellow paint. The piping which carries nonpotable water must not be connected to equipment in the bottling and processing areas or have an outlet in those areas.

2. The piping which carries potable water must be installed in such a manner as to preclude the possibility of back siphonage.

3. A pipe for the disposal of sewage must not be installed over:

(a) The areas in which the water is processed or stored; and

(b) The areas in which the equipment and containers are cleaned,

unless there is a nonpermeable ceiling which separates the pipe and those areas.

4. There may be no direct connection between the sewerage and any drains originating from equipment in which portable equipment or utensils are placed.

5. Drain lines from equipment must not be permitted to discharge wastewater in a manner that will flood or flow across a floor of the plant.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.575 Toilet rooms.

1. Toilets must be conveniently located within the same building as the plant and must be accessible to employees at all times. The toilet rooms must be completely enclosed and must have tight-fitting, self-closing doors. The doors must not:

(a) Be left open except during cleaning or maintenance; or
(b) Open directly into a processing and bottling area or an area where equipment is washed.
2. The operator shall install an exhaust fan which is vented to the outside of the plant in each toilet room he constructs after October 1, 1994.
3. The operator shall keep the toilet room and its fixtures clean, in good repair and free of objectionable odors.
4. The operator shall provide a supply of toilet tissue at each toilet at all times.
5. The operator shall provide easily cleanable receptacles for waste materials. Such a receptacle in a toilet room for women must be covered. The receptacles must be emptied at least once a day and more frequently when necessary to prevent the excessive accumulation of waste material.
(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.576 Lavatories.
1. The operator shall provide a lavatory which is located within or immediately adjacent to all toilet rooms. In each plant which is constructed or extensively altered after October 14, 1982, a lavatory must also be located within the processing area. The lavatories must be adequate in size and number and located so as to permit convenient and expeditious use by all employees.
2. Every lavatory must be provided with hot and cold or warm running water. Where hot and cold running water is provided, there must also be a mixing valve or combination faucet in any lavatory constructed after October 14, 1982. A sign which reminds employees to wash their hands must be posted near each lavatory.
3. The operator shall provide an adequate supply of hand soap or detergent for each lavatory. The operator shall provide an adequate supply of sanitary towels or an approved hand-drying device, which must be located near the lavatory. The use of common towels is prohibited. Where disposable towels are provided, waste receptacles must be located nearby.
4. The operator shall keep each lavatory, soap dispenser, hand-drying device and other components of the hand-washing facility clean and in good repair.
(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.334)

NAC 445A.577 Storage, disposal of garbage.
1. The operator shall store all garbage and rubbish so that it is inaccessible to vermin. The storage facilities must be adequate. The operator shall keep them clean and shall not permit them to constitute a nuisance.
2. The storage rooms or enclosures must be constructed of easily cleanable materials. The floors and the walls, at least to the level reached by splash or spray, must be made of relatively nonabsorbent materials. Any containers for garbage which are kept outside the storage facility must be stored on a concrete slab or on a rack which is, for a single bank of containers, at least 12 inches above the ground and, for a multiple bank of containers, 18 inches above the ground.
3. The operator shall dispose of the plant's garbage and rubbish daily, or at such other intervals as may be approved by the health authority. He shall do so in such a manner as to prevent a nuisance.
(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.336)

NAC 445A.5775 Storage of toxic materials in plant prohibited.
1. The operator shall ensure that no toxic materials are stored in the plant except those toxic materials which are used to clean and sanitize the plant. The toxic materials must be clearly identified on their containers and used as directed.
2. As used in this section, "toxic materials" has the meaning ascribed to it in NAC 445A.110.
(Added to NAC by Bd. of Health, eff. 9-15-94)

NAC 445A.578 Vermin. The operator shall use effective measures to minimize the presence of vermin on the premises. The operator shall keep the premises in a condition which prevents the entrance, harborage and feeding of vermin. The operator may use pesticides and rodenticides only as approved by the health authority.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.338)

NAC 445A.579 Flying insects.

1. The operator shall protect all openings in the plant to the outer air against the entrance of flying insects. He shall use self-closing doors, closed windows, screening, controlled air currents or other effective means.
2. Any screening used must be not less than 16-mesh or its equivalent. Screen doors to the outer air must be self-closing. Screens for windows, doors, skylights, transoms and any other openings to the outer air must fit tightly and be free of breaks.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.340)

NAC 445A.580 Animals prohibited in facility. No animals are allowed in any area or facility used in connection with the treatment or bottling of water.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.342)

NAC 445A.581 Inspection of surfaces and equipment which contact treated water. The operator shall have all pipes, containers and other equipment inspected to determine the condition of surfaces which come into contact with treated water. The inspections must be made as often as necessary to maintain the sanitary condition of those surfaces and to ensure that they are kept free of oxidation, scale and any other residue. The operator shall immediately correct any unsanitary condition and shall remove any scale, residue or oxidation by cleaning and sanitizing the affected surface before it is used again.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.344)

NAC 445A.582 Transportation, storage of sanitized containers and equipment. After any reusable container, utensil, disassembled piping or equipment is cleaned and sanitized, it must be transported and stored in such a manner as to allow it to drain and ensure that it is protected from contamination.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.346)

NAC 445A.583 Storage tanks. The tanks used for storing the treated water must be of a type that can be:

1. Closed to exclude all foreign matter and are adequately vented; or
2. Pressurized and are of adequate design.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.348)

NAC 445A.5835 Training of employees.

1. An operator shall ensure that the employees of the plant comply with the provisions of this chapter.
2. An operator must have knowledge of and enforce the provisions of NAC 445A.544 to 445A.590, inclusive.
3. An operator shall ensure that the employees of his plant receive training concerning the provisions of NAC 445A.544 to 445A.590, inclusive.

(Added to NAC by Bd. of Health, eff. 9-15-94)

NAC 445A.584 Employees with communicable diseases.

1. No person who:

(a) Is affected with a communicable disease or is a carrier of such a disease; or

(b) Is afflicted with boils, an infected wound or an acute respiratory infection,

may work in a plant in any area or capacity in which there is a likelihood of his transmitting the disease to other persons through direct contact or through contamination of the water.

2. The operator shall notify the health authority whenever he knows or suspects that an employee at his plant has a communicable disease.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.350)

NAC 445A.585 Employees required to wash their hands. Each employee who handles the processed water or any surface which contacts the water shall thoroughly wash his hands and arms with soap and warm water:

1. Before starting work;
2. After visiting the toilet room; and
3. During work hours as often as may be required to remove soil and contamination.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.352)

NAC 445A.586 Cleanliness of employees' outer garments; confinement of employees' hair.

1. The outer garments of all employees must be reasonably clean.

2. Each employee engaged in the processing of water shall confine his hair. An employee whose hair extends below his collar shall confine his hair with a hair net. The hair must be kept neat and clean. Sideburns, beards and mustaches must be closely cropped and well groomed.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.354)

NAC 445A.587 Expectoration, use of tobacco, eating or drinking prohibited; personal cleanliness required.

1. Employees shall not use tobacco in any form or eat or drink while in the areas used to bottle water or wash equipment and utensils.

2. Employees shall maintain a high degree of personal cleanliness during all working periods.

3. Expectoration is prohibited in any area or facility used in connection with the treatment or bottling of water.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.588 Retention and submission of records, reports and analyses.

1. The operator shall keep for not less than 5 years the records which are required in NAC 445A.555, 445A.557 to 445A.560, inclusive, 445A.562 and 445A.569. The records must be available for inspection by the health division of the department of human resources or the appropriate health authority upon reasonable request.

2. Upon the request of the health authority, the operator shall submit to the health authority monthly reports on:

(a) The total monthly production;

(b) The results of the analyses performed pursuant to paragraph (a) of subsection 1 of NAC 445A.555;

(c) The result of the analysis of the source water performed pursuant to NAC 445A.569; and

(d) The result of the analysis of the sanitation solutions performed pursuant to NAC 445A.560.

The reports must be submitted on forms approved by the health authority.

3. Upon the request of the health authority, the operator shall submit to the health authority an annual report on the results of the analyses performed pursuant to paragraph (b) of subsection 1 of NAC 445A.555.

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.589 Fees. The health division shall charge and collect the following fees:

For an annual permit to operate a plant	$100
To review plans for constructing a plant	100
To review plans for remodeling a permitted plant	50

(Added to NAC by Bd. of Health, eff. 10-14-82; A 9-15-94)

NAC 445A.5893 Orders for corrective action. If the health authority finds a condition in the operation of a plant which constitutes a hazard to public health, he may issue a written order to the operator concerning that condition. The order must describe the condition and specify the corrective action to be taken and the period within which the action must be taken.
(Added to NAC by Bd. of Health, eff. 9-15-94)

NAC 445A.5895 Denial, modification, suspension or revocation of permit: Grounds; written notice. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)
1. The health authority may deny an application for or order the modification, suspension or revocation of a permit to operate a plant on any of the following grounds:
(a) The existence of a substantial health hazard, as determined by the health authority;
(b) The failure or refusal of the applicant for or holder of a permit to comply with any provision of chapter 445A of NRS or NAC 445A.544 to 445A.590, inclusive;
(c) Operating a plant without a permit; or
(d) The interference with the health authority in the performance of his duties.
The suspension of the permit will remain in effect until the health authority determines that the violation is corrected.
2. The health authority shall send written notice of the denial of an application for or the modification, suspension or revocation of a permit to operate a plant to the operator pursuant to the requirements set forth in NAC 439.300 to 439.395, inclusive.
3. As used in this section, "substantial health hazard" means a condition in a plant that constitutes a hazard to public health, including, but not limited to:
(a) Sewage or liquid wastes that are not disposed of in a manner which is approved by the health authority.
(b) The employment of a person by an operator if the operator knows that the employee has a communicable disease and allows him to work in an area where water is treated or bottled.
(Added to NAC by Bd. of Health, eff. 9-15-94; A 10-30-97)

NAC 445A.5898 Procedure for review of actions taken by health division; appeals. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)
1. A person who has reason to believe that an action taken by the health division pursuant to NAC 445A.544 to 445A.590, inclusive, is incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee.
2. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the bureau, except that the informal conference must be held no later than 60 days after the date on which the bureau received the written request.
3. Except as otherwise provided in subsection 4, the determination of the bureau resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.
4. An applicant for or holder of a permit issued pursuant to NAC 445A.544 to 445A.590, inclusive, who is aggrieved by an action of the health division relating to the denial of an application for or renewal of such a permit or the suspension or revocation of such a permit may

appeal that action in accordance with NAC 439.300 to 439.395, inclusive, after exhausting the informal procedures set forth in this section, except that the bureau may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.

5. As used in this section, "bureau" means the bureau of health protection services of the health division of the department of human resources or its successor.

(Added to NAC by Bd. of Health, eff. 10-30-97)

NAC 445A.590 Severability. If any provision of NAC 445A.544 to 445A.590, inclusive, or any application thereof to any person, thing or circumstance is held invalid, the state board of health intends that such invalidity not affect the remaining provisions or applications to the extent that they can be given effect.

(Added to NAC by Bd. of Health, eff. 10-14-82)—(Substituted in revision for NAC 445.362)

Operation of Community Water System or Nontransient Water System

NAC 445A.591 Definitions. (NRS 439.200, 445A.860) As used in NAC 445A.591 to 445A.5926, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.5911 to 445A.592, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5911 "Bureau" defined. (NRS 439.200, 445A.860) "Bureau" means the bureau of health protection services of the health division.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5912 "Community water system" defined. (NRS 439.200, 445A.860) "Community water system" has the meaning ascribed to it in NRS 445A.808.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5913 "Financial capability" defined. (NRS 439.200, 445A.860) "Financial capability" has the meaning ascribed to it in NRS 445A.817.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5914 "Health division" defined. (NRS 439.200, 445A.860) "Health division" means the health division of the department of human resources.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5915 "Managerial capability" defined. (NRS 439.200, 445A.860) "Managerial capability" has the meaning ascribed to it in NRS 445A.827.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5916 "Nontransient water system" defined. (NRS 439.200, 445A.860) "Nontransient water system" has the meaning ascribed to it in NRS 445A.829.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5917 "Plan" defined. (NRS 439.200, 445A.860) "Plan" means the plan prepared by a supplier of water that is submitted to and approved by the health division in accordance with the provisions of NAC 445A.591 to 445A.5926, inclusive.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5918 "Service connection" defined. (NRS 439.200, 445A.860) "Service connection" has the meaning ascribed to it in NRS 445A.843.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5919 "Supplier of water" defined. (NRS 439.200, 445A.860) "Supplier of water" has the meaning ascribed to it in NAC 445A.6648.
(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.592 "Technical capability" defined. (NRS 439.200, 445A.860) "Technical capability" has the meaning ascribed to it in NRS 445A.847.
(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5921 Submission of plan; approval of plan required before issuance of permit. (NRS 439.200, 445A.860)
1. Each supplier of water who intends to begin operation of a community water system or nontransient water system on or after October 1, 1999, must, before beginning operation of the water system, submit a plan to the health division for its approval.
2. The health division shall not issue a permit to a supplier of water to operate a community water system or nontransient water system specified in subsection 1 unless it has approved a plan for the system pursuant to the provisions of NAC 445A.591 to 445A.5926, inclusive.
(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5922 Contents of plan. (NRS 439.200, 445A.860) A plan submitted pursuant to the provisions of NAC 445A.5921 must include:
1. A description of the community water system or nontransient water system that includes, without limitation:
(a) A legal description of the proposed area of service for the system, including, without limitation, a map indicating the layout of the system and the township, range and section in which the system is located;
(b) The purpose of the system and a plan to resolve any problems that may arise concerning the operation of the system;
(c) A program for the control of cross-connections established in accordance with the provisions of NAC 445A.67185;
(d) A plan for the restoration of services of the system in an emergency established in accordance with the provisions of NAC 445A.66665;
(e) A manual of operations and maintenance prepared in accordance with the provisions of NAC 445A.6667;
(f) If applicable, the type of water treatment that will be used by the system pursuant to the provisions of NAC 445A.495 to 445A.540, inclusive; and
(g) Any unique characteristics of the area of service or the system;
2. An analysis of the managerial capability of the system, including, without limitation:
(a) The name, address and telephone number of each owner, manager or operator of the system;
(b) The name, address and telephone number of the person to notify in case of an emergency concerning the system;
(c) The classification of each operator of the system;
(d) The organization, bylaws and policies of the system;
(e) The manner in which the system will bill and correspond or otherwise communicate with its customers; and
(f) An evaluation of each position of employment required to manage, operate or maintain the system, including, without limitation, a description of:
(1) The responsibilities of each person who is employed in each of those positions; and
(2) Each position of employment that is responsible for:
(I) Monitoring federal and state laws and regulations;
(II) Determining whether a federal or state law or regulation applies to the management, operation or maintenance of the system; and
(III) Determining the cost to the system to comply with a federal or state law or regulation that applies to the management, operation or maintenance of the system;

3. Information concerning planning for the system, including:

(a) The estimated population that will be served by the system;

(b) The number of service connections that will be included in the system;

(c) The estimated amount of water required for the system;

(d) A description of the customers who will be served by the system; and

(e) An estimate of the proposed use of the property of the system for 20 years, set forth in periods of 5 years;

4. An analysis of the technical capability of the system, including without limitation:

(a) The standards for the design, construction, operation and maintenance of the system that comply with the provisions of NAC 445A.65505 to NAC 445A.6731, inclusive, and, if applicable, the provisions of NAC 445A.495 to NAC 445A.540, inclusive;

(b) An analysis of a sample of water from a source of water that will be used by the system which is prepared in accordance with the provisions of NAC 445A.450 to 445A.652, inclusive; and

(c) A description and analysis of the inventory of the system;

5. An analysis of the water resources of the system, including:

(a) A plan of water conservation developed in accordance with the provisions of NRS 540.121 to 540.151, inclusive, or NRS 704.662, 704.6622 and 704.6624, if applicable, and an analysis of the effectiveness of the plan if water meters are used;

(b) A description of the estimated amount of water required for the system for 5 years after the system begins operation;

(c) A demonstration of the ownership of or right to appropriate an amount of water that is sufficient to satisfy the requirements of the system for 5 years after the system begins operation, including, without limitation, a list specifying:

(1) Any vested water right obtained by the system; or

(2) Any right to appropriate water pursuant to a permit issued by the state engineer;

(d) An analysis of the effect, if any, on the system if a nonresidential user decides not to continue to use the services of the system; and

(e) A plan for responding to any shortage of water that may occur in the system within 5 years after the system begins operation;

6. An analysis of any other sources of water available to the system, including:

(a) A description of each of those sources of water;

(b) The identification of the community water system or nontransient water system that is located nearest to the system;

(c) A plan to obtain support for the operation or maintenance of the system from any other community water system or nontransient water system;

(d) Any connection that is available to the system from any other community water system or nontransient water system; and

(e) If the supplier of water specifies in the plan any other source of water for use by the system, the reasons for specifying that source of water;

7. A program of capital improvements for the system, including a schedule to carry out the program that includes:

(a) Documents that identify any projects required by the system to begin or maintain the operation of the system and the reasons for each of those projects;

(b) A schedule that ranks the projects in order of priority;

(c) A list of any costs incurred by the system for each of those projects; and

(d) Each source of money or financing required for each of those projects;

8. A demonstration of the financial capability of the system, including:

(a) An operating budget for the system for 5 years after the system begins operation that includes a demonstration of the ability of the system to expend money for emergency improvements, capital improvements and normal operation and maintenance of the system;

(b) An evaluation of the rate structure and connection fees of the system;

(c) An evaluation of the total cost of providing service to the customers of the system;

(d) An evaluation of the manner in which the total cost set forth in paragraph (c) will be recovered by the system; and

(e) An evaluation of the stability of the cash flow of the system;

9. Information concerning any legal matters relating to the system, including:

(a) A plan to operate the system if the system is declared bankrupt or is placed in receivership;

(b) The ownership of any real property of the system and any buildings located on that property;

(c) Any right-of-way, easement or restrictive covenant obtained by the system or which applies to the system; and

(d) Any contract to which the system is a party or which applies to the system;

10. A statement that specifies any federal, state or local governmental entity that may adopt regulations concerning the operation of the system or enforce any law or regulation that applies to the system; and

11. Any other information the health division may require to review and approve the plan.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5923 Period for submission of revision of plan; amendment to plan. (NRS 439.200, 445A.860)

1. Except as otherwise provided in subsection 2, if a plan is submitted by a supplier of water and approved by the health division pursuant to the provisions of NAC 445A.591 to 445A.5926, inclusive, the supplier of water shall, every 5 years after the plan is approved, revise the plan and submit it to the health division for its approval.

2. If the health division determines that minor revisions to the plan submitted for approval pursuant to this section are required, the supplier of water may, in lieu of providing a revised plan, submit to the health division an amendment to the plan.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5924 Maintenance and availability of plan or amendment to plan. (NRS 439.200, 445A.860) A copy of each plan or amendment to a plan that is approved by the health division pursuant to the provisions of NAC 445A.591 to 445A.5926, inclusive, must be:

1. Maintained in each business office of the community water system or nontransient water system for which the plan was approved; and

2. Available for inspection by the health division upon request.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5925 Inclusion of report or other information in plan. (NRS 439.200, 445A.860)

1. If a supplier of water submits a report or other information concerning a community water system or nontransient water system to an agency of this state or any political subdivision or local government of this state that contains information that is required to be included in a plan pursuant to NAC 445A.591 to 445A.5926, inclusive, the supplier of water may include the report or other information in the plan.

2. If a report or other information is included in a plan pursuant to the provisions of subsection 1, the health division may consider the report or other information for its review and approval of the plan.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

NAC 445A.5926 Procedure for review of actions taken by health division. (NRS 439.200, 445A.860)

1. If a supplier of water submits a plan pursuant to the provisions of NAC 445A.591 to 445A.5926, inclusive, and, after submitting the plan, has reasonable cause to believe that an action taken by an employee of the bureau concerning the plan is erroneous or based on inadequate knowledge, the supplier of water may, not more than 10 business days after the

supplier of water receives notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of that employee.

2. Except as otherwise provided in this subsection, if the health division receives a request pursuant to subsection 1, the health division shall schedule an informal discussion concerning the action for which the request was submitted at a date, place and time that is agreed upon by the bureau and the supplier of water. The informal discussion must be held not later than 30 days after the health division receives the request.

3. If an informal discussion is conducted pursuant to subsection 2 and the action for which the informal discussion was conducted is not resolved, the supplier of water may, not more than 10 business days after the informal discussion, submit a written request to the bureau for an informal conference concerning the request. Except as otherwise provided in this subsection, if the bureau receives such a request, the bureau shall schedule the informal conference at a date, place and time that is agreed upon by the bureau and the supplier of water. The informal conference must be held not more than 60 days after the bureau receives the written request.

4. If an informal conference is held pursuant to subsection 3, any determination of the bureau resulting from the informal conference may not be appealed and is the final remedy for the supplier of water who requested the conference.

(Added to NAC by Bd. of Health by R073-99, eff. 9-27-99)

Permits to Operate Privately Owned Systems

NAC 445A.595 Definitions. As used in NAC 445A.595 to 445A.614, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.596 to 445A.601, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.363)

NAC 445A.596 "Health division" defined. "Health division" means the health division of the department of human resources.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3631)

NAC 445A.597 "Local governing body" defined. "Local governing body" means:

1. The local legislative or governing body of an incorporated city if all or any part of the area to be serviced by the water system is located within the limits of such incorporated city.

2. The board of county commissioners if the entire area to be serviced by the water system is located within the unincorporated area of the county.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3632)

NAC 445A.598 "Operator" defined. "Operator" has the meaning ascribed to it in NRS 445A.830.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3633)

NAC 445A.599 "Public water system" defined. "Public water system" has the meaning ascribed to it in NRS 445A.840.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3634)

NAC 445A.600 "State engineer" defined. "State engineer" means the state engineer or any duly authorized assistant.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3635)

NAC 445A.601 "Water system" defined. "Water system" has the meaning ascribed to it in NRS 445A.850.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3636)

NAC 445A.602 Requirement for permit. A person shall not operate a water system unless he has a valid permit to operate the water system issued pursuant to NRS 445A.885 and NAC 445A.603 to 445A.614, inclusive.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3637)

NAC 445A.603 Application for permit: Form; conference with chief of bureau of health protection services.

1. The owner of a water system or his designated agent may apply for a permit to operate a water system on an application form provided by the health division.

2. Before filing an application, the owner of a water system or his designated agent may request a conference with the chief of the bureau of health protection services of the health division or a person designated by the chief. The applicant, members of the local governing body, employees of the public utilities commission of Nevada and the state engineer may attend the conference.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3638)

NAC 445A.604 Application for permit: Submission; required fee and documents.

1. An applicant for a permit to operate a water system shall submit four copies of a completed application form to the health division.

2. An application must be accompanied by:

(a) An application fee of $500.

(b) The financial information required by NAC 445A.605.

(c) Evidence that the conditions prescribed by subsections 1 and 4 of NRS 445A.895 have been met.

(d) The names, addresses and qualifications of each person or entity who will be responsible for the operation, maintenance or management of the water system, including:

(1) The technical background or experience of each person or entity;

(2) The classification and type of certificate issued to the operator pursuant to NAC 445A.617 to 445A.652, inclusive, if applicable; and

(3) A list of the professional water industry organizations in which each person or entity is a member.

(e) A description of any governing board of the water system.

(f) A plan for the operation, maintenance and management of the water system, including:

(1) A program for the control of cross-connections;

(2) The procedures, methods, schedules and locations for production metering, testing pressure and testing customer's meters, if any; and

(3) A program for testing the quality of the water to ensure compliance with the provisions of NAC 445A.450 to 445A.492, inclusive.

(g) A plan for a sanitary survey to evaluate past and present sources of pollution which might affect the quality of the water system's source of water, including sanitary sewage, landfills, salt storage and commercial or industrial facilities which might affect the quality of the water system's source of water.

(h) A plan for action and proper notification of authorities in the event of a hurricane, typhoon, tornado, storm, flood, high water, wind-driven water, earthquake, volcanic eruption, landslide, mud slide, snowstorm, drought, fire, explosion, electrical outage, attack, sabotage or toxic spill or other spill that could pose a health hazard.

(i) Information from the state engineer regarding water rights affecting the water system, the status of such water rights and the source of the water.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3639)

NAC 445A.605 Application for permit: Required financial information.

1. An applicant for a permit to operate a water system shall submit the following financial information with his application for a permit:

(a) A copy of a budget which projects for 12 months, the fixed and operating expenses of the water system, including taxes, depreciation and emergency reserves for the area to be serviced by the water system.

(b) A description of the source of financial resources that will be used to pay for:

(1) The daily operations of the water system, including the costs of monitoring the system; and

(2) Any anticipated capital improvements.

(c) An estimate of the itemized costs of the construction of any water facilities.

(d) A statement of the rates to be charged for services rendered by the water system.

(e) An estimate of the number of service connections to be used in the water system, the number of customers to be served and the annual revenue to be received from the customers.

2. As used in this section, service connection means a service pipe from the water main to a primary residence, meter set or curb stop.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 9-15-94)

NAC 445A.606 Application for permit: Solicitation and consideration of written comments.

1. The health division shall:

(a) Submit a copy of each completed application that it receives pursuant to NAC 445A.604 to the public utilities commission of Nevada, the state engineer and the local governing body; and

(b) Request written comments regarding the application from the public utilities commission of Nevada, the state engineer and the local governing body.

2. For the health division to consider fully written comments from the public utilities commission of Nevada or the state engineer, the health division must receive the comments within 30 calendar days after the date the public utilities commission of Nevada or the state engineer received the application. The health division shall furnish copies of any written comments from the public utilities commission of Nevada or the state engineer to the local governing body.

3. For the health division to consider fully written comments from the local governing body, the health division must receive the comments within 60 calendar days after the date the local governing body received the application.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3641)

NAC 445A.607 Conditions for issuance of permit: Interpretation of certain statutory terms. For the purposes of NRS 445A.895:

1. "Available" means:

(a) In sufficient supply of water and storage facilities to accommodate the anticipated demand; and

(b) From a supplier who has issued a letter stating that it will service the anticipated demand.

2. "Satisfactorily serving the needs of its users" means providing service which is in compliance with NAC 278.410, 445A.450 to 445A.492, inclusive, and 445A.65505 to 445A.6731, inclusive.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 2-20-97)

NAC 445A.608 Conditions for issuance of permit: Assumption by local governing body of certain responsibilities and duties. The health division shall not issue a permit to operate a water system unless the local governing body submits:

1. A resolution;

2. A copy of the minutes of a public meeting; or

3. Other written documentation,

which sufficiently demonstrates that the local governing body assumes the responsibilities and duties specified in subsection 4 of NRS 445A.895.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3643)

NAC 445A.609 Conditions for issuance of permit: Payment of fees. The health division shall not issue a permit to operate a water system unless:

1. The fee for an annual permit to operate a public water system has been paid as set forth in paragraph (b) of subsection 1 of NAC 445A.6664; and

2. The fee for a review of an application for a permit to construct, remodel or expand a public water system has been paid as set forth in paragraph (a) of subsection 1 of NAC 445A.6664.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3644)

NAC 445A.610 Contents of permit. A permit to operate a water system must require the owner and operator to:

1. Comply with the provisions of NRS 445A.800 to 445A.955, inclusive.

2. Comply with the provisions of NAC 445A.450 to 445A.492, inclusive, 445A.595 to 445A.614, inclusive, and 445A.65505 to 445A.6731, inclusive.

3. Report any changes in operations, ownership, facilities, maintenance or management to the health division.

4. Comply with any other limitations or conditions placed on the owner or operator by the health division.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 2-20-97)

NAC 445A.611 Notification of limitations or conditions on permit; public inspection of application for permit. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)

1. If a permit to operate a water system is issued to an applicant, the health division shall notify the applicant in writing of any limitations or conditions placed on the owner or operator of the water system pursuant to subsection 4 of NAC 445A.610. A copy of the notice must be attached to the permit.

2. All applications for permits and copies of permits issued are public records and may be inspected by any person during the regular office hours of the health division.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 10-30-97)

NAC 445A.612 Denial, modification, suspension or revocation of permit: Grounds; notice. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)

1. The health division may deny an application for or modify, suspend or revoke a permit to operate a water system on any of the following grounds:

(a) A violation of a condition or limitation placed on the permit pursuant to subsection 4 of NAC 445A.610.

(b) A misrepresentation of a relevant fact or a failure to disclose fully all relevant facts in obtaining the permit.

(c) A failure or refusal of the applicant for or holder of a permit to comply with any provision of NAC 445A.595 to 445A.614, inclusive.

(d) Operating a water system without a permit.

(e) Interference with the health division in the performance of its duties.

2. The health division shall:

(a) Immediately notify the local governing body when a permit is revoked.

(b) Send written notice of the denial of an application for or the modification, suspension or revocation of a permit to operate a water system pursuant to the requirements set forth in NAC 439.300 to 439.395, inclusive.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 10-30-97)

NAC 445A.613 Request for variance from requirements. Except as otherwise provided in NRS 445A.800 to 445A.955, inclusive, an applicant may request a variance from the requirements of NAC 445A.595 to 445A.614, inclusive, pursuant to NAC 439.200 to 439.280, inclusive.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3648)

NAC 445A.614 Procedure for review of actions taken by health division; appeals. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)

1. An applicant for or holder of a permit who:

(a) Has reason to believe that an action taken by the health division pursuant to NAC 445A.595 to 445A.614, inclusive, has been incorrect or based on inadequate knowledge; or

(b) Objects to a limitation or condition placed on his permit by the health division pursuant to subsection 4 of NAC 445A.610,

may, within 10 business days after receiving notice of the action taken, request an informal discussion with the employee of the health division responsible for the action and his immediate supervisor.

2. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the bureau, except that the informal conference must be held no later than 60 days after the date on which the bureau received the written request.

3. Except as otherwise provided in subsection 4, the determination of the bureau resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.

4. An applicant for or holder of a permit issued pursuant to NAC 445A.595 to 445A.614, inclusive, who is aggrieved by an action of the health division relating to the denial of an application for or renewal of such a permit or the modification, suspension or revocation of such a permit may appeal that action in accordance with NAC 439.300 to 439.395, inclusive, after exhausting the informal procedures set forth in this section, except that the bureau may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.

5. As used in this section, "bureau" means the bureau of health protection services of the health division of the department of human resources or its successor.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 10-30-97)

Certification of Operators

NAC 445A.617 Definitions. (NRS 445A.860, 445A.880) As used in NAC 445A.617 to 445A.652, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.618 to 445A.625, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 5-23-96; R021-02, 8-29-2002)

NAC 445A.618 "Advisory board" defined. "Advisory board" means the advisory board appointed by the state board of health pursuant to NRS 445A.870.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3651)

NAC 445A.6185 "Disinfection" defined. (NRS 445A.860, 445A.880) "Disinfection" means a process that inactivates pathogenic organisms in water by using chemical oxidants or equivalent agents and processes, including, without limitation, ultraviolet light and ozonation.

(Added to NAC by Bd. of Health by R021-02, eff. 8-29-2002)

NAC 445A.6195 "Experience in operating" defined. (NRS 445A.860, 445A.880) "Experience in operating" means having been actively engaged in the operation and maintenance activities of a water treatment or water distribution system.

(Added to NAC by Bd. of Health by R021-02, eff. 8-29-2002)

NAC 445A.620 "Ground water" defined. "Ground water" means water that is protected from surface contamination or pollution, including, but not limited to, water from wells, properly developed springs and infiltration galleries.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3653)

NAC 445A.621 "Ground water under the direct influence of surface water" defined. "Ground water under the direct influence of surface water" means any water beneath the surface of the ground that the health division has determined to have:

1. A significant occurrence of insects or other macroorganisms;
2. Algae or large-diameter pathogens such as *Giardia lamblia*; or
3. Significant and rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH which closely parallel climatological or surface water conditions.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3654)

NAC 445A.622 "Health division" defined. "Health division" means the health division of the department of human resources.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3655)

NAC 445A.6225 "Operator" defined. (NRS 445A.860, 445A.880) "Operator" has the meaning ascribed to it in NRS 445A.830.

(Added to NAC by Bd. of Health by R021-02, eff. 8-29-2002)

NAC 445A.623 "Public water system" defined. "Public water system" has the meaning ascribed to it in NRS 445A.840.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3656)

NAC 445A.624 "Responsible charge" defined. (NRS 445A.860, 445A.880) "Responsible charge" means:

1. Actively engaged in on-site supervision and performance of operation activities including the treatment or distribution of water; and
2. Independently making process control or system integrity decisions about water quality or quantity that affect public health.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.625 "Surface water" defined. "Surface water" means all water open to the atmosphere and subject to surface runoff.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3658)

NAC 445A.626 Requirement for certificate. (NRS 445A.860, 445A.880) A person who desires to operate a public water system described in subsection 1 of NRS 445A.875 must obtain a certificate to operate such a public water system pursuant to NAC 445A.617 to 445A.652, inclusive.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.6265 Type of certificate required. (NRS 445A.860, 445A.880)

1. An operator who works only on the operations of a distribution system or distribution facility of a public water system is required to hold a valid certificate only in class distribution at the appropriate level of classification pursuant to NAC 445A.629 as determined by the public water system.
2. An operator who works only on operations of treatment or the operations of a treatment facility of a public water system is required to hold a valid certificate only in class treatment at the appropriate level of classification pursuant to NAC 445A.629 as determined by the public water system.
3. An operator who works on the operations of a distribution system or distribution facility and the operations of treatment or the operations of a treatment facility of a public water system

is required to hold valid certificates in class distribution and class treatment at the appropriate level of classification pursuant to NAC 445A.629 as determined by the public water system.

(Added to NAC by Bd. of Health by R021-02, eff. 8-29-2002)

NAC 445A.627 Requirements for persons in responsible charge; certification and supervision of supervisors and certain operators. (NRS 445A.860, 445A.880)

1. A public water system which:

(a) Is classified as a community water system or a nontransient, noncommunity water system; or

(b) Is designated by the health division as being supplied by:

(1) Surface water; or

(2) Ground water under the direct influence of surface water,

shall have a person in responsible charge at the site of the facility or on call at all times. Except as otherwise provided in NAC 445A.628, the person in responsible charge of the public water system must be the holder of a full certificate in the same classification or a higher classification than the classification of the public water system pursuant to NAC 445A.629.

2. If the person in responsible charge is on call, he must be able to:

(a) Be contacted immediately; and

(b) Respond at the site within 4 hours.

3. A supplier of water shall notify the health division within 72 hours or 2 working days, whichever is earlier, of any time that the public water system is not in compliance with the provisions of this section.

4. If a public water system serves more than 10,000 persons, the health division may require the public water system to have, in addition to the person in responsible charge of the public water system, an additional person or persons in responsible charge at the same time, including, without limitation, a person in responsible charge for the treatment of water or a person in responsible charge for the distribution of water. If the health division requires an additional person or persons in responsible charge pursuant to this subsection, the health division must:

(a) Deliver a written notification of the requirement to the public water system on or before December 31 of the year in which the requirement is made;

(b) Review the requirement not less than once every 5 years to determine whether any changes need to be made regarding the additional person or persons;

(c) Require a public water system that is subject to the requirement of an additional person or persons pursuant to this subsection to employ the additional person or persons within 2 years after the date the public water system receives the written notification of the requirement by the health division to employ the additional person or persons; and

(d) Require the additional person or persons in responsible charge to be certified in the same level of classification or a higher level of classification as the classification of the public water system pursuant to NAC 445A.629.

5. A supervisor employed by a supplier of water must be:

(a) Certified at no less than one class lower than the classification of the public water system pursuant to NAC 445A.629; and

(b) Supervised by a person in responsible charge.

6. An operator employed by a supplier of water to make decisions regarding process control, quality of water, quantity of water or system integrity must be:

(a) Certified at the appropriate level of classification as determined by the public water system; and

(b) Supervised by a person in responsible charge.

7. As used in this section:

(a) "Community water system" has the meaning ascribed to it in NRS 445A.808.

(b) "Nontransient, noncommunity water system" means a nontransient water system as defined in NRS 445A.829.

(c) "Supervisor" does not include a person in responsible charge.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.628 Persons in responsible charge: Approval of person holding certificate as operator-in-training; approval of other qualified person in emergency or for relief. (NRS 445A.860, 445A.880)

1. Upon the request of the owner of a public water system and the approval of the health division, a person holding a certificate as an operator-in-training may be the person in responsible charge of the public water system for not more than 6 months. The health division shall not grant approval unless it makes a finding that:

(a) The person holding the certificate as an operator-in-training has the basic knowledge necessary to operate the public water system;

(b) The health and safety of the public will be protected; and

(c) The owner has demonstrated that the public water system is unable to employ a person who holds a full certificate.

2. The health division shall consider the following in making its decision of whether to grant approval pursuant to subsection 1:

(a) The results of an inspection of the site of the public water system;

(b) A review of the plans and specifications of the public water system;

(c) A review of the personnel records that pertain to the operation of a public water system, experience in operating and training of the person holding the certificate as an operator-in-training; and

(d) A review of any other reasonably available and relevant information.

3. Upon the occurrence of circumstances of an emergency nature, the health division may approve any other qualified person as the person in responsible charge of a public water system for not more than 6 months.

4. The health division shall consider the following in making its decision of whether to grant approval pursuant to subsection 3:

(a) The results of an inspection of the site of the public water system;

(b) A review of the plans and specifications of the public water system;

(c) A review of the personnel records that pertain to the operation of a public water system, experience in operating and training of the person being considered; and

(d) A review of any other reasonably available and relevant information.

5. Upon request from a public water system, the health division may approve a qualified person as the person in responsible charge of a public water system for not more than 15 months to provide vacation and temporary relief of the designated person in responsible charge.

6. The health division shall consider the following in making its decision of whether to grant approval pursuant to subsection 5:

(a) The results of an inspection of the site of the public water system;

(b) A review of the plans and specifications of the public water system;

(c) A review of the personnel records that pertain to the operation of a public water system, experience in operating and training of the person being considered; and

(d) A review of any other reasonably available and relevant information.

7. Within 4 months after an approval is granted pursuant to subsection 1 or 3 or within 12 months after an approval is granted pursuant to subsection 5, the health division shall review the status of the public water system to determine whether the approval should be extended past the limit of approval provided pursuant to subsection 1, 3 or 5. Any determination made by the health division pursuant to this review must be received by the public water system no less than 15 days before the end of the period specified in the approval granted by the health division.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.629 Classification of public water systems. (NRS 445A.860, 445A.880)

1. The health division shall classify all public water systems in this state pursuant to subsections 2 and 3.

2. A public water system which:

(a) Uses only ground water or water provided by another public water system; and

(b) Does not provide treatment of the water or ground water or provides only disinfection by chlorination,

must be classified based only on the population it serves as follows:

DISTRIBUTION CLASSIFICATION	AVERAGE DAILY POPULATION SERVED
Class Distribution-1	25 - 500
Class Distribution-2	501 - 3,300
Class Distribution-3	3,301 - 10,000
Class Distribution-4	10,001 or more

3. A public water system which:

(a) Uses surface water or ground water under the direct influence of surface water; or

(b) Uses ground water and provides treatment of the ground water, other than disinfection by chlorination,

must be classified on a point system as follows:

ITEMS FOR TREATMENT CLASSIFICATION	POINTS
Average daily population served	
25 - 500	5
501 - 3,300	10
3,301 - 10,000	15
10,001 - 100,000	20
100,001 or more	25
Source for public water system	
Ground water	3
Ground water under the direct influence of surface water	4
Surface water	5
Air stripping	4
Ozone	7
Ultraviolet light	8
pH adjustment or corrosion control	4
Iron and manganese removal/sequestering	2
Softening (ion exchange)	5
Granular activated carbon for organic contamination	7
Coagulation	5
Taste and odor control	4
Chlorination	5
Fluoridation	5
Chlorine-ammonia treatment	8
Chlorine dioxide	8
Bacteriological or chemical laboratory	2
Blending, aesthetic	5
Blending, health effects	8
Arsenic removal	8
Nitrate removal	8

ITEMS FOR TREATMENT CLASSIFICATION	POINTS
Filtration	
Conventional	10
Direct	10
Rapid	7
Diatomaceous earth	7
Slow sand	5
Bag, ceramic, microfiltration, nanofiltration, reverse osmosis, membrane	5

TREATMENT CLASSIFICATION	TOTAL POINTS
Class Treatment-1	5 - 19
Class Treatment-2	20 - 35
Class Treatment-3	36 - 45
Class Treatment-4	46 or more

4. The health division shall review the classification of every public water system not less than once every 5 years to determine whether the public water system continues to meet the criteria for that classification pursuant to this section. Upon a determination that the public water system no longer meets the criteria for the classification, the health division shall:

(a) Reclassify the public water system in accordance with the criteria for classification pursuant to this section;

(b) Deliver a written notification of the reclassification to the public water system on or before December 31 of the year in which the determination is made; and

(c) Require the public water system to comply with the requirements of the new classification within 2 years after the date the public water system receives the written notification of the determination by the health division.

5. As used in this section, "filtration" means a process for removing particulate matter from water by passing the water through porous media.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.630 Examination for certification: Application; submission and applicability of fee; reexamination; scheduling; ascending order of administration. (NRS 445A.860, 445A.880)

1. An application to take an examination for certification as an operator must be made on a form provided by the health division and must be submitted to the health division not less than 30 days before the date of the examination. The application must be complete and must be accompanied by the fee for the certification for which the examination is being administered as set forth in NAC 445A.651.

2. The fee accompanying the application for examination entitles an applicant who passes the examination and meets any other qualifications for certification to be certified until December 31 of the first calendar year after the calendar year in which the certification is issued.

3. An applicant who fails an examination is eligible for reexamination at the next scheduled examination if the applicant satisfies the requirements set forth in subsection 1.

4. Examinations for certification must be given at least twice annually at locations and times designated by the health division.

5. Except as otherwise provided in this subsection, an applicant must take the examinations for certification in ascending order beginning with the examination for a certificate as a class distribution-1 or class treatment-1 operator, as applicable. An applicant who holds or has held within the year immediately preceding the date of the examination a certificate to operate a

public water system in another state that is equivalent to such a certificate in this state may take an examination for certification in a class higher than class distribution-1 or class treatment-1 if the health division determines that the applicant qualifies to take an examination for a higher certification.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.631 Examination for certification: Types; areas of examination; return to examinee; maintenance of analysis. (NRS 445A.860, 445A.880)

1. The health division, or its designee, shall offer separate examinations for certification in the four classifications in water treatment and separate examinations for certification in the four classifications in water distribution. The health division shall validate the areas of knowledge tested in an examination pursuant to this subsection before offering such examination to the applicant. The areas in which the examination must test the knowledge of the applicant include, but are not limited to:

(a) General water supply;

(b) Control processes in the treatment or distribution of water;

(c) Operation, maintenance and emergency procedures in the treatment and distribution of water;

(d) Proper recordkeeping relating to the operation of a public water system;

(e) Laws and regulations relevant to the operation of a public water system; and

(f) Water quality standards.

2. Examinations must not be returned to examinees.

3. The health division shall maintain an analysis of each examination administered in the offices of the health division for not less than 1 year after the date on which the examination was administered.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.632 Proctoring, reviewing and grading of examinations; reviewing of qualifications for certificate. (NRS 445A.860, 445A.880)

1. The health division shall proctor, review and grade, or enter into a contract with a person, organization or agency to proctor, review and grade, the examinations for certification. A score of not less than 70 percent is required to pass the examination.

2. The health division shall review, or enter into a contract with a person, organization or agency to review, the qualifications of each applicant for a full certificate to determine whether the minimum requirements for experience in operating set forth in NAC 445A.633 have been satisfied.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.633 Full certificate: Issuance; qualifications. (NRS 445A.860, 445A.880)

1. The health division shall issue a full certificate to an applicant who qualifies for a full certificate. Except as otherwise provided in this section, to qualify for a full certificate, an applicant must, in addition to passing the examination for certification for his specific classification, have a high school diploma or a general equivalency diploma and have the following experience in operating a public water system of that classification:

Classification	Years Experience
Class Distribution-1	6 months
Class Distribution-2	1 year
Class Distribution-3	2 years
Class Distribution-4	3 years
Class Treatment-1	6 months
Class Treatment-2	1 year
Class Treatment-3	2 years
Class Treatment-4	3 years

2. Except as otherwise provided in this subsection, the health division may credit experience in operating gained in the field of wastewater treatment or in a related field toward the experience in operating required pursuant to subsection 1. Not more than one-half of the experience in operating required pursuant to subsection 1 may come from credit issued pursuant to this subsection.

3. The health division may credit all or a portion of the experience in operating gained at a lower classified facility toward the experience in operating required at a higher classified facility if:

(a) The higher classified facility is not more than one classification higher than the highest classified facility for which the applicant is currently certified; and

(b) The health division determines that experience in operating gained at the lower classified facility is equivalent to or is a satisfactory substitute for experience in operating at the higher classified facility.

4. Except as otherwise provided in this subsection, 2 days of education in engineering at the college level, or the equivalent thereof in a related field at a vocational school or as determined by the health division, may be substituted for each day of experience in operating required pursuant to subsection 1. Not more than one-half of the required experience in operating may be satisfied by such substitution.

5. Experience in operating or relevant training may be substituted for a high school diploma or general equivalency diploma upon approval of the health division. Education, training or experience in operating that is substituted for a high school diploma or general equivalency diploma may not be counted toward the experience in operating required in subsection 1.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 5-23-96; R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.634 Certification of operator certified in another state or by California/Nevada section of American Water Works Association. (NRS 445A.860, 445A.880)

1. The health division shall issue a full certificate in the same classification to an operator who has obtained certification in another state if the health division determines, upon review of his application for certification and supporting material, that the applicant has:

(a) Passed an examination that is equivalent to the examination administered by the health division pursuant to NAC 445A.631; and

(b) The experience in operating required by NAC 445A.633.

2. The health division shall issue a full certificate in the same classification to an operator who holds a current certification by the California/Nevada section of the American Water Works Association if the health division determines, upon review of his application for certification and supporting material, that the applicant has:

(a) Passed an examination that is equivalent to the examination administered by the health division pursuant to NAC 445A.631; and

(b) The experience in operating required by NAC 445A.633.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.635 Certificate as operator-in-training: Issuance; subsequent issuance and expiration of full certificate. (NRS 445A.860, 445A.880)

1. The health division shall issue a certificate as an operator-in-training to a person who:

(a) Has passed the examination for certification; and

(b) Does not have the experience in operating required for a full certificate pursuant to NAC 445A.633.

2. Upon payment of the fee set forth in NAC 445A.651, the health division shall issue a full certificate to an operator who, after being issued a certificate as an operator-in-training, has fulfilled the requirement for experience in operating set forth in NAC 445A.633. The full certificate expires on December 31 of the first calendar year after the calendar year in which it is issued.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.636 Provisional certification. (NRS 445A.860, 445A.880)

1. Upon payment of the fee set forth in NAC 445A.651, the health division shall issue to an applicant a provisional certificate if:

(a) The applicant is an owner and operator of a public water system or is employed by a public water system that is not designated by the health division as being supplied by surface water or ground water under the direct influence of surface water;

(b) A statement is submitted to the health division from the governing board or owner of the public water system that the applicant was in a position of responsible charge of the public water system on January 1, 2000;

(c) The applicant was in a position of responsible charge of the public water system before January 1, 2000, and was not required to obtain a full certificate before that date;

(d) The applicant has completed at least 2 days of training that is designed to provide the applicant with basic information on the operation of a public water system; and

(e) The application is submitted not later than December 31, 2000.

2. Except as otherwise provided in subsection 3, a provisional certificate issued pursuant to subsection 1:

(a) Expires on December 31 of the first calendar year after the calendar year in which the certification is issued.

(b) May be renewed for 2 years if the applicant completes the process for renewal as set forth in NAC 445A.638.

3. Except as otherwise provided in subsection 4, a provisional certificate is only valid:

(a) During the period that the operator remains employed in that position of responsible charge of the public water system for which the operator received the provisional certificate; and

(b) At the public water system where the operator is employed on January 1, 2000.

4. A provisional certificate is not valid if the classification of the treatment plant or distribution system changes to a level which is higher than the level for which the certificate was issued.

5. The health division shall sponsor and pay for the training required pursuant to paragraph (d) of subsection 1. Such training must include, without limitation, training in well design, safety, water quality, monitoring, reporting, the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq., drinking water standards, health effects of chemical and bacterial contamination, and the Total Coliform Rule.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 1-26-94; R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.637 Contents and expiration of certificate.

1. A certificate issued pursuant to NAC 445A.617 to 445A.652, inclusive, must indicate the classification for which it is issued and specify if it is a full certificate, provisional certificate or certificate as an operator-in-training.

2. Except as otherwise provided in subsection 3 of NAC 445A.636, a full certificate, a provisional certificate and a certificate as an operator-in-training expires on December 31 of the first calendar year after the calendar year in which it is issued, renewed or reinstated.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.367)

NAC 445A.638 Renewal of certificate: Prerequisites; compliance with requirements for continuing education.

1. A full certificate, a provisional certificate and a certificate as an operator-in-training may be renewed by payment of the fee for renewal and submission to the health division of evidence of compliance with the requirements of continuing education set forth in NAC 445A.639. An application for renewal of a certificate must be made on forms supplied by the health division.

2. The applicant shall indicate on the application for renewal of a certificate evidence of compliance with the requirements of continuing education set forth in NAC 445A.639. The health division shall review the evidence of compliance with the requirements of continuing education to ensure:

(a) The course of training was approved by the health division pursuant to NAC 445A.641 or 445A.643; and

(b) The applicant successfully completed the course of training.

3. The health division shall maintain records of continuing education.

4. Failure to remain active in the operation of a public water system during the period a certificate is valid is cause for denial of an application for renewal of the certificate unless the applicant has met the continuing education requirements of NAC 445A.639.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3671)

NAC 445A.639 Continuing education: General requirements. (NRS 445A.860, 445A.880)

1. The holder of a full certificate, provisional certificate or certificate as an operator-in-training must comply with the requirements of continuing education set forth in this section to qualify for renewal of the certificate.

2. The holder of a certificate for certification in the classification of class distribution-1, class distribution-2, class treatment-1 or class treatment-2, must earn one-half credit of continuing education during the 2 years immediately preceding the date of application for renewal.

3. The holder of a certificate for certification in the classification of class distribution-3, class distribution-4, class treatment-3 or class treatment-4, must earn one credit of continuing education during the 2 years immediately preceding the date of application for renewal.

4. As used in this section:

(a) "One credit of continuing education" means 10 hours of participation in a course of training approved by the health division pursuant to NAC 445A.641 or 445A.643.

(b) "One-half credit of continuing education" means 5 hours of participation in a course of training approved by the health division pursuant to NAC 445A.641 or 445A.643.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.640 Continuing education: Operator who holds full certificate and certificate as operator-in-training at higher classification than full certificate. (NRS 445A.860, 445A.880) An operator who holds a full certificate and a certificate as an operator-in-training at a higher classification than the full certificate must comply with the requirements of continuing education for each certificate to qualify for the renewal of both certificates.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.641 Continuing education: Conditions for obtaining credit. (NRS 445A.860, 445A.880) The health division shall not grant any credit of continuing education to the holder of a certificate for participation in training unless:

1. The course of training is approved by the health division.

2. The course of training is relevant to the subject matter of the particular certificate held by him.

3. The subject matter of the training is relevant to the operation or maintenance of a water treatment plant or a water distribution system. The subject matter may include, but is not limited to, state and federal regulations concerning drinking water, the mechanics for the operation and maintenance of a water treatment plant or water distribution system and the machinery of a water treatment plant or water distribution system, including the electrical systems of a water treatment plant or water distribution system, the hydraulics of a water treatment plant or water distribution system, the chemical treatment of water, the biological testing of water, the disinfection of water and any relevant applications of mathematics and chemistry to the operation or maintenance of a public water system.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R185-99, 2-10-2000; R021-02, 8-29-2002)

NAC 445A.643 Continuing education: Approval of course of training provided by public water system to its employees. (NRS 445A.860, 445A.880)

1. A public water system may request the written approval of the health division for the public water system to provide a course of training for its employees which is intended to comply with any part of the requirement of continuing education. The health division must approve the request in writing before an employee will be credited with continuing education for the course.

2. The health division shall not approve a course of training pursuant to subsection 1 unless the request meets the following criteria:

(a) An outline of the course of training must be submitted with the request for written approval and must state the subjects to be included in the instruction and the time to be allotted for each subject of instruction.

(b) A list of the objectives of the instructor must be submitted with the request for written approval and must specify the essential points of the instruction and the methods of instruction to be used to illustrate these points.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.644 Reinstatement and renewal of expired certificate. (NRS 445A.860, 445A.880)

1. Except as otherwise provided in subsections 3 and 4, a holder of an expired full certificate may request, within 6 months after its date of expiration, that the full certificate be reinstated and renewed by payment of the reinstatement fee set forth in NAC 445A.651 and verification that all requirements of continuing education have been satisfied. To obtain a full certificate, an operator who has not requested reinstatement and renewal of his full certificate within 6 months after the date of its expiration must file a new application for a full certificate accompanied by the required fee set forth in NAC 445A.651.

2. The health division shall not reinstate a provisional certificate or a certificate as an operator-in-training.

3. If the holder of an expired full certificate provides documentation of health problems that made the holder unable to meet the requirements of continuing education for renewal of his full certificate in the time provided pursuant to NAC 445A.639, the holder of the expired full certificate may request, within 2 years after its date of expiration, that the full certificate be reinstated and renewed by payment of the reinstatement fee set forth in NAC 445A.651 and verification that all requirements of continuing education have been satisfied. To obtain a full certificate, an operator who has not requested reinstatement and renewal of his full certificate within 2 years after the date of its expiration must file a new application for a full certificate and comply with the requirements set forth in NAC 445A.630 to 445A.633, inclusive, and pay the fee for the issuance of a full certificate set forth in NAC 445A.651.

4. If the holder of a full certificate provides documentation of military duty that made the holder unable to meet the requirements of continuing education for renewal of his full certificate in the time provided pursuant to NAC 445A.639, the holder of the expired full certificate may request, within 4 years after its date of expiration, that the full certificate be reinstated and renewed by payment of the reinstatement fee set forth in NAC 445A.651 and verification that all requirements of continuing education have been satisfied. To obtain a full certificate, an operator who has not requested reinstatement and renewal of his full certificate within 4 years after the date of its expiration must file a new application for a full certificate and comply with the requirements set forth in NAC 445A.630 to 445A.633, inclusive, and pay the fee for the issuance of a full certificate set forth in NAC 445A.651.

(Added to NAC by Bd. of Health, eff. 9-16-92; A by R021-02, 8-29-2002)

NAC 445A.646 Denial of application for certificate or suspension or revocation of certificate: Grounds. The health division may deny an application for a certificate or suspend or revoke an operator's full certificate, provisional certificate or certificate as an operator-in-training if he:

1. In applying for or obtaining a certificate, has submitted to the health division any application, document, record, report or affidavit, or any information in support thereof, which is false or fraudulent;
2. Is grossly negligent, incompetent or has committed misconduct in the performance of his duties as an operator of a public water system;
3. Has demonstrated disregard for the health and safety of the public;
4. Has acted outside the rights and privileges of his classification for which he holds a certificate;
5. Has been convicted of a violation of any federal law or law of any state relating to water quality, including, but not limited to, the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq.;
6. Has been convicted of a felony or other crime involving moral turpitude, dishonesty or corruption;
7. Has willfully made to an employee of the health division or any health authority any false statement which is material to the administration or enforcement of any provision of this chapter or chapter 445A of NRS;
8. Has failed to renew his certification; or
9. Has violated, attempted to violate, assisted or abetted in the violation of, or conspired to violate any provision of chapter 445A of NRS or this chapter.

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3679)

NAC 445A.647 Denial, suspension or revocation of certificate: Written notice. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880) The health division shall send written notice of the denial of an application for or the suspension or revocation of a certificate pursuant to the requirements set forth in NAC 439.300 to 439.395, inclusive.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 10-30-97)

NAC 445A.651 Fees of health division. The health division shall charge and collect the following fees:

For the issuance of a full certificate	$40
For a certificate issued pursuant to subsection 1 of NAC 445A.634	40
For a certificate issued pursuant to subsection 2 of NAC 445A.634	25
For the issuance of a certificate as an operator-in-training	40
For conversion of a certificate as an operator-in-training to a full certificate	25
For the issuance of a provisional certificate	25
For the renewal of a full certificate	25

For the renewal of a provisional certificate $25
For the renewal of a certificate as an operator-in-training..... 25
For the reinstatement and renewal of a full certificate 100

(Added to NAC by Bd. of Health, eff. 9-16-92)—(Substituted in revision for NAC 445.3684)

NAC 445A.652 Procedure for review of actions taken by health division; appeals. (NRS 439.200, 445A.855, 445A.860, 445A.863, 445A.880)

1. Any person who has reason to believe that an action taken by the health division pursuant to NAC 445A.617 to 445A.652, inclusive, has been incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee.
2. If the informal discussion does not resolve the problem, the aggrieved person may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the aggrieved person and the bureau, except that the informal conference must be held no later than 60 days after the date on which the bureau receives the written request.
3. Except as otherwise provided in subsection 4, the determination of the bureau resulting from the informal conference cannot be appealed and is the final remedy available to the aggrieved person.
4. An applicant for or holder of a certificate issued pursuant to NAC 445A.617 to 445A.652, inclusive, who is aggrieved by an action of the health division relating to the denial of an application for or renewal of such a certificate or the suspension or revocation of such a certificate may appeal that action in accordance with NAC 439.300 to 439.395, inclusive, after exhausting the informal procedures set forth in this section, except that the bureau may waive the informal procedures, or any portion thereof, by giving written notice to the aggrieved person.
5. As used in this section, "bureau" means the bureau of health protection services of the health division of the department of human resources or its successor.

(Added to NAC by Bd. of Health, eff. 9-16-92; A 10-30-97)

Design, Construction, Operation and Maintenance

NAC 445A.65505 Definitions. As used in NAC 445A.65505 to 445A.6731, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.6551 to 445A.6661, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6551 "Absorption field" defined. "Absorption field" means a component of a system for the disposal of sewage from an individual source, which consists of an absorption trench that uses the soil for the disposal and treatment of effluent from a septic tank.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65515 "Acknowledgment of water service" defined. "Acknowledgment of water service" means a document, written under the letterhead of a supplier of water, pursuant to which the supplier indicates to a person who is developing or proposes to develop property for residential, commercial or industrial purposes that the supplier is agreeable to supplying water to the developed property, but which does not indicate that the supplier has assumed any legal obligation to supply that water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6552 "Air and vacuum valve" defined. "Air and vacuum valve" means a dual-function valve that allows the entrance of air into a pipe or well which is being emptied, to

prevent a vacuum, and allows air to escape from a pipe or well which is being filled or is under pressure.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65525 "Air binding" defined. "Air binding" means a condition:

1. In which:

(a) A pump in suction head accumulates air after the initial priming of the pump, due to the release of gases contained in the water being pumped; and

(b) The air displaces the water in the pump and causes the pump to lose its prime; or

2. In which air accumulates in the higher points of a distribution main and reduces the capacity of the main.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6553 "Air gap" defined. "Air gap" means a physical separation between a point of free-flowing discharge from a pipe that supplies liquid to an open or nonpressurized vessel and the overflow rim of that vessel which is:

1. At least twice the effective diameter of that pipe or, if the pipe is affected by side walls, at least three times the effective diameter of that pipe; and

2. In no case less than 1 inch.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65535 "Air release valve" defined. "Air release valve" means a valve that is placed at a high point of a pipeline for the automatic release of air to prevent air binding and the buildup of pressure.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6554 "Alternative pumping capacity" defined. "Alternative pumping capacity" means a source of water, including a well, or a facility for pumping from a source of water, which:

1. Can provide a public water system with regular or emergency supplies of water in areas that do not have an adequate storage of water that is accessible by gravity; and

2. Is equipped with an independent, reliable supply of power that is available during periods when the normal supply of power fails, which:

(a) Consists of:

(1) An emergency generator; or

(2) A standby prime mover that operates by internal combustion; or

(b) Is obtained from an electric substation or other source other than the normal supply of power.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65545 "Altitude control valve" defined. "Altitude control valve" means a valve that automatically:

1. Shuts off the flow of water when the water level in a storage structure reaches a predetermined elevation; and

2. Opens when the water level in the storage structure lowers to a predetermined elevation.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6555 "Annular space" defined. "Annular space" means the area between two cylindrical objects, one of which surrounds the other, including the space between the respective walls of the drill hole and casing of a well.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65555 "Approved backflow testing laboratory" defined. "Approved backflow testing laboratory" means:

1. The Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California; or

2. Any other person or entity who the health authority determines:

(a) Is competent and possesses the necessary facilities to investigate and evaluate assemblies for the prevention of backflow;

(b) Adheres to the procedures for testing and certification set forth in the American Water Works Association Standards; and

(c) Is independent of any manufacturers of assemblies for the prevention of backflow.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6556 "Approved check valve" defined. "Approved check valve" means a check valve:

1. Which does not drip in the normal direction of flow when the inlet pressure is 1 psi or more and there is no outlet pressure.

2. Which allows no leakage in the direction opposite the normal direction of flow.

3. In which the closure element is internally loaded in such a manner as to promote rapid and positive closure.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65565 "Appurtenances" defined. "Appurtenances" means any machinery, equipment, appliances or auxiliary structures attached to a main structure which enable the main structure to function but are not an integral part of the main structure.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6557 "Aquifer" defined. "Aquifer" means a geologic formation, group of geologic formations or part of a geologic formation that is capable of yielding ground water to a well or spring.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65575 "Atmospheric vacuum breaker" defined. "Atmospheric vacuum breaker" means a vacuum breaker that contains an air inlet valve, a check seat and one or more air inlet ports, in which:

1. The flow of water causes the air inlet valve to close the air inlet ports; and

2. When the flow of water stops:

(a) The air inlet valve falls and forms a check valve against backsiphonage; and

(b) The air inlet ports open to allow air to enter and satisfy the vacuum.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6558 "Automatic control" defined. "Automatic control" means a system for the control of equipment entirely by computer or other electrical or mechanical means without human intervention under normal conditions.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65585 "Auxiliary supply of water" defined. "Auxiliary supply of water" means a supply of water or system for the supply of water which is available to the premises of a customer of a public water system, other than the supply or system of the public water system established to provide water to the premises, including another public water system or any natural source of water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6559 "Average day demand" defined. "Average day demand" means the average daily demand for water over a yearly period, as determined by historical data.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65595 "Backfill" defined. "Backfill" means the material used to refill an excavation into which a pipeline or other structure has been placed.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65605 "Backflow" defined. "Backflow" means a hydraulic condition in which a relative difference in pressures causes a nonpotable liquid, gas or other substance to flow into a potable water system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6561 "Backpressure" defined. "Backpressure" means an elevation in the downstream pressure of a piping system above the supply pressure which:
1. Is caused by pumping, air pressure, steam or the elevation of piping; and
2. Could cause a reversal in the normal direction of flow at a particular point.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65615 "Backsiphonage" defined. "Backsiphonage" means a backflow that results when a reduction in the pressure of a water system causes a subatmospheric pressure to exist at a particular site in the water system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6562 "Backwashing" defined. "Backwashing" means the reversal of flow through a filter to wash clogging material out of the filtering medium and reduce conditions that cause head loss.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65625 "Baffles" defined. "Baffles" means deflective valves, guides, grids or gratings, or similar devices, which are constructed or placed in flowing water to check or effect a more uniform distribution of velocities, to absorb energy, to divert, guide or agitate liquids and to check eddies.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6563 "Bag of cement" defined. "Bag of cement" means 1 cubic foot or 94 pounds of cement.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65635 "Ball valve" defined. "Ball valve" means a valve that consists of a ball resting in a cylindrical seat, regarding which:
1. A hole is bored through the ball to allow the flow of water when the valve is open; and
2. The valve closes when the ball is rotated 90 degrees.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6564 "Bell-shaped" defined. "Bell-shaped" means having an expanding rounded entrance.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65645 "Best available technology" defined. "Best available technology" means the best technology, technique or procedure that the EPA finds to be available after an examination of the efficacy of the technology, technique or procedure under conditions both in the laboratory and in the field.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6565 "Blowoff valve" defined. "Blowoff valve" means a valve installed at a low point, depression or end of a pipeline to allow drainage of the pipeline.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65655 "Booster pump" defined. "Booster pump" means a pump installed on a distribution main to raise the pressure of the water on the discharge side of the pump.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6566 "Butterfly valve" defined. "Butterfly valve" means a valve in which a disc rotates in such a manner on a shaft that as it opens and closes, the valve is fully open when the disc is parallel to the axis of the pipe.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65665 "Capacity for the development and treatment of water" defined. "Capacity for the development and treatment of water" means the facilities and appurtenances of a public water system that provide finished water, treated if necessary, to the distribution system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6567 "Casing" defined. "Casing" means:
1. The conduit required to prevent waste and contamination of ground water and to hold the formation open during the construction or use of a well; or
2. The enclosure surrounding an impeller, into which the suction and discharge ports are machined.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65675 "Cement grout" defined. "Cement grout" means a mixture of portland cement, sand and water which contains at least seven bags of cement per cubic yard and not more than 7 gallons of clean water for each bag of cement.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6568 "Cement slurry" defined. "Cement slurry" means a mixture of cement and sand, without aggregate, that:
1. Has a cured compressive strength of 300 psi;
2. Can be excavated with minimal difficulty; and
3. Can provide a uniform support for pipes and backfill in a trench.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65685 "Centrifugal pump" defined. "Centrifugal pump" means a pump that consists of an impeller which:
1. Is fixed on a rotating shaft and enclosed in a casing that includes an inlet and a connection for discharge; and
2. When rotating, creates pressure in the liquid through velocity derived from centrifugal force.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6569 "Certified backflow prevention assembly tester" defined. "Certified backflow prevention assembly tester" means a person who is certified by the California/Nevada section of the American Water Works Association to test assemblies for the prevention of backflow.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65695 "Check valve" defined. "Check valve" means a valve designed to open in the direction of normal flow and close with the reversal of normal flow.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65705 "Chloramines" defined. "Chloramines" means compounds of organic and inorganic nitrogen and chlorine.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6571 "Chlorination" defined. "Chlorination" means the process of adding chlorine to water to:

1. Kill or inactivate organisms that cause disease; or
2. Act as an oxidizing agent.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65715 "Chlorinator" defined. "Chlorinator" means a device used to add chlorine, or a compound that contains chlorine, to water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6572 "Chlorine residual" defined. "Chlorine residual" means the amount of chlorine remaining in water after the reaction of the chlorine with organic and inorganic substances in the water which, depending upon the pH of the water, is in the form of hypochlorous acid or hypochlorite ions.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65725 "Class 1 fire sprinkler system" defined. "Class 1 fire sprinkler system" means a fire sprinkler system that:

1. Has a direct connection to a water main and no physical connection to any source of pollution or contamination;
2. Uses no pumps, tanks or reservoirs; and
3. Uses no antifreeze or other additives of any kind.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6573 "Class 2 fire sprinkler system" defined. "Class 2 fire sprinkler system" means a fire sprinkler system that:

1. Has a direct connection to a water main and no physical connection to any source of pollution or contamination;
2. Has a booster pump installed at the connection to the water main;
3. Uses no tanks or reservoirs; and
4. Uses no antifreeze or other additives of any kind.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65735 "Class 3 fire sprinkler system" defined. "Class 3 fire sprinkler system" means a fire sprinkler system that:

1. Has a direct connection to a water main;
2. Uses no antifreeze or other additives of any kind; and
3. Uses one or more of the following:

(a) An elevated tank for the storage of water.
(b) A pump that takes suction from a tank or covered reservoir located above ground.
(c) A pressure tank.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6574 "Class 4 fire sprinkler system" defined. "Class 4 fire sprinkler system" means a fire sprinkler system that:

1. Has a direct connection to a water main;
2. Has available an auxiliary supply of water which is located on the premises or within 1,700 feet of a pumping connection for the system; and
3. Uses no antifreeze or other additives of any kind.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65745 "Class 5 fire sprinkler system" defined. "Class 5 fire sprinkler system" means a fire sprinkler system that has a direct connection to a water main and:

1. An interconnection with an auxiliary supply of water, including, without limitation:

(a) A prohibited water well;
(b) A water system used for industrial purposes; or
(c) A pump that takes suction from a river, pond or reservoir; or
2. Uses antifreeze or another additive.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6575 "Class 6 fire sprinkler system" defined. "Class 6 fire sprinkler system" means a fire sprinkler system that:
1. Is combined with a water system used for industrial purposes; and
2. Has a direct connection to a water main and no physical connection to any other supplies of water, except that the system may have gravity storage or a pump that takes suction from a tank.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65755 "Clear well" defined. "Clear well" means a structure, vault or chamber used for the storage of finished water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6576 "Coating" defined. "Coating" means a material applied to the inside or outside of a pipe, valve, fixture, tank or other structure, primarily for protection from corrosion.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65765 "Coliform bacteria" defined. "Coliform bacteria" means a group of bacteria that inhabits the intestines of humans and animals, and is occasionally found in other habitats, including:
1. All aerobic and facultative anaerobic, Gram-negative bacilli that do not form spores and which cause the production of gas through the fermentation of lactose; and
2. All bacteria that produce a dark purplish-green colony with a metallic sheen when the membrane-filter technique is used for the identification of coliform.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6577 "Commitment for water service" defined. "Commitment for water service" means a document pursuant to which a supplier of water acknowledges that it has assumed a legal obligation to supply water to property under development or proposed to be developed for residential, commercial or industrial purposes. The document may indicate that the obligation is subject to certain conditions precedent, including, without limitation, the payment of fees, the dedication of water rights or the construction and dedication of infrastructure.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65775 "Concentric reducer" defined. "Concentric reducer" means a reducer used to connect a larger pipe to a smaller pipe in such a manner as to align the center lines of both pipes.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6578 "Concrete grout" defined. "Concrete grout" means a mixture of portland cement, sand, 1/4-inch minus aggregate and water which contains at least five bags of cement per cubic yard of concrete and not more than 7 gallons of clean water for each bag of cement.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65785 "Conductor casing" defined. "Conductor casing" means the temporary or permanent casing used in the upper portion of a drill hole to prevent collapse of the

formation during the construction of a well or to conduct the gravel pack to perforated or screened areas in the casing.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6579 "Constant discharge aquifer test" defined. "Constant discharge aquifer test" means a scientific evaluation of the characteristics of performance of a well and the hydraulic parameters of the aquifer by pumping the well at a specific rate for a significant period while documenting drawdown.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65795 "Contamination" defined. "Contamination" means an impairment of water quality by chemical substances or biological organisms which the health authority determines to be sufficient to create a risk or threat to the public health.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65805 "Corporation stop" defined. "Corporation stop" means a valve, which cannot be operated from the surface, for joining a service line to a water main.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6581 "Cross-connection" defined. "Cross-connection" means an unprotected connection or structural arrangement, whether actual or potential, between a public water system and any other source or system, through which it is possible to introduce into any part of the public water system any used water, industrial fluid, gas or substance other than the potable water intended to supply the system. The term includes any bypass arrangements, jumper connections, removable sections, swivel or change-over devices or other temporary or permanent devices through which or because of which backflow can occur.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65815 "Curb stop" defined. "Curb stop" means a valve that is attached to a service line and can be operated by a valve key to start or stop the flow of water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6582 "Dead end" defined. "Dead end" means the end of a water main which is not connected to other parts of the distribution system by means of a connecting loop.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65825 "Determined to be compatible with drinking water" defined. "Determined to be compatible with drinking water" means that a product is determined to be compatible with drinking water through:

1. Certification of the product by its manufacturer, after the product has been tested in accordance with Standard 14, 42, 44, 53, 54, 55, 58, 60 or 61, as appropriate, of the American National Standards Institute and the National Sanitation Foundation International;
2. Compliance of the materials in the product with 21 C.F.R § 177.2420; or
3. Certification of the product by an independent laboratory approved by the health authority.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6583 "Disinfection" defined. "Disinfection" means:

1. The introduction of chlorine or another chemical oxidant, or of another agent approved by the health authority, in such a concentration and for such a period of contact as is sufficient to kill or inactivate pathogenic or indicator microbiological organisms; or
2. The performance of another process approved by the health authority in such a manner as to kill or inactivate pathogenic or indicator microbiological organisms.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65835 "Distribution main" defined. "Distribution main" means any pipe in a distribution system other than a service line.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6584 "Distribution storage" defined. "Distribution storage" means the storage structures connected to a distribution system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65845 "Distribution system" defined. "Distribution system" means all the facilities of a public water system used to deliver finished water to service connections from the source of the water or from any related treatment facilities.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6585 "Division of environmental protection" defined. "Division of environmental protection" means the division of environmental protection of the state department of conservation and natural resources.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65855 "Double check detector check assembly" defined. "Double check detector check assembly" means an assembly composed of a line-sized double check valve assembly and a bypass that contains a water meter and another double check valve assembly.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6586 "Double check valve assembly" defined. "Double check valve assembly" means an assembly that:
1. Is composed of two independently acting, approved check valves;
2. Has tightly closing, resilient seated shutoff valves attached at each end;
3. Is fitted with properly located, resilient seated test cocks; and
4. Has been tested and approved, in accordance with American Water Works Association Standard C510, by an approved backflow testing laboratory.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65865 "Drive point water well" defined. "Drive point water well" means a water well constructed by driving a drive point attached to the end of a section of pipe into the ground.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6587 "Dug water well" defined. "Dug water well" means a water well for which the excavation is done by using picks, shovels or spades, a backhoe, a clamshell bucket or sand bucket, or similar equipment.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65875 "Eccentric reducer" defined. "Eccentric reducer" means a reducer used to connect a larger pipe to a smaller pipe in such a manner that one edge of both pipes is aligned.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6588 "Emergency" defined. "Emergency" means a situation in which an unusual calamity, including a flood, fire, storm, earthquake, drought, civil disturbance, accidental spill of a hazardous material or similar occurrence, disrupts the provision of water by a public water system or endangers the quality of water provided by a public water system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65885 "Emergency reserve" defined. "Emergency reserve" means finished water that is held in storage and reserved for use in an emergency, including a break in a supply line or a failure of a pumping station.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6589 "Engineer" defined. "Engineer" means a professional engineer who is registered as such in this state within an appropriate discipline.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65895 "Enteric virus" defined. "Enteric virus" means a submicroscopic infective agent that grows and multiplies only in living cells, is associated with feces and can infect humans through transmission by water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65905 "EPA" defined. "EPA" means the United States Environmental Protection Agency.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6591 "Existing public water system" defined. "Existing public water system" means a public water system that has operated for 5 or more years.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65915 "Filtration" defined. "Filtration" means a process for removing particulate matter from water by passing the water through porous media.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6592 "Final map" defined. "Final map" has the meaning ascribed to it in NRS 278.0145.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65925 "Finished water" defined. "Finished water" means water that has been treated or otherwise developed in a manner that complies with NAC 445A.450 to 445A.540, inclusive, and 445A.65505 to 445A.6731, inclusive.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6593 "Fire authority" defined. "Fire authority" means:
1. The county, city, town, special district or agency responsible for fire protection in the area of service of a public water system; or
2. The office of the state fire marshal division of the department of public safety.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65935 "Fire demand" defined. "Fire demand" means the total quantity of water required for protection from fire, as determined by the fire authority and expressed in gallons per minute for a specified number of hours.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6594 "Fire flow" defined. "Fire flow" means the rate of the flow of water, as determined by the fire authority and expressed in gallons per minute, which:
1. Is required for protection from fire; and
2. Can be delivered from a distribution system at a residual pressure of 20 psi at a fire hydrant.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65945 "Fire sprinkler system" defined. "Fire sprinkler system" means a system of piping which is connected to a public water system and has sprinklers that automatically discharge water over the area of a fire.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6595 "Flapper valve" defined. "Flapper valve" means a formed or machined covering for the opening at the end of a pipeline that:
1. Is suspended from the top of the pipe; and
2. Opens and closes by rotating about a hinge in a manner that allows the valve to close under the influence of gravity.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65955 "Flexible coupling" defined. "Flexible coupling" means a joint between two pipes that allows one of the pipes to be deflected without disturbing the other pipe.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6596 "Flocculation" defined. "Flocculation" means a process to enhance agglomeration or the collection of smaller floc particles into larger particles that are more settleable or filterable using gentle stirring by hydraulic or mechanical means.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65965 "Flow detector" defined. "Flow detector" means a device inserted through a coupling placed on the line into the suction side of a pump to shut down the pump when flow is lost, in which a metal reed extends into the flow and the flow causes the reed to flex and keep the electrical contacts for the pump closed.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6597 "Flow proportional control" defined. "Flow proportional control" means an automatic method of chlorination or similar disinfection pursuant to which the rate for the feeding of disinfectant is increased or decreased as the rate of the flow of water increases or decreases.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65975 "Fluoridation" defined. "Fluoridation" means the process for the treatment of water pursuant to which a chemical is added to the water to increase the concentration of fluoride ions to an optimal level for reducing the incidence of dental caries.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6598 "Foot valve" defined. "Foot valve" means a check valve that:
1. Is placed at the bottom of the suction pipe of a pump;
2. Opens to allow the entry of water into the suction pipe; and
3. Closes to prevent water from passing out through the bottom of the suction pipe.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65985 "Gate valve" defined. "Gate valve" means a valve in which a disc slides across an opening to stop the flow of water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6599 "Globe valve" defined. "Globe valve" means a valve with a round, ball-like shell and a horizontal disc.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.65995 "Gravel pack" defined. "Gravel pack" means gravel or other permeable filtering materials placed in the annular space around the casing of a well.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66005 "Gravity sanitary sewer" defined. "Gravity sanitary sewer" means a sanitary sewer designed and constructed in such a manner as to allow wastewater to flow exclusively under the influence of gravity.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6601 "Gravity storm sewer" defined. "Gravity storm sewer" means a storm sewer designed and constructed in such a manner as to allow drainage to flow exclusively under the influence of gravity.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66015 "Grid system" defined. "Grid system" means a layout for a distribution system in which all ends of the water mains are connected to eliminate dead ends.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6602 "Ground-level tank" defined. "Ground-level tank" means a storage tank installed in such a manner that the bottom of the tank is at or below the surface of the ground.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66025 "Ground water" defined. "Ground water" means the subsurface water in the zone of saturation.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6603 "Ground water under the direct influence of surface water" defined. "Ground water under the direct influence of surface water" means any water beneath the surface of the ground that the health division has determined to have:
1. A significant occurrence of insects or other macroorganisms;
2. Algae or large-diameter pathogens such as *Giardia lamblia* or *Cryptosporidium spp.*; or
3. Significant and rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH which closely parallel climatic or surface water conditions.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66035 "Grouting" defined. "Grouting" means the operation by which grout is placed between the casing and sides of a well bore to secure the casing in place and to exclude water and other fluids from the well bore.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6604 "Head" defined. "Head" means the measure of the pressure of water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66045 "Head loss" defined. "Head loss" means the loss of head as a result of friction.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6605 "Header" defined. "Header" means a pipe fitting with several branches for the conveyance of water from a larger pipe to several smaller pipes.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66055 "Health authority" defined. "Health authority" means the officers and agents of the district board of health of the health district in which the area of service of a public water system is located or, if none, the officers and agents of the health division.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6606 "Health division" defined. "Health division" means the health division of the department of human resources.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66065 "Hydropneumatic system" defined. "Hydropneumatic system" means a system pursuant to which an airtight tank, in which air is compressed over water, is used to impart pressure to the water in the tank and to attached pipelines for the distribution of the water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6607 "Impeller" defined. "Impeller" means a rotating set of vanes in a pump designed to impart rotation and energy to a mass of fluid.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66075 "Isolation valve" defined. "Isolation valve" means a valve, including a ball valve, butterfly valve, gate valve, globe valve or other type of valve, installed in a pipeline to shut off the flow of water in a portion of the pipeline for the purpose of inspection or repair.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6608 "Jetted water well" defined. "Jetted water well" means a water well in which the excavation of the drill hole is done primarily by using a high-velocity jet of fluid or gas.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66085 "Lead-free" defined. "Lead-free" means, with regard to:
1. Solder and flux, that not more than 0.2 percent of the composition of the solder or flux is lead.
2. Pipes and fittings, that not more than 8 percent of the composition of the pipe or fitting is lead.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6609 "Lineshaft turbine pump" defined. "Lineshaft turbine pump" means a type of vertical turbine in which:
1. A motor is mounted above the ground and a pumping device is mounted below the surface of the water;
2. A column extends from the pumping device to a discharge device mounted above the ground just below the motor; and
3. A shaft extends on a straight line from the center of the motor to the pumping device.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66095 "Lining" defined. "Lining" means a protective covering that is placed over all or part of the perimeter, top or bottom of a reservoir in such a manner as is necessary to prevent losses due to seepage, withstand pressure, resist erosion and control the growth of aquatic plants.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66105 "Manual of operations and maintenance" defined. "Manual of operations and maintenance" means an operating guide for the use of personnel who operate and maintain a public water system which is written in such a manner as:

1. Primarily to:
(a) Explain the functional operation of the facilities of the system;
(b) Describe the capabilities and limitations of the system; and
(c) Suggest procedures to control the processes of the system;
2. To exclude details regarding the routine maintenance and repair of specific items of equipment which can be obtained from literature disseminated by the manufacturers of the equipment; and
3. To relate specifically to the purpose, function and interactions of the system and the equipment included in the system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6611 "Maximum day demand" defined. "Maximum day demand" means the maximum daily demand for water over a yearly period, as determined by historical data.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66115 "Mechanical joint" defined. "Mechanical joint" means a pipe joint that uses a combination of bolts, flanges, gaskets, locking rings or tapered glands to ensure secure restraint.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6612 "Mechanical seal" defined. "Mechanical seal" means a mechanical device used to control leakage from a pump.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66125 "Mesh" defined. "Mesh" means an opening or space in a screen, the size of which is described by the number of openings or spaces per linear inch of the screen.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6613 "Meter box" defined. "Meter box" means a pit-like enclosure that protects one or more water meters installed in the ground outside a building and allows access for a person to read the meters.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66135 "Meter stop" defined. "Meter stop" means an isolation valve located in a meter box on a water service lateral that is upstream from the water meter.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6614 "mg/l" defined. "mg/l" means milligrams per liter.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66145 "Microscopic particulate analysis" defined. "Microscopic particulate analysis" means an examination of water to determine the presence and amounts of microscopic plants, animals and other solids, including, without limitation, bacteria, algae, diatoms, protozoa, crustacea and insect parts.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6615 "Neat cement" defined. "Neat cement" means a mixture of water and portland cement in a ratio of not less than 5 nor more than 6 gallons of water for each bag of cement.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66155 "Network hydraulic analysis" defined. "Network hydraulic analysis" means the engineering process used to determine the pressure and flow for an existing or proposed networked system of water mains and appurtenances.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6616 "New public water system" defined. "New public water system" means a public water system other than an existing public water system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66165 "Nominal size" defined. "Nominal size" means the commercial designation used by manufacturers for the diameter of a casing or pipe.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6617 "Operating storage" defined. "Operating storage" means water stored in a tank during periods of small demand for water for the purpose of supplying a particular portion of the area of service of a public water system when the demand for water in the area exceeds the capacity of the pumps that deliver water to the area.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66175 "Overflow rim" defined. "Overflow rim" means the unobstructed open edge of a tank, plumbing fixture or other container.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6618 "Packing" defined. "Packing" means a material, usually composed of a lubricant and a woven or braided fiber of an animal, plant, mineral or metal nature, which is placed in rings around the shaft of a pump or stem of a valve and used to control leakage.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66185 "Peak hour demand" defined. "Peak hour demand" means the volume of water which must be supplied by a public water system to meet the demand of its customers for water during the hour that the maximum amount of water is used for a yearly period, as determined by historical data.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6619 "Pet cock" defined. "Pet cock" means a small device which is used for regulating or stopping the flow of water in a pipe and which consists of a rotating taper plug in a body that has ports which correspond to those in a plug or valve.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66195 "pH" defined. "pH" means the logarithm of the reciprocal of the concentration of hydrogen ions.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66205 "Pipe sleeve" defined. "Pipe sleeve" means a protective tube into which a pipe is inserted, which consists of:
1. Steel with walls that are at least 1/4-inch thick; or
2. A material that is of a suitable quality for supplying drinking water, pursuant to the American Water Works Association Standards.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6621 "Pitless adapter" defined. "Pitless adapter" means a commercially manufactured device designed for below-grade attachment to openings through the casing of a

water well that permits water service pipes to pass through the wall or an extension of the casing and prevents the entry of contaminants into the well or supply of water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66215 "Plunge pool" defined. "Plunge pool" means an artificial basin that is located at the base of a falling discharge of water and protected to prevent erosion.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6622 "Point-of-entry treatment device" defined. "Point-of-entry treatment device" means a device that treats all water entering a home or other building.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66225 "Point-of-use treatment device" defined. "Point-of-use treatment device" means a device that delivers treated water to a particular faucet located inside a home or other building.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6623 "Pollution" defined. "Pollution" means an alteration of the chemical, physical, biological or radiological integrity of water that:
1. Impairs the quality of the water to such an extent that the impairment adversely and unreasonably affects those aesthetic qualities which would have made the water desirable for domestic use; and
2. Does not impair the quality of the water to such an extent that the health authority determines that the impairment creates a risk or threat to the public health.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66235 "ppm" defined. "ppm" means parts per million.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6624 "Pressure regulator" defined. "Pressure regulator" means a valve with a horizontal disc or diaphragm for automatically sustaining or reducing water pressure in a main, lateral or service line at or to a preset value. The term includes a pressure-reducing valve, a pressure-sustaining valve and a valve that incorporates both features.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66245 "Pressure relief valve" defined. "Pressure relief valve" means a valve that opens automatically when the water pressure reaches a preset limit, to relieve the stress on a pipeline.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6625 "Pressure vacuum breaker" defined. "Pressure vacuum breaker" means a vacuum breaker that:
1. Contains an independently operating, internally loaded approved check valve and an independently operating, loaded air inlet valve located on the discharge side of the approved check valve; and
2. Is equipped with properly located, resilient seated test cocks and tightly closing, resilient seated shutoff valves which are attached at each end of the assembly.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66255 "Primary standard" defined. "Primary standard" has the meaning ascribed to it in NAC 445A.450.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6626 "Prime mover" defined. "Prime mover" means an internal combustion engine, electric motor or other source of power which is designed to provide the force and motion necessary to drive a pump or other machinery.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66265 "Priming" defined. "Priming" means the starting of flow in a pump, including, for a centrifugal pump, filling the casing and suction pipe with water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6627 "Prohibited water well" defined. "Prohibited water well" means a water well prohibited pursuant to NAC 445A.6687.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66275 "Properly certified laboratory" defined. "Properly certified laboratory" means a laboratory certified in accordance with the provisions of NAC 445A.542 to 445A.54296, inclusive, to perform appropriate analyses.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6628 "psi" defined. "psi" means pounds per square inch.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66285 "Public water system" defined. (NRS 439.200, 445A.860) "Public water system" has the meaning ascribed to it in NRS 445A.840.
(Added to NAC by Bd. of Health, eff. 2-20-97; A by R021-02, 8-29-2002)

NAC 445A.6629 "PVC" defined. "PVC" means polyvinyl chloride.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66295 "Raw water" defined. "Raw water" means water that is not suited for human consumption without treatment.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66305 "Reaction blocking" defined. "Reaction blocking" means the strategic placement of a block of concrete between a fitting and undisturbed soil at the side or bottom of a pipe trench, to prevent the movement of pipes, tees, crosses, valves, bends, hydrants and other appurtenances of a water system from forces that result when water is under pressure and in motion.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6631 "Reduced pressure detector assembly" defined. "Reduced pressure detector assembly" means an assembly designed to protect against pollution and contamination which is composed of a line-sized, reduced pressure principle assembly and a bypass that contains a water meter and another reduced pressure principle assembly.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66315 "Reduced pressure principle assembly" defined. "Reduced pressure principle assembly" means an assembly that:
1. Contains:
(a) Two independently acting approved check valves; and
(b) A hydraulically operating, mechanically independent pressure relief valve that is located between the approved check valves and below the upstream check valve;
2. Has properly located, resilient, seated test cocks and tightly closing, resilient, seated shutoff valves at each end of the assembly;

3. Is designed to protect against pollution and contamination under conditions of backsiphonage or backpressure; and

4. Has been tested and approved, in accordance with American Water Works Association Standard C511, by an approved backflow testing laboratory.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6632 "Reducer" defined. "Reducer" means a pipe or pipe fitting that has a smaller opening at one end than at the other end.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66325 "Residential equivalent" defined. "Residential equivalent" means the average daily demand for water that is typical of a private residence served by a single service connection. If the demand for water by nonresidential users is:

1. Known or estimated by an engineer, one "residential equivalent" shall be deemed to be 700 gallons per day for metered service connections and 1,225 gallons per day for unmetered service connections.

2. Unknown and not estimated by an engineer, one "residential equivalent" shall be deemed to be:

(a) The amount obtained when rates of flow for individual activities are computed and totalled, in accordance with Appendix I of the Uniform Plumbing Code, and the sum is divided by 700 gallons per day for metered service connections or 1,225 gallons per day for unmetered service connections; or

(b) An aggregate total of 20 fixture units, as determined pursuant to Appendix A of the Uniform Plumbing Code.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6633 "Residual flow control" defined. "Residual flow control" means an automatic method of chlorination that maintains a constant chlorine residual, regardless of how changes in the quality or rate of flow of water cause changes in the demand for chlorine.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66335 "Residual pressure" defined. "Residual pressure" means the pressure remaining in the water mains of a distribution system when water is being withdrawn from the distribution system at a particular rate of flow.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6634 "Sanitary seal" defined. "Sanitary seal" means the watertight seal established in the annular space between the casing and drill hole of a water well to prevent the inflow and movement of surface water or shallow ground water, or to prevent the outflow or movement of water under artesian pressure.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66345 "Sanitary sewer" defined. "Sanitary sewer" means an underground system of sewer lines for the collection and conveyance of any type of wastewater from a home or community.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6635 "Sanitary survey" defined. "Sanitary survey" means an on-site evaluation of a public water system to determine whether the water sources, facilities, equipment, processes, administration, operation and maintenance of the system are adequate for the production and distribution of safe and reliable drinking water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66355 "Seal water" defined. "Seal water" means water that is applied to a stuffing box to lubricate and flush the packing or mechanical seal.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6636 "Secondary standard" defined. (NRS 439.200, 445A.863) "Secondary standard" means a standard which specifies a maximum level for constituents found in a public water supply which, if exceeded, may adversely affect the public welfare. The standards apply to constituents that adversely affect the taste, odor, appearance and other esthetic qualities of water.
(Added to NAC by Bd. of Health, eff. 2-20-97; A by R048-99, 9-27-99; R203-99, 8-1-2001)

NAC 445A.66365 "Sedimentation" defined. "Sedimentation" means a process carried out before filtration for the removal of settleable solids by gravity or separation.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6637 "Self-priming pump" defined. "Self-priming pump" means an end-suction, centrifugal pump that has:
1. The suction supply mounted above the eye of the impeller; and
2. A recirculation port placed between the suction and discharge portions of the pump.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66375 "Service connection" defined. "Service connection" means:
1. The point of connection between a public water system and the water system used by a customer of the public water system, at which the public water system loses its authority and control over the water;
2. If a meter is installed at a connection between a public water system and the water system used by a customer of the public water system, the downstream end of the meter; or
3. At a park for mobile homes or recreational vehicles, the riser for water service.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6638 "Service line" defined. "Service line" means the pipe and all appurtenances located between a water main of a distribution system and the place where a customer of the public water system uses the water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66385 "Set point" defined. "Set point" means the pressure or flow that an automatic control is designed to maintain.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6639 "Sewer line" defined. "Sewer line" means a pipe or conduit and any appurtenances, including catch basins and manholes, used to convey wastewater or surface drainage.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66395 "Sewer main" defined. "Sewer main" means a sewer line with a diameter that exceeds 6 inches.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66405 "Sewer service lateral" defined. "Sewer service lateral" means a pipe or conduit that connects a building or other property to a sewer main.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6641 "Silt stop" defined. "Silt stop" means a device placed at the outlet of a storage structure to prevent silt or sediment from reaching a user of the water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66415 "Spool" defined. "Spool" means a short section of pipe with flanged ends.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6642 "Spring" defined. "Spring" means a naturally occurring point of discharge where ground water becomes surface water, regardless of whether the water is developed for use.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66425 "Step drawdown test" defined. "Step drawdown test" means a scientific evaluation of the optimum pumping rate and depth for setting a pump in a well, where:
1. The well is pumped for short periods at successively higher pumping rates and the drawdown for each rate is documented.
2. The purposes of the test are to:
(a) Estimate the relative efficiency of the well; and
(b) Select a pumping rate for the performance of a constant discharge aquifer test.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6643 "Stop and waste valve" defined. "Stop and waste valve" means a valve installed in a meter box or valve box that allows a supply of water to a service line to be shut off and subsequently allows water from pipelines in the building or other property where the water is used to drain into the meter box or valve box.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66435 "Storage structure" defined. "Storage structure" means a reservoir, tank or other structure used by a public water system for the storage of finished water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6644 "Storage tank" defined. "Storage tank" means a tank used by a public water system for the storage of finished water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66445 "Storm sewer" defined. "Storm sewer" means an underground system of sewer lines for the collection and conveyance of surface drainage and other materials deposited into and borne by surface water to a point of disposal.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6645 "Stuffing box" defined. "Stuffing box" means the dry portion of a pump, located behind the impeller and around the shaft, where the packing or mechanical seal is housed.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66455 "Subdivision" defined. "Subdivision" has the meaning ascribed to it in NRS 278.320.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6646 "Submersible pump" defined. "Submersible pump" means a turbine pump designed to operate with the entire pump assembly and motor submersed in liquid.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66465 "Suction head" defined. "Suction head" means the condition that exists when the water on the suction side of a pump is above the centerline of the pump.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6647 "Suction lift" defined. "Suction lift" means the condition that exists when a source of water is below the centerline of a pump.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66475 "Suction well" defined. "Suction well" means a structure, vault or chamber used for the storage of raw water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6648 "Supplier of water" defined. "Supplier of water" means a person or other entity, including a governmental entity, which owns or operates a public water system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66485 "Surface water" defined. "Surface water" means all water open to the atmosphere and subject to surface runoff.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6649 "Surge arrestor" defined. "Surge arrestor" means an electrical device installed to protect electric motors from high-voltage surges in power lines.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66495 "Surge pressure" defined. "Surge pressure" means a momentary increase in the pressure of water in a pipeline caused by a sudden change in the velocity or the direction of flow of the water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66505 "Tentative map" defined. "Tentative map" has the meaning ascribed to it in NRS 278.019.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6651 "Thrust anchor" defined. "Thrust anchor" means a block of concrete that is cast in place below a fitting and tied to the fitting with anchor rods for the purpose of anchoring the fitting against vertical thrust.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66515 "Thrust block" defined. "Thrust block" means a mass of concrete that is cast in place between a fitting and the undisturbed soil located at the side or bottom of a pipe trench for the purpose of anchoring the fitting against thrust.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6652 "Total capacity" defined. "Total capacity" means the capacity of a public water system to supply the water demanded by its customers within its area of service during all conditions except emergencies.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66525 "Treatment facility" defined. "Treatment facility" means a facility for the treatment of water of a public water system.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6653 "Tree system" defined. "Tree system" means a layout for a distribution system in which:

1. The distribution system centers around a single arterial main that decreases in size over its length;
2. Various branches of the distribution system are connected to the arterial main at various angles; and
3. Smaller branches of the distribution system are connected to larger branches at various angles.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66535 "Uniform Plumbing Code" defined. "Uniform Plumbing Code" means, except as otherwise modified by local ordinance pursuant to NRS 444.340 to 444.430, inclusive, the Uniform Plumbing Code as adopted by reference pursuant to NAC 445A.6663.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6654 "Union" defined. "Union" means a mechanical coupling or adapter that is used to connect two pieces of pipe and which consists of:
1. A thread end which is fitted with interior and exterior threads;
2. A bottom end which is fitted with interior threads and a small exterior shoulder; and
3. A ring which at one end has an inside flange and at the other end has an inside thread similar to the exterior thread on the thread end described in subsection 1.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66545 "Vacuum breaker" defined. "Vacuum breaker" means a mechanical device that allows air into a piping system and thereby prevents the backflow that could result when a partial vacuum creates a siphoning action.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6655 "Valve box" defined. "Valve box" means a box or vault constructed of plastic, metal or concrete which is placed over a valve stem at the surface of the ground to allow access for opening and closing the valve and which has a cover located at the surface of the ground to keep out dirt and debris.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66555 "Volute" defined. "Volute" means a spiral-shaped casing that surrounds an impeller and collects the liquid discharged by the impeller.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6656 "Wastewater" defined. "Wastewater" means water which, as a result of domestic, commercial or industrial use, contains physical, chemical or biological impurities.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66565 "Wastewater force main" defined. "Wastewater force main" means a pressurized pipe that connects the discharge from a wastewater lift station to a gravity sanitary sewer.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6657 "Wastewater lift station" defined. "Wastewater lift station" means a pumping station that raises wastewater from a gravity sanitary sewer to a higher elevation.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66575 "Water hammer" defined. "Water hammer" means a potentially damaging slam, bang or shudder that occurs in a pipe when a sudden change in water velocity, usually caused by the rapid starting or stopping of a pump or opening or closing of a valve, creates a great increase in the pressure of water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6658 "Water main" defined. "Water main" means:

1. A pipe or conduit within a distribution system which is used or intended for the conveyance of water to more than one service connection; or

2. A dedicated pipeline for the conveyance of water from its source or a pumping station to a treatment facility, storage structure or distribution system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66585 "Water project" defined. "Water project" means the initial construction, or any renovation, modification or expansion, of:

1. Each portion of a public water system that begins operation after February 20, 1997; or

2. Each portion of a public water system that began operation on or before February 20, 1997, if the portion of the public water system is involved in:

(a) The collection, pumping, treatment, storage or distribution of water; or

(b) The boosting, sustaining or reducing of water pressure,

except any construction, renovation, modification or expansion approved by a health authority or other appropriate governmental entity before February 20, 1997.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6659 "Water service lateral" defined. "Water service lateral" means a pipe that conveys water from a water main to the point of use of the water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66595 "Water well" defined. "Water well" means an encased excavation made by any drilling method for the development of ground water from its source.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66605 "Well yield" defined. "Well yield" means the maximum amount of water, as expressed in gallons per minute or cubic feet per second, that can be pumped from a well on a sustained basis without lowering the level of the water below the intake of the pump.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6661 "Zone of pressure" defined. "Zone of pressure" means an area within a distribution system where the pressure in the water mains is maintained within certain specified limits.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66615 Purposes of provisions. (NRS 439.200, 445A.860) The purposes of NAC 445A.65505 to 445A.6731, inclusive, are to:

1. Provide the public with reasonable assurance that its water is satisfactory for consumption and for ablutionary and culinary purposes;

2. Protect the public health and welfare by ensuring that water is developed, treated, stored and distributed in a safe manner;

3. Ensure a reliable supply of water;

4. Prevent the potential pollution or contamination of a public water system as a result of backpressure or backsiphonage;

5. Provide for the use of components in a public water system that are designed and constructed in accordance with accepted engineering principles, standards and practices; and

6. Protect the public investment in its infrastructure for the provision of water by public utilities.

(Added to NAC by Bd. of Health, eff. 2-20-97; A by R118-99, 2-10-2000)

NAC 445A.6662 Applicability of provisions.

1. Except as otherwise provided in subsection 2, the provisions of NAC 445A.65505 to 445A.6731, inclusive, apply to every public water system in this state.

2. Except for water projects performed after February 20, 1997, NAC 445A.65505 to 445A.6731, inclusive, do not apply to a public water system which the health division determines, based on a sanitary survey and past performance, to be safe and not subject to pollution or contamination as a result of the location, protection, construction, operation or maintenance of that public water system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66625 Severability of provisions. If any of the provisions of NAC 445A.65505 to 445A.6731, inclusive, or any application of those provisions to any person, thing or circumstance is declared invalid, it is intended that such invalidity not affect the remaining provisions or applications to the extent that they can be given effect.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6663 Adoption of standards and publications by reference. The following provisions and publications are hereby adopted by reference:

1. The *American Water Works Association Standards*, as those standards existed on February 20, 1997. A copy of those standards is available by mail from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235, or by telephone at (800) 926-7337, at a price of $818.83 for members and $1230.85 for nonmembers.

2. Standards 14, 42, 44, 53, 54, 55, 58, 60 and 61 of the American National Standards Institute and the National Sanitation Foundation International, as those standards existed on February 20, 1997. Those standards are available by mail from National Sanitation Foundation International, 3475 Plymouth Road, Ann Arbor, Michigan 48105, or by telephone at (313) 769-8010, at a price of $40 for Standard 14, 42 or 44, $50 for Standard 53, 54 or 58, $45 for Standard 55 and $65 for Standard 60 or 61.

3. Standard D3212 of the American Society for Testing and Materials, as that standard existed on February 20, 1997. That standard is available by mail from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428, or by telephone at (610) 832-9500, at a price of $16.50.

4. The provisions of 21 C.F.R. § 177.2420, as those provisions existed on February 20, 1997. The publication that contains those provisions is available by mail from the Superintendent of Documents, U.S. Government Printing Office, Room 118, Federal Building, 1000 Liberty Avenue, Pittsburgh, Pennsylvania 15222, or by telephone at (412) 644-2721, at a price of $22.

5. The *Manual of Cross-Connection Control*, ninth edition, as developed by the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California. This publication is available by mail from the University of Southern California, KAP-200 University Park MC-2531, Los Angeles, California 90089-2531, or by telephone at (213) 740-2032, at a price of $48.

6. *Recommended Practice for Backflow Prevention and Cross-Connection Control*, 1990 edition, as published by the American Water Works Association. This publication is available by mail from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235, or by telephone at (800) 926-7337, at a price of $33.65 for members and $48.65 for nonmembers.

7. *Recommended Standards for Water Works*, 1992 edition, as developed and approved by the Great Lakes Upper Mississippi River Board of State Public Health and Environmental Managers. This publication is available by mail from Health Education Services, P.O. Box 7126, Albany, New York 12224, or by telephone at (518) 439-7286, at a price of $12.

8. *Standard Methods for the Examination of Water and Wastewater*, 19th edition, as published by the American Water Works Association. This publication is available by mail from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235, or by telephone at (800) 926-7337, at a price of $146.50 for members and $218.40 for nonmembers.

9. *Standard Specifications for Public Works Construction*, 1996 edition, as sponsored and distributed by the Regional Transportation Commission of Washoe County, Washoe County, the

City of Sparks, the City of Reno, Carson City and the City of Yerington. This publication may be obtained by mail from the Regional Transportation Commission of Washoe County, 2050 Villanova Drive, Reno, Nevada 89502, or by telephone at (775) 348-0171, at a price of $35.

10. *Uniform Design and Construction Standards for Water Distribution Systems*, 1995 edition, as developed and adopted by Boulder City, Henderson, North Las Vegas, the Big Bend Water District and the Las Vegas Valley Water District. This publication is available by mail from the Las Vegas Valley Water District, Engineering Services Division, 1001 South Valley View Boulevard, Las Vegas, Nevada 89153, or by telephone at (702) 258-3165, at a price of $15.

11. The *Uniform Plumbing Code*, 1994 edition, as adopted by the International Association of Plumbing and Mechanical Officials. This publication is available by mail from the International Association of Plumbing and Mechanical Officials, 20001 Walnut Drive South, Walnut, California 91789-2825, or by telephone at (909) 595-8449, at a price of $52.89 for a softcover copy or $62.81 for a looseleaf copy.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66633 Adoption of manual by reference. (NRS 439.200, 445A.860) *Water Fluoridation: A Manual for Engineers and Technicians*, 1986 edition, as published by the Centers for Disease Control and Prevention of the United States Department of Health and Human Services, is hereby adopted by reference. This publication is available, free of charge, by mail from the Centers for Disease Control and Prevention, Division of Oral Health, Program Services Branch, 4770 Buford Highway, Mail Stop F10, Atlanta, Georgia 30341, or by telephone at (770) 488-6056.

(Added to NAC by Bd. of Health by R118-99, eff. 2-10-2000)

NAC 445A.66635 Health division: Payment of fees. The health division shall not issue or renew any permit to operate a public water system or, except as otherwise provided in subsection 2 of NAC 445A.6669, review plans to construct, remodel or expand such a system until the fees prescribed in NAC 445A.6664 have been paid.

(Added to NAC by Bd. of Health, eff. 1-19-84; A 9-13-91; 2-20-97)—(Substituted in revision for NAC 445A.656)

NAC 445A.6664 Health division: Fees.

1. The health division shall charge and collect fees for its service, as follows:

(a) Except as otherwise provided in subsection 2 of NAC 445A.6669, for reviewing an application for a permit to construct, remodel or expand a public water system:

(1) If it is a community water system:

(I) For reviewing the master plan of:

(i) The water system for a subdivision $100
plus $1 for each connection for supply of water to customers.

(ii) A treatment facility 150

(II) For reviewing plans to remodel the system 150

(III) For reviewing plans to expand the system 150
plus $1 for each connection for supply of water to customers.

(IV) For reviewing plans for water line improvements only 75

(2) If the system is not a community water system 75

(b) For issuing an annual permit to operate a public water system:

(1) If the system is a community water system:

Number of connections for service to customers

1	-	25	$225
26	-	50	300
51	-	100	400

101	-	500	$800
501	-	1,000	2,000
1,001	-	3,000	3,000
3,001	-	10,000	5,000
10,001	-	50,000	8,000
over		50,000	16,000

In determining the number of connections for service to customers, a community water system shall include the number of connections for service of any consecutive public water system which receives water from the community water system. Except as otherwise provided in subsections 2 and 3, a consecutive public water system is not required to pay a fee pursuant to this subparagraph.

(2) If the system is not a community water system and regularly serves at least 25 of the same persons for more than 6 months per year $225

(3) If the system is not a community water system or a public water system that serves at least 25 of the same persons for more than 6 months per year 100

2. A consecutive public water system that operates a facility for the treatment of surface water shall pay an annual fee based on the number of the connections for service to customers served by the facility for the treatment of surface water in the same amount as designated in subparagraph (1) of paragraph (b) of subsection 1.

3. A community water system may require a consecutive public water system which receives water from the community water system to pay annually a portion of the fee imposed pursuant to subparagraph (1) of paragraph (b) of subsection 1 equal in proportion to the amount of services received by the consecutive public water system.

4. As used in this section:

(a) "Community water system" means a public water system which:

(1) Has at least 15 service connections used by residents for an entire year; or

(2) Regularly serves at least 25 residents for an entire year.

(b) "Consecutive public water system" means a public water system that:

(1) Has at least 15,000 service connections; and

(2) Receives treated water from a community water system.

(Added to NAC by Bd. of Health, eff. 1-19-84; A 8-31-89; 12-24-90; 9-13-91; 2-20-97)—(Substituted in revision for NAC 445A.657)

NAC 445A.66645 Administrative review of action taken by health division.

1. A person who has reason to believe that an action taken by the health division pursuant to NAC 445A.65505 to 445A.6731, inclusive, is incorrect or based on inadequate knowledge may obtain an administrative review of the matter only as provided in this section.

2. The aggrieved person may, not later than 10 working days after receiving notice of the action, request an informal discussion with the employee responsible for the action and his immediate supervisor.

3. If the informal discussion does not resolve the problem, the aggrieved person may, not later than 10 working days after the date scheduled for the informal discussion, request an informal conference by submitting a letter to the bureau of health protection services of the health division requesting the conference. The informal conference must be held within 60 days after the bureau receives the letter at a place, date and time mutually agreed upon by the aggrieved person and the bureau. Except as otherwise provided in subsections 3 and 4, the informal conference is the final administrative hearing on the matter.

4. If the informal conference does not resolve the problem and the action taken by the health division consisted of:

(a) The denial of an application for a permit;

(b) The suspension or revocation of a permit; or

(c) The modification of or refusal to modify a permit,

the aggrieved person may request a hearing pursuant to NAC 439.190.

5. The bureau of health protection services may waive any of the provisions of subsections 1 to 4, inclusive. The bureau shall provide the aggrieved person with written notice of any waiver it grants pursuant to this subsection regarding his grievance.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6665 Special exceptions to provisions. The health division may grant a supplier of water a special exception from any of the provisions of NAC 445A.65505 to 445A.6731, inclusive, if the special exception:

1. Is justified by an engineer;
2. Involves an advance in technology, improvement in materials, or alternative method of construction or operation that will not be detrimental to the public health; and
3. Will not conflict with the provisions of NAC 445A.66615.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66655 Responsibilities of supplier of water and customer.

1. A supplier of water and, where applicable, each customer of a public water system shall comply with the provisions of NAC 445A.65505 to 445A.6731, inclusive.
2. A supplier of water:

(a) Is responsible for the quality and quantity of water delivered to its customers and shall provide a safe and reliable supply of water to all of the customers in its area of service.

(b) Shall not provide any customer with a service connection to the public water system unless the public water system is in compliance with the applicable provisions of NAC 445A.65505 to 445A.6731, inclusive, both before and after the service connection is provided.

3. A supplier of water who issues a commitment for water service and, after issuing that commitment, is physically unable to comply with the applicable requirements of NAC 445A.65505 to 445A.6731, inclusive, under all conditions other than emergencies, commits a violation subject to the provisions of NRS 445A.950 and 445A.955.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6666 Prerequisites to approval of tentative and final map for proposed subdivision. If a subdivision is proposed to be located in the area of service of a public water system, the health authority shall not approve:

1. A tentative map for the proposed subdivision unless the health authority receives an acknowledgment of water service for the proposed subdivision.
2. A final map for the proposed subdivision unless:

(a) The health authority receives:

(1) A commitment for water service for the proposed subdivision; and

(2) If the public water system is an existing public water system, a copy of the plan prepared pursuant to subsection 3 of NAC 445A.66725.

(b) The plans submitted pursuant to NRS 278.385 for the installation of water meters or other devices to measure water delivered to each user of water in the subdivision provide that the water meters or other devices will be installed in appropriate protective boxes.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66665 Plan for restoration of services in emergency.

1. A supplier of water shall:

(a) Develop an organized plan of predetermined activities for the public water system to restore its services in the contingency that an emergency, including any failure of power, mechanical or electrical failure or natural disaster, reduces the capability of the public water system to supply the water demanded by its customers within its area of service. The plan must include any actions necessary for responding to any breaks in a water main of the public water system.

(b) Submit a copy of the plan to the health authority or the county clerk of the county in which the public water system is located.

2. For a public water system that:

(a) Began operation on or before February 20, 1997, compliance with subsection 1 is required not later than January 1, 1999.

(b) Begins operation after February 20, 1997, compliance with subsection 1 is required not later than 18 months after the public water system begins operation.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6667 Manual of operations and maintenance. A supplier of water shall prepare a manual of operations and maintenance regarding all of the facilities of the public water system and submit the manual to the health authority for review and approval. The manual must:

1. Describe normal procedures for the operation and maintenance of each facility of the public water system and procedures for use in emergencies.

2. Include any plans required pursuant to NAC 445A.535 or subsection 9 of NAC 445A.66795.

3. Be maintained at each facility of the public water system at all times for use by the operators and other personnel of the facility

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66675 System for control of corrosion. A supplier of water shall, where warranted by the presence of lead or copper in the public water system, install and operate a system for the control of corrosion that:

1. Minimizes the concentrations of lead and copper at the taps of persons who use the public water system; and

2. Does not cause the public water system to violate any of the provisions of NAC 445A.453.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6668 Program for assessment of sources of ground water for vulnerability to contamination. A supplier of water may elect to participate in the program of the health division for the assessment of sources of ground water for vulnerability to contamination. Pursuant to that program, the health division may evaluate a source of water used by a public water system and, based upon its determination of the susceptibility of the source to contamination, authorize a reduction in the required frequency for monitoring the water quality of the source for the presence of certain contaminants. The health division shall base such a determination upon:

1. Any previous results from the monitoring of water quality.

2. The proximity of a source of ground water to potential sources of contamination.

3. The environmental persistence and potential mobility of any identified contamination.

4. Any policies and procedures that could be carried out to control potential sources of contamination.

5. The potential effects in the worst possible case of a release from a potential source of contamination.

6. The physical features and conditions in place to protect the source of ground water from potential sources of contamination, including the design and construction of the well, the type of soil and the hydrogeological environment.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66685 Standards for design and construction of system.

1. The design and construction of a public water system must comply with the provisions of:

(a) NAC 445A.65505 to 445A.6731, inclusive.

(b) The American Water Works Association Standards.

(c) Standards 14, 42, 44, 53, 54, 55, 58, 60 and 61 of the American National Standards Institute and the National Sanitation Foundation International.

(d) Recommended Practice for Backflow Prevention and Cross-Connection Control.

(e) Recommended Standards for Water Works.

(f) For public water systems in Carson City, Fallon, Reno, Sparks, Yerington, Douglas County, Lander County, Lyon County, Nye County or Washoe County, Standard Specifications for Public Works Construction.

(g) For public water systems in Boulder City, Henderson, North Las Vegas, the Big Bend Water District or the Las Vegas Valley Water District, Uniform Design and Construction Standards for Water Distribution Systems.

(h) The Uniform Plumbing Code.

(i) Any other engineering standards approved by the health division.

2. If there is any conflict between any of the provisions described in subsection 1, the most stringent of those provisions prevails.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6669 Prerequisites to commencement of water project; waiver of prerequisites; exceptions.

1. Except as otherwise provided in this section, a supplier of water shall, before commencing a water project:

(a) Submit to the health authority, with the appropriate fees, an application for approval of the water project that complies with the requirements of NAC 445A.66695;

(b) Obtain the health authority's review and written approval of the water project.

2. A health authority may waive the provisions of subsection 1 if:

(a) The water project is limited to a modification or expansion of a distribution system which:

(1) Involves 500 feet or less of the distribution system;

(2) Affects not more than 5 percent of the total number of service connections to the public water system; or

(3) Increases the total number of service connections to the public water system by not more than 5 percent;

(b) The water project otherwise complies with the provisions of NAC 445A.65505 to 445A.6731, inclusive;

(c) The supplier of water:

(1) Employs or contracts with an engineer to carry out the provisions of NAC 445A.66705 regarding the water project;

(2) Submits to the health authority a copy of its manual of operations and maintenance for the public water system; and

(3) Submits to the health authority annual reports which:

(I) Summarize the status of work on the water project; and

(II) Contain maps depicting the distribution system, as it is being built.

3. The provisions of subsection 1 do not apply to any activities necessary for:

(a) The maintenance of any facilities of a public water system, except for the relining or recoating of storage tanks; or

(b) The repair of any facilities of a public water system in an emergency. The supplier of water shall notify the health authority immediately, by telephone, when an emergency exists that threatens the quality of water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66695 Application for approval of water project. An application for approval of a water project must contain:

1. Complete plans for the water project, including the details of any improvements to be made and all work to be performed on site.

2. Complete specifications to supplement the plans for the water project.

3. A design report that:

(a) Describes the water project and basis for design of the water project;

(b) Provides the criteria for design, data and other pertinent information defining the water project; and

(c) Establishes the adequacy of the proposed water project to meet the needs of the public water system.

4. Chemical, physical, bacteriological and radiological analyses of any new sources of water which are proposed to be used, which:

(a) Are conducted by a properly certified laboratory; and

(b) Indicate that the water complies with the provisions of NAC 445A.450 to 445A.492, inclusive.

5. The requirements for fire flow and fire demand.

6. Any other pertinent information required by the health authority to evaluate the application.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66705 Preparation of plans, specifications and design reports for water project: Duties of engineer. All initial and final plans, specifications and design reports for a water project must be prepared by, or under the direct supervision of, an engineer. The engineer shall affix his signature, the applicable date and his wet seal or stamp to each sheet of those plans and to each title page for those specifications and design reports.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6671 Approval of water project: Prerequisites; effective period; revocation.

1. A health authority shall not approve a water project unless the application for approval of the water project demonstrates that the water project will comply with the applicable provisions of NAC 445A.65505 to 445A.6731, inclusive.

2. Approval of a water project is effective for 1 year, except that a health authority may extend this period in 1-year increments if:

(a) Work is being performed on the water project; and

(b) The health authority receives a schedule of work and periodic updates on the progress of the water project.

3. A health authority shall revoke its approval of a water project if work on the water project:

(a) Does not commence within 1 year after the approval of the water project becomes effective; or

(b) Ceases for a continuous period of 1 year.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66715 Performance and inspection of work on water project; certification of substantial compliance with approved plans and specifications.

1. Work on a water project must be:

(a) Performed in substantial compliance with the plans and specifications approved for the water project by the health authority. Approval of the health authority is required before carrying out any proposed changes in materials, equipment, quantities, configurations or processes, and before any additions or deletions of infrastructure, which would affect the quality or quantity of water.

(b) Inspected by qualified representatives of the supplier of water.

2. Within 30 days after the completion of a water project, the supplier of water shall certify to the health authority that the water project was completed in substantial compliance with the plans and specifications approved for the water project by the health authority.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6672 Existing systems: Minimum capacities; minimum pressure and velocity of water; total capacity of ground water system; timely completion of water projects. A supplier of water for an existing public water system shall:

1. Ensure that the public water system maintains a sufficient capacity for the development and treatment of water, and a storage capacity of sufficient quantity, to satisfy the requirements of all users of the public water system under the conditions of maximum day demand and peak hour demand.

2. Ensure that the residual pressure in the distribution system is:

(a) At least 20 psi during conditions of fire flow and fire demand experienced during maximum day demand;

(b) At least 30 psi during peak hour demand; and

(c) At least 40 psi during maximum day demand.

Unless otherwise justified by an engineer and approved by the health authority, high head losses must be avoided by maintaining normal water velocities at approximately 8 feet per second during all conditions of flow other than fire flow.

3. If the public water system relies exclusively on water wells as its source of water, ensure that the total capacity of the system is sufficient to meet:

(a) The maximum day demand, fire flow and fire demand when all the facilities of the system are functioning; or

(b) The average day demand, fire flow and fire demand when the most productive well of the system is not functioning,

whichever is greater. When computing total capacity for this purpose, credit must be given for any storage capacity.

4. Ensure that water projects are completed in such a manner as to meet the actual maximum day demand, peak hour demand, fire flow and fire demand for developments of property in the area of service of the public water system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66725 Existing systems: Determination of total capacity preparation, maintenance and dissemination of certain information, analyses, plans and reports. A supplier of water for an existing public water system shall:

1. Determine the total capacity of the public water system through engineering analyses that use historical data or other guidelines or parameters accepted by the engineering profession and, upon request, submit documentation of that capacity to the health authority. When analyzing the total capacity of the public water system with regard to requirements for maximum day demand, only the alternative pumping capacity and the storage capacity of the public water system may be considered as sources of supply.

2. When assessing the total capacity of the public water system and the need for water projects to meet future commitments, use a network hydraulic analysis of the public water system. The analysis must be prepared by an engineer.

3. Prepare a plan for the timely completion of any water projects required to meet the anticipated needs of developers of property within the area of service of the public water system and, upon request, provide a copy of the plan to the health authority.

4. Maintain:

(a) A current list of the users of the public water system.

(b) A copy of each pending acknowledgment of water service it has issued.

5. Provide to the health authority, upon request and at no charge, any data, technical information or engineering analyses or reports necessary to determine the acceptability of any technologies, processes, products, facilities or materials associated with the design, construction, operation or maintenance of the public water system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6673 Existing systems: Evaluation, justification and design of proposed water project. If an existing public water system proposes to perform a water project after February 20, 1997, the proposed water project must be:

1. Evaluated and justified by an engineer through technical means; and

2. Designed on the basis of historical data or other representative data that complies with accepted engineering judgment and practice, in such a manner that the proposed water project will enable the public water system to meet average day demand, maximum day demand, peak hour demand and requirements for fire flow and fire demand.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66735 New systems: Capacity for development and treatment of water.

1. A supplier of water for a new public water system shall ensure that, except as otherwise justified by an engineer and approved by the health authority pursuant to subsection 2, the public water system's capacity for the development and treatment of water, whether surface water or ground water, or both, is sufficient to provide, when the demand for water in the area of service of the system is:

(a) Not more than 100 residential equivalents, at least 2 gallons per minute per residential equivalent for metered systems and 2.5 gallons per minute per residential equivalent for unmetered systems.

(b) More than 100 but not more than 250 residential equivalents, at least 1.5 gallons per minute per residential equivalent for metered systems and 2 gallons per minute per residential equivalent for unmetered systems.

(c) More than 250 but not more than 500 residential equivalents, at least 1.2 gallons per minute per residential equivalent for metered systems and 1.7 gallons per minute per residential equivalent for unmetered systems.

(d) More than 500 residential equivalents, at least 1 gallon per minute per residential equivalent for metered systems and 1.5 gallons per minute per residential equivalent for unmetered systems.

2. The health authority may, after evaluation on a case-by-case basis, revise the minimum requirements set forth in subsection 1 when an area of service involves unique circumstances or applications of water, including an area of service that contains mines or large residential lots or has extraordinary industrial, institutional, commercial or other nonresidential needs.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6674 Storage capacity. Except as otherwise provided in NAC 445A.66755:

1. A supplier of water shall ensure that:

(a) An existing public water system maintains a storage capacity that, as determined by an engineer on the basis of historical data, accepted engineering judgment and a network hydraulic analysis, is sufficient to ensure that the total capacity of the public water system will meet current and anticipated demands for water while maintaining the pressures indicated in NAC 445A.6711.

(b) A new public water system maintains a storage capacity that is sufficient to provide the amount of water required for sufficient operating storage, emergency reserve and fire demand.

2. Storage requirements for fire demand must be calculated according to the requirements of the fire authority. The health authority shall evaluate the design of a public water system based upon appropriate documentation of those requirements.

3. A supplier of water for an existing public water system shall ensure that the total storage capacity and capacity of booster pumps for each zone of pressure in the distribution system are sufficient to meet the maximum day demand within that zone. Water stored in a higher zone of pressure may be provided to serve a lower zone of pressure if:

(a) An appropriate pressure regulator is installed between the zones; and

(b) The requirements for the higher zone of pressure are not compromised.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66745 Operating storage. Except as otherwise provided in NAC 445A.66755:

1. An existing public water system must maintain an operating storage in such an amount as an engineer determines, based upon historical data and the system's capacity for the development

and treatment of water, to be sufficient for the system to meet requirements for maximum day demand.

2. A new public water system must, except as otherwise justified by an engineer and approved by the health authority, maintain an operating storage equal to 700 gallons for each residential equivalent in the area of service of a metered system and 1,225 gallons for each residential equivalent in the area of service of an unmetered system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6675 Emergency reserve. Except as otherwise provided in NAC 445A.66755:

1. An existing public water system must maintain an emergency reserve in such an amount as an engineer determines appropriate on the basis of the best available local information.

2. A new public water system must maintain an emergency reserve equal to 75 percent of the amount of operating storage of the system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66755 Existing systems: Exemption from storage requirements. An existing public water system is not required to comply with the requirements of NAC 445A.6674, 445A.66745 and 445A.6675 if the system has a sufficient alternative pumping capacity to meet requirements for maximum day demand, peak hour demand and fire flow.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6676 Development and treatment of sources of water: General requirements.

1. The development or treatment of a source of water for a public water system must comply with the applicable provisions of:

(a) NAC 445A.66765 to 445A.6696, inclusive; and

(b) NAC 445A.495 to 445A.540, inclusive.

2. An engineer who designs such a project shall demonstrate to the health authority that:

(a) Any source of water selected for development contains a sufficient quantity of available water to ensure that the total capacity of the public water system is adequate; and

(b) Any water intended to be supplied to users of the public water system will meet the standards set forth in NAC 445A.450 to 445A.492, inclusive, for microbiological, physical, chemical and radiological quality.

3. A supplier of water shall, within any applicable economic, technical and legal limitations, obtain water from the best source available.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66765 Treatment facilities: General requirements; use of point-of-entry or point-of-use treatment devices; prerequisites to selection of design.

1. Treatment facilities must be capable of producing water that complies with the requirements of NAC 445A.450 to 445A.492, inclusive. If a treatment facility is designed to meet primary standards, the facility must use the best available technology to attain that purpose. If a supplier of water proposes to meet secondary standards by using point-of-entry treatment devices or point-of-use treatment devices, or both, the proposal must be reviewed and approved by the health authority before it is carried out.

2. Before a supplier of water selects a design for a treatment facility, it shall cause an engineer to conduct an investigation to determine the physical, chemical, microbiological and radiological characteristics of the raw water to be treated. The investigation must include:

(a) A determination of any seasonal variations in the quality of the raw water; and

(b) A sanitary survey of the relevant portions of the public water system in this state, to identify potential sources of contamination that could affect the quality of the water at its source, at any impoundments of the water and at any facilities for the delivery of the water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6677 Treatment facilities: Prerequisites to use.

1. A supplier of water shall, before using a treatment facility:

(a) Submit to the health authority the information regarding the design of the facility set forth in subsection 2; and

(b) Obtain the health authority's review and written approval of the design of the facility.

2. The information required pursuant to subsection 1 includes:

(a) The range of the quality of water to be treated at the facility.

(b) The results of any relevant pilot studies.

(c) A schematic diagram of the facility.

(d) The critical criteria for the design of the facility, including, without limitation, the average day demand, maximum day demand, peak hour demand, rates of loading and backwashing, rates for the feeding of chemicals and capability for handling solids.

(e) Detailed plans and specifications for the facility.

(f) Verification that the materials to be used in the facility are determined to be compatible with drinking water.

(g) Any other information the health authority determines necessary to complete its review.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66775 Treatment facilities: Selection of site. A supplier of water shall:

1. Before plans and specifications are prepared for a treatment facility, consult with the health authority regarding the selection of a site for the facility; and

2. When selecting such a site, consider the applicable topography and conditions of the soil and any potential hazards from earthquake, fire, flood and other causes.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6678 Treatment facilities: Determination of necessary amount of redundancy. A supplier of water shall, before a treatment facility is designed, consult with the health authority regarding the amount of redundancy the health authority will determine is necessary for the facility. The health authority shall base that determination upon the number of connections to be served, the availability of other sources of water acceptable to the health authority and the capability of the public water system to control the use of water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66785 Treatment facilities: Design and construction. A treatment facility must:

1. Be designed in such a manner as to ensure:

(a) The reliable operation of the facility; and

(b) That the public water system can meet its current demands for water.

2. Except as otherwise specifically allowed by the health authority:

(a) Ensure that at any time the facility is the sole source of water for the public water system, the total capacity of the system is sufficient to meet the maximum day demand, peak hour demand and fire flow for the area of service of the system.

(b) Include at least two devices each for pumping, mixing chemicals, flocculation, sedimentation, filtration and disinfection.

(c) Be constructed in such a manner as to allow individual devices required pursuant to paragraph (b) to be taken out of service without disrupting the operation of the facility.

(d) Have drains and pumps of such a size as to allow the removal of water within a reasonable time.

(e) Have a standby source of power available to allow the operation of essential functions when the regular source of power fails.

(f) When filtration is used, discharge filtered water after backwashing into a system for waste.

(g) If the facility does not have a person present on a 24-hour basis, include a device that automatically shuts off the facility when the facility is not operating properly.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6679 Treatment facilities: Designation of piping and valves; schematic diagram for control of processes.
1. In a treatment facility:
(a) The piping must designate, by color coding and other means, the liquid contained in the piping and the direction of flow of the liquid.
(b) The valves must be designated by tags.
2. A treatment facility must have available a schematic diagram for the control of the processes of the facility which identifies and describes the designations required by subsection 1.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66795 Treatment facilities: Submission of information regarding application of chemicals. If the design of a treatment facility includes the application of chemicals, a supplier of water shall submit to the health authority with the information required pursuant to NAC 445A.6677:
1. Descriptions of the equipment for feeding the chemicals, including the minimum and maximum rates of feeding.
2. A description of the location of the feeders, layout of piping and points of application.
3. A description of the facilities for the storage and handling of the chemicals.
4. Specifications for the chemicals to be used.
5. A description of the procedures for operation and control, including proposed rates of application.
6. Descriptions of the testing equipment and monitoring procedures to be used.
7. The results of any chemical, physical or biological tests, and any other tests, performed to determine the optimum chemical treatment.
8. A description of the assemblies for the prevention of backflow proposed to be used for protection against cross-connections.
9. A plan for the safety of persons operating the facility which conforms to any applicable state or federal requirements for occupational safety and health.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66805 Treatment facilities: Quality of chemicals; labeling of containers for shipping chemicals; storage of chemicals. In a treatment facility:
1. Each chemical used for the treatment of water must be determined to be compatible with drinking water.
2. Containers for the shipping of chemicals must be labeled in such a manner as to include:
(a) The name, purity, concentration and date of manufacture of each chemical.
(b) The name and address of the supplier of the chemical.
(c) Any other information required by any applicable state or federal statutes or regulations for occupational safety and health.
3. Storage space for chemicals must:
(a) Be adequate for the storage of a sufficient supply of chemicals. Unless the health authority determines that the availability of alternative supplies of chemicals warrants otherwise, a supplier of water shall maintain at least a 30-day supply of chemicals.
(b) Be adequate for the convenient and efficient handling and delivery of chemicals.
(c) Maintain conditions of dry storage.
(d) Provide adequate ventilation.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6681 Treatment facilities: Safety and efficiency. A treatment facility must be designed and constructed in such a manner as to:

1. Function safely and efficiently.
2. Comply with any requirements imposed by:
(a) The federal Occupational Safety and Health Administration.
(b) The division of industrial relations of the department of business and industry.
(c) The fire authority.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66815 Treatment facilities: Disposal of waste.
1. A supplier of water shall provide for the proper disposal of waste from a treatment facility, including sanitary waste, sludge, waste from any laboratory, waste from drainage within the facility and waste resulting from backwashing.
2. The discharge of any waste from a treatment facility must comply with any requirements imposed by the division of environmental protection.
3. A supplier of water shall locate facilities for the disposal of waste from a treatment facility in such a manner as to avoid any potential contamination of the environment, including any supply of water.
4. The drains of a treatment facility must be equipped with primable traps.
5. Any system for the discharge of waste from a treatment facility to a sewer line must include an air gap.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6682 Fluoridation. (NRS 439.200, 445A.055, 445A.860)
1. On or before March 1, 2000, all water delivered for human consumption in a county whose population is 400,000 or more by a:
(a) Public water system that serves a population of 100,000 or more; or
(b) Water authority,
must be fluoridated.
2. In a county whose population is less than 400,000, all requests that fluoride be added to the water supply for the reduction of the incidence of dental caries must be referred to the health authority, who shall send the request to the board of health for consideration. In addition to any approval required pursuant to NRS 445A.025 to 445A.050, inclusive, the following must agree to a request to add fluoride to the water supply:
(a) The public water system;
(b) The county board of health;
(c) The state board of health;
(d) The local dental and medical society, or if there is none, the state dental and medical society; and
(e) The local governing authority.
If such approval is granted, the fluoridation of the water must be provided in accordance with the provisions of this section.
3. The state board of health will exempt a public water system or water authority from the requirement of fluoridation of the ground water in its wells if the public water system or water authority submits documentation to the state board of health that demonstrates that its system for the production of ground water:
(a) Produces less than 15 percent of the total average annual water production of the public water system or water authority for the years in which drought conditions are not prevalent; and
(b) Is part of a combined regional and local system for the distribution of water that is served by a fluoridated source.
4. A public water system or water authority that is required to fluoridate all water delivered for human consumption pursuant to subsection 1 shall:
(a) Cease fluoridation of that water during an emergency related to fluoridation of the water;
(b) Submit to the health division within 30 days after the emergency occurs, a written notice describing the emergency and the length of time during which the public water system or water authority ceased fluoridation of the water; and

(c) Resume fluoridation of the water when the emergency no longer exists.

5. A public water system or water authority that is required to fluoridate all water delivered for human consumption pursuant to subsection 1 may cease fluoridation of that water during a period of routine maintenance if the public water system or water authority:

(a) Submits to the health division within 30 days before the period of routine maintenance, a written notice describing the maintenance and the length of time during which the public water system or water authority will cease fluoridation of the water; and

(b) Resumes fluoridation of the water when the maintenance is completed.

6. In addition to meeting the standards set forth in NAC 445A.450 to 445A.492, inclusive, a public water system or water authority shall maintain in all water it delivers for human consumption:

(a) A minimum concentration of fluoride that is not less than 0.7 ppm; and

(b) A maximum concentration of fluoride that does not exceed 1.2 ppm.

7. The introduction of a chemical for fluoridation into the facilities of a public water system or water authority must be made:

(a) Through accurate feeding equipment; and

(b) In accordance with *Water Fluoridation: A Manual for Engineers and Technicians*.

8. The feeding equipment must be maintained in accordance with *Water Fluoridation: A Manual for Engineers and Technicians*.

9. The feeding equipment must be controlled in such a manner that fluoride is added to the facilities of the public water system or water authority only when those facilities and the related equipment for supplying water are functioning properly. Electrical power to the feeding equipment must be wired in conjunction with the pumping or flow control equipment of the public water system or water authority in such a manner that fluoride cannot be introduced into the supply of water when the water is not flowing. Pumps for feeding chemicals must be equipped with flow detectors which ensure that the injection of chemicals stops when the well or booster pumps stop.

10. Either gravimetric or volumetric dry-feed equipment or positive displacement liquid-feed equipment with an accuracy within 5 percent is required. When liquid-feed equipment is used, at least two solution tanks must be available for the preparation and storage of the fluoride solution.

11. A person who handles chemicals that are added to the water in the fluoridation process shall comply with the requirements relating to protective equipment set forth in section 5.3.4 of the *Recommended Standards for Water Works*.

12. Each public water system and water authority shall:

(a) Maintain a kit which is approved by the health authority for testing the concentration of fluoride in water.

(b) Adjust the concentration of fluoride if the natural concentration of fluoride in the water delivered for human consumption by the public water system or water authority is not within the permissible concentrations of fluoride set forth in subsection 6.

(c) Take samples from one or more points in the distribution system that are approved by the health authority.

(d) Test or monitor the concentration of fluoride daily after its introduction into the facilities of the public water system or water authority and maintain accurate records of the results of that testing or monitoring.

(e) Report the results of the daily testing or monitoring to the health authority at least monthly and in accordance with any written instructions prescribed by the health authority.

(f) Not less than once a week, have a properly certified laboratory verify the results of the testing or monitoring for at least 1 day using the methods approved in the *Standard Methods for the Examination of Water and Wastewater*. The health authority may take samples from points in the distribution system approved by it pursuant to paragraph (c) to test the samples for control purposes.

(g) Follow any written instructions of the health authority for the sampling of water to which fluoride has been added.

(h) Keep a record or copy of the results of the daily testing or monitoring on the premises of its facility or at a convenient location near the premises for the period specified in 40 C.F.R. § 141.33. The record or copy must be available for inspection by the health authority upon request.

(i) In the fluoridation of water, only use fluoride that meets the requirements set forth in standards B701-94, B702-94 and B703-94 of the *American Water Works Association Standards*.

(j) Notify the health division as soon as possible, but not later than the end of the next business day, if:

(1) The concentration of fluoride in the water that is delivered for human consumption does not meet the levels of concentration required by subsection 6; or

(2) Any other event occurs that may affect the ability of the public water system or water authority to produce safe, potable water.

(k) Comply with the provisions of:

(1) This section;

(2) The *Recommended Standards for Water Works*;

(3) The *Standard Methods for the Examination of Water and Wastewater*;

(4) *Water Fluoridation*: *A Manual for Engineers and Technicians*; and

(5) Standards B701-94, B702-94 and B703-94 of the *American Water Works Association Standards*.

If there is a conflict between any of the provisions described in this paragraph, the most stringent of those provisions prevails.

13. As used in this section:

(a) "Health authority" has the meaning ascribed to it in NAC 445A.66055, except that with regard to a county whose population is 400,000 or more, "health authority" means the officers and agents of the health division.

(b) "Water authority" has the meaning ascribed to it in NRS 377B.040.

[Bd. of Health, Water Supply Reg. § 10, eff. 1-8-52]—(NAC A 2-20-97; R118-99, 2-10-2000)

NAC 445A.66825 Disinfection of water: General requirements.

1. In addition to any disinfection required pursuant to NAC 445A.526, a supplier of water shall provide for the continuous disinfection, in accordance with NAC 445A.66825 to 445A.6685, inclusive, of any ground water used by the public water system which:

(a) Does not comply with primary standards;

(b) Is obtained from a well that is located or constructed in a manner that varies from the requirements of NAC 445A.65505 to 445A.6731, inclusive; or

(c) Is distributed through a distribution system that is constructed in a manner that varies from the requirements of NAC 445A.65505 to 445A.6731, inclusive.

2. A supplier of water shall:

(a) Locate any facilities for disinfection in such a manner that the facilities are accessible throughout the entire year.

(b) Provide adequate housing for equipment used for disinfection and for the storage of disinfectants.

3. If a supplier of water proposes to use any disinfectants other than chlorine, including iodine, ozone, chlorine dioxide, chloramines or ultraviolet light, the supplier of water shall, before preparing the final plans and specifications for the facility, submit the proposal to and obtain the approval of the health authority.

4. Chloramines may be used as a secondary disinfectant to maintain an effective residual of disinfectant in a distribution system only if the health authority, after conducting an evaluation of each proposal for such a use on a case-by-case basis, determines that chloramines are suitable for that use.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6683 Disinfection of water: Chlorination. If chlorine is used for the disinfection of water:

1. The disinfection must be accomplished with liquefied or gaseous chlorine, calcium hypochlorite or sodium hypochlorite.

2. The supplier of water shall use chlorinators that:

(a) Feed chlorine into solution by gas or feed hypochlorite by positive displacement or erosion;

(b) Are determined to be compatible with drinking water; and

(c) Are designed in a manner which ensures that a chlorine residual of not less than 0.05 mg/l is maintained at all times and at all locations in the distribution system.

3. The supplier of water shall provide and maintain a kit of spare parts for all chlorinators which is adequate for the repair of any parts that are subject to wear and breakage. If the supplier of water does not have the ability to repair chlorinators in an expeditious manner, he must provide a complete backup set of equipment for chlorination.

4. The application of chlorine must be by automatic control, except that manual control may be used where a system for chlorination only treats water of reasonably constant flow and quality. If the application of chlorine is by automatic control:

(a) Flow proportional control must be used where the quality of the water is reasonably constant and the rate of flow is not reasonably constant; and

(b) Residual flow control must be used under other conditions.

5. The chlorine must be applied:

(a) Continuously at a point in such a manner that, based on the pH, temperature and biological quality of the water, the presence in the water of any ammonia or substances that produce taste or odor, and any other pertinent factors, will provide for the maximum period of contact and maximum mixing. Where necessary, appropriate baffles or methods of blending must be provided.

(b) In a manner that minimizes the formation of chloro-organic compounds that are significant to the public health.

(c) If ground water is being treated, by applying the chlorine at the wellhead, an inlet for a storage tank or a pipeline in a manner that will provide an adequate period of contact to inactivate enteric viruses and kill bacteria, parasites and other pathogens.

6. The piping for chlorinators must be designed in such a manner as to prevent contamination of the supply of treated water by water of uncertain or nonpotable quality. Unless otherwise approved by the health authority, only finished water may be used in a chlorinator.

7. The supplier of water shall:

(a) Provide equipment for testing chlorine residual which is capable of:

(1) Performing the procedures identified in *Standard Methods for the Examination of Water and Wastewater*; and

(2) Measuring chlorine residual to the nearest 0.05 mg/l or 0.05 ppm.

(b) If surface water is chlorinated, provide automatic recorders of chlorine residual.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66835 Use of gaseous chlorine: Training of personnel; compliance with requirements for safety; ensuring continuous disinfection. If gaseous chlorine is used for the disinfection of water:

1. The facilities that use gaseous chlorine must employ personnel who are trained in the safe handling of gaseous chlorine and in the operation and maintenance of the appropriate equipment for chlorination.

2. The supplier of water shall contact the fire authority to ensure compliance with any applicable requirements for safety. If there is any conflict between the requirements of the fire authority and the requirements of NAC 445A.6683 to 445A.66845, inclusive, the more stringent of those requirements applies.

3. An automatic system for switching between cylinders of gaseous chlorine must be provided where necessary to ensure continuous disinfection.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6684 Use of gaseous chlorine: Location, storage and maintenance of equipment.

1. Except as otherwise justified by an engineer and approved by the health authority, gaseous chlorine or equipment for the use of gaseous chlorine must not be located in a building where there are any living quarters.

2. Cylinders of gaseous chlorine:

(a) Must not be stored in areas where they are exposed to direct sunlight or are readily accessible to unauthorized persons.

(b) Must be isolated from the operating areas of a public water system and anchored or otherwise restrained, through the use of a chain or other device, to prevent their falling over. A valve stem wrench or valve handle must be maintained on each cylinder so that the supply of gaseous chlorine can be shut off quickly in the case of an emergency. The valve protection hood must be kept in place except when a cylinder is in operation.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66845 Use of gaseous chlorine: Chlorine room. In a facility of a public water system where gaseous chlorine is used for the disinfection of water:

1. The chlorinator, the cylinders of gaseous chlorine and a scale or other device suitable for determining the amount of gaseous chlorine contained in each cylinder must be kept above grade in a separate, reasonably gastight and corrosion-resistant room where:

(a) No ammonia is stored; and

(b) Any openings to the remainder of the facility are sealed.

2. The chlorine room must be provided with screened vents near the floor which terminate outdoors through a reasonably gastight duct at a point which is not less than 8 feet above the surrounding grade and where gaseous chlorine will not sink into spaces below the surface of the ground. Mechanical ventilation must be used. The exhaust system must be capable of providing not less than one air change per minute in the room.

3. The door to the chlorine room must open outward to the exterior of the building and be equipped with a push bar for quick exit. The room must be equipped with a latch that locks by key in such a manner that the key can be inserted in the lock outside of the door to the room. The room must be locked at all times except when personnel are inside.

4. A shatter-resistant window must be provided in the wall or door of the chlorine room. The window must provide a clear and unobstructed view of the inside of the room and be not less than 256 square inches in size. Adequate artificial illumination must be provided to allow the observation and maintenance of the equipment in the room.

5. Switches for the operation of the exhaust fan and the artificial illumination must be located on the outside of the chlorine room.

6. The floor area of the chlorine room must be of adequate size to house the chlorinator, cylinders, scale and any appurtenances.

7. The device for feeding chlorine must be designed in such a manner that during accidents or interruptions in the supply of water, or a break in the system, the feeder positively and automatically shuts off the supply of gaseous chlorine and vents any leaking gas outside of the chlorine room at a safe point of discharge. Feed lines must not carry any pressurized gas outside the room. The room must be equipped with a properly functioning device for detecting any leakage of gaseous chlorine which is acceptable to the health authority and which includes an audible and visual alarm and a telemetric device that automatically dials the telephone number of a responsible person. A leakage test kit, consisting of a 56-percent solution of ammonia and a sponge swab, must also be provided and used.

8. The chlorinator must be of a solution-feed type which is designed to prevent backflow and capable of delivering chlorine at its maximum rate without releasing gaseous chlorine into the chlorine room. Pressure relief valves must discharge to the outside atmosphere in a safe area.

9. The temperature in the chlorine room must not fall below 55°F or the temperature that the manufacturer of the chlorinator indicates is necessary for the proper operation of the chlorinator, whichever is higher. A means to keep the temperature above that level must be provided. The

cylinders must be protected from direct sources of heat. Appropriate measures must be taken to avoid the condensation of chlorine in feed lines and associated equipment that can result when the feeding equipment is cooler than the cylinder.

10. Two self-contained breathing apparatuses, which are designed for use in a chlorine atmosphere and of a type compatible with any applicable requirements of the fire authority and state and federal standards for occupational safety and health, must be located outside of the chlorine room in a closed, unlocked cabinet or similarly secure place. A cylinder of compressed air, for replacement of the cylinders attached to the self-contained breathing apparatuses, and a record book for recording any use of the apparatuses, must also be kept in the cabinet or similarly secure place.

11. There must be posted:

(a) Outside of the chlorine room, a description of the first-aid measures for treating victims of chlorine exposure and the telephone number of the supplier of the gaseous chlorine.

(b) On the door to the chlorine room, in a location where it is readily visible to any person approaching the door, a sign stating "CAUTION - CHLORINE GAS" and "DANGER." The telephone numbers of persons to contact in case of a leak or other emergency must be prominently displayed on or near the sign.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6685 Use of sodium hypochlorite. If sodium hypochlorite is used for the disinfection of water, the supplier of water shall:

1. Take appropriate actions to prevent the natural decomposition of the sodium hypochlorite, including:

(a) Obtaining fresh sodium hypochlorite.

(b) Using the sodium hypochlorite as soon as practicable after it is manufactured. Containers of sodium hypochlorite must indicate the date when the sodium hypochlorite was manufactured.

(c) Shielding tanks for the storage of sodium hypochlorite from sunlight.

(d) Storing the sodium hypochlorite at a low temperature.

(e) Maintaining a pH between 12 and 13 when diluting the sodium hypochlorite for storage.

2. Keep the sodium hypochlorite away from any equipment, piping or wiring that is susceptible to damage from corrosion.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66855 Water wells: General requirements. If a water well is used as a source of water for a public water system, the water well must comply with:

1. The provisions of NAC 445A.66855 to 445A.6693, inclusive;

2. All of the provisions of American Water Works Association Standard A100 that do not conflict with any of the provisions described in subsection 1; and

3. All of the provisions of chapter 534 of NAC that do not conflict with any of the provisions described in subsections 1 and 2.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6686 Water wells: Establishment of redundant capacity for development and treatment of water. A health authority may require a supplier of water to establish a redundant capacity for the development and treatment of water if:

1. A water well is the sole source of water for the public water system; and

2. Based upon the remoteness of the facilities, availability of spare parts, access to equipment and other factors in a particular case, the health authority determines that the redundancy is desirable to protect the public health and ensure the availability of safe and reliable drinking water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66865 Water wells: Location.

1. Before designing and carrying out a proposal for the location of a water well, a supplier of water shall:

(a) Submit to the health authority information on any flood zone that includes the proposed location; and

(b) In consultation with the health authority, identify all potential sources for the pollution or contamination of ground water at the proposed location.

2. Except as otherwise justified by an engineer and approved by the health authority, no water well may be located:

(a) Within 50 feet of a gravity sanitary sewer or gravity storm sewer; or

(b) Within 150 feet of a wastewater force main, wastewater lift station, septic tank or absorption field, or any other source of pollution or contamination.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6687 Water wells: Prohibited types. A supplier of water shall not use a drive point water well, a dug water well or a jetted water well as a source of water for the public water system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66875 Water wells: Documentation of right to divert water. Before a public water system uses a water well as a source of water, the supplier of water shall submit to the health authority documentation indicating that the supplier of water has a legal right to divert water from the well for municipal, quasi-municipal or domestic purposes.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6688 Water wells: Determination and reporting of yield characteristics of well. After the construction of a water well and before the attachment of a permanent pump to the well, the supplier of water shall:

1. Cause a step drawdown test and a constant discharge aquifer test, or another engineering investigation or analysis suitable for determining the characteristics of the well for the production of water, to be performed on the well and submit the results of the tests, investigation or analysis to the health authority. The supplier of water shall coordinate its activities with the division of environmental protection to ensure that any discharge of water resulting from the tests, investigation or analysis will not violate any standards for water quality.

2. Determine the well yield for the well and submit that information to the health authority.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66885 Water wells: Prerequisites to use after construction, modification or reconditioning.

1. After the construction of a water well is completed and before any water from the well is allowed to enter a public water system, the supplier of water shall:

(a) Submit to the health authority a copy of a chemical analysis conducted by a properly certified laboratory which indicates that the water complies with the provisions of NAC 445A.450 to 445A.492, inclusive; and

(b) If the supplier of water proposes to blend, dilute or otherwise treat the water to attain compliance with any of those provisions:

(1) Submit to the health authority a complete description of the proposal, as prepared by an engineer; and

(2) Obtain the approval of the proposal by the health authority.

2. After the construction of any modification or reconditioning of a water well is completed and before the well is placed into service:

(a) The well and any associated pumping equipment must be disinfected in compliance with American Water Works Association Standard C654; and

(b) A satisfactory bacteriological analysis of a sample of the water from the well must be submitted to the health authority.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6689 Water wells: Casing.

1. Except as otherwise provided in subsection 2, a water well must be cased to the bottom of the drill hole and constructed in such a manner as to prevent any pollution or contamination of the ground water.

2. If no additional water is developed in the bottom portion of a water well, neat cement, cement grout or concrete grout may be placed by tremie pipe from the total depth to the bottom of the casing.

3. The casing must:

(a) Be composed of:

(1) A quality of steel that complies with American Water Works Association Standard A100; or

(2) Where authorized by the division of water resources of the state department of conservation and natural resources, a quality of PVC that complies with American Water Works Association Standard A100.

(b) Be free of pits and breaks.

(c) Conform to the following minimum specifications, allowing for mill tolerance:

(1) If the conductor casing is 50 feet or less in depth, the wall of the casing must be at least 0.141 or 9/64 of an inch thick.

(2) Except as otherwise provided in subparagraph (3), if the depth of the conductor casing exceeds 50 feet, and for all production or intermediate casing, the wall of the casing must comply with the following requirements:

(I) If the nominal size of the casing is smaller than 10 inches, the wall must be at least 0.188 or 3/16 of an inch thick.

(II) If the nominal size of the casing is 10, 12, 14 or 16 inches, the wall must be at least 0.250 or 1/4 of an inch thick.

(III) If the nominal size of the casing is 18 or 20 inches, the wall must be at least 0.312 or 5/16 of an inch thick.

(IV) If the nominal size of the casing is larger than 20 inches, the wall must be at least 0.375 or 3/8 of an inch thick.

(3) If the depth of the well exceeds 300 feet, the thickness of the wall of the casing must be increased in accordance with American Water Works Association Standard A100.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66895 Water wells: Prevention of pollution and contamination.

1. Drilling fluids and additives must not impart any substances into the water which will cause or promote any pollution or contamination.

2. If inferior quality water is encountered at any time during the construction of a water well, the aquifers containing that water must be adequately cased or sealed off in such a manner that the water cannot enter the well or move either up or down the annular space outside the casing of the well. If necessary to prevent the movement of that water, appropriate packers or seals must be installed.

3. If a gravel-packed well encounters inferior quality water, the aquifers containing that water must be sealed off by pressure grouting, or with appropriate packers or seals, in such a manner as to prevent that water from moving vertically in the gravel-packed portions of the well.

4. As used in this section, “inferior quality water” means any mineralized water or water known to be polluted or contaminated.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66905 Water wells: Seals and coatings.

1. Except as otherwise provided in subsection 4 and NAC 445A.6691, a water well must have a sanitary seal consisting of neat cement, cement grout or concrete grout from a depth of not less than 50 feet below the surface to ground level, constructing the sanitary seal from bottom to top. If grout is used, contact must be ensured between the grout and the native formation. The sanitary seal must have a minimum thickness of 2 inches in the annular space of the well. The casing must be centered as nearly as practicable in the drill hole in such a manner as to allow the sanitary seal fully to surround the casing. Dry cement must not be placed in the annular space for use as a sanitary seal.

2. Before any product may be used to coat, seal, patch or otherwise become attached to the surface of any material used to construct a water well in such a manner that the product will come into contact with drinking water, the product must be determined to be compatible with drinking water.

3. If a permanent conductor casing is used in a water well, a watertight seal, consisting of concrete or a welded plate, must be placed at the surface level between the conductor casing and the production casing in such a manner as to prevent any pollutants or contaminants from entering the area of gravel pack.

4. If a pitless adapter is used in the construction of a water well:

(a) The sanitary seal must begin not more than 5 feet below the ground, be continuous and extend at least 50 feet; and

(b) The exterior portion of the casing above the sanitary seal must be refilled to ground level with native material.

5. Any pipe used to feed gravel through the sanitary seal of a water well or to provide access to the interior of a water well must be fitted with a watertight cap.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6691 Water wells: Construction near certain other sources of water. If a water well is drilled within 1/4 mile of a perennial stream, river, lake, unlined reservoir or unlined canal:

1. There must be no perforations in the production casing from ground level to a depth of 100 feet.

2. The well must have a sanitary seal to a depth of 100 feet.

3. A permanent conductor casing may be used to convey the gravel pack to the 100-foot level.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66915 Water wells: Slabs and pedestals; construction with lineshaft turbine pump or submersible pump.

1. A water well with an above-ground discharge must be protected by a concrete slab and, if the well is equipped with a lineshaft turbine pump, with a concrete pedestal, both of which are constructed of continuously poured concrete. The pedestal must be of a sufficient diameter to extend at least 3 inches beyond the outer periphery of the sanitary seal. The slab must:

(a) Be placed above the finished grade;

(b) Have a minimum thickness of 6 inches;

(c) Slope away from the pedestal at a minimum slope of 2 percent;

(d) Extend a minimum of 4 feet from the casing of the well in all directions; and

(e) Be free from cracks and other defects likely to detract from its capability to remain watertight.

The casing of the well must extend to a height of at least 12 inches above the slab and at least 18 inches above the level of the final ground surface or 100-year floodplain, whichever is greater.

2. If a water well is equipped with a lineshaft turbine pump:

(a) The top of the casing must be sealed into the base of the pump or the casing must be inserted into a recess extending at least 1 inch into the base of the pump.

(b) The foundation and base of the pump must be designed in such a manner as to prevent water from coming into contact with joints between the base of the pump and the casing, and from entering the well.

3. Any submersible pumps installed in a water well must be constructed in accordance with American Water Works Association Standard E101.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6692 Water wells: Access port or sounding tube; vent.

1. Except as otherwise provided in subsection 2, a water well must have an access port which can be used for measuring the level of water. If the diameter of the casing is:

(a) No greater than 8 5/8 inches, the access port must:

(1) Be 1 inch in diameter and located at the top or in the cover of the casing; and

(2) Have a removable plug or bolt installed in such a manner as to prevent pollutants and contaminants from entering the well.

(b) Greater than 8 5/8 inches, the access port must:

(1) Be 2 inches in diameter and located near the top of the casing; and

(2) Have a watertight, screw-type cap which is:

(I) Sealed in such a manner as to prevent pollutants and contaminants from entering the well; and

(II) Kept sealed when not being used for measuring the level of water.

2. If the diameter of the casing of a water well is greater than 8 5/8 inches, the well may be equipped with a sounding tube, in lieu of an access port, which is:

(a) Not less than 3/4 inch nor more than 1 inch in diameter; and

(b) Installed in such a manner as to:

(1) Preclude the entanglement of the sounder around the drop pipe or in the wires of any submersible pump; and

(2) Prevent any interference with cascading water.

3. A water well must be equipped with:

(a) A vent that:

(1) Extends above the wellhead;

(2) Is elbowed toward the ground in the shape of an inverted “J”; and

(3) Is covered with a screen that is not susceptible to damage by corrosion and has not less than 22 nor more than 24 mesh per inch; or

(b) An air and vacuum valve that is attached to discharge piping.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66925 Water wells: Pumping to system for waste. A water well must be equipped in such a manner as to be able to pump to a system for waste, in addition to the system for distribution, to allow flushing of the well. Piping that discharges into the system for waste:

1. Must not be connected directly to a sanitary sewer or storm sewer; and

2. Must be equipped with:

(a) An air gap; and

(b) An angled flapper valve on the opening for discharge.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6693 Water wells: Sampling tap. A water well must be equipped with a means for sampling the quality of water, consisting of a smooth-nosed sampling tap located on the discharge piping at a point where pressure is maintained.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66935 Springs: General requirements. If a spring is developed as a source of water for a public water system, the supplier of water shall:

1. Select a spring with an adequate capacity to provide the required quantity and quality of water throughout the intended period of use;

2. Protect the sanitary quality of water in the spring in compliance with NAC 445A.495 to 445A.540, inclusive;

3. Comply with the provisions of NAC 445A.66935 to 445A.6696, inclusive; and

4. Take such measures as are appropriate for the unique geological conditions and sources of the spring.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6694 Springs: Prerequisites to development; reports after development; approval for use.

1. Before commencing the construction of any improvements for the development of a spring as a source of water for a public water system, the supplier of water shall submit to the health authority for its review and approval:

(a) Detailed plans and specifications for the work.

(b) The statement of an engineer indicating the measured or anticipated rate and quantity of flow from the spring.

(c) Documentation that the supplier of water has a legal right to divert water from the spring for municipal, quasi-municipal or domestic purposes.

(d) The results of an analysis of water quality, performed by a properly certified laboratory, which demonstrates that the water complies with the provisions of NAC 445A.450 to 445A.492, inclusive.

(e) A map that shows the location of any source of pollution or contamination in the area and indicates the owner of the land where the source is located.

2. After the development of a spring as a source of water for a public water system, the supplier of water shall submit to the health authority:

(a) A microscopic particulate analysis which shows that the water from the spring is not ground water under the direct influence of surface water.

(b) Information regarding the rate of flow developed from the spring.

(c) A depiction of the development of the spring as built.

3. Water from a spring must not be introduced into a public water system until the use of the water is approved, in writing, by the health authority.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66945 Springs: Establishment of zone of protection.

1. If a spring is used as a source of water for a public water system, the supplier of water shall establish a zone of protection for the spring, as determined by technically defensible analyses of the specific conditions of the site, to protect the source of water from the establishment of a source of pollution or contamination. To ensure the availability of that protection, the supplier of water shall:

(a) Execute a written agreement not to locate or permit a source of pollution or contamination within any part of the zone of protection he owns; and

(b) Obtain the written agreement of all other owners of land within the zone of protection not to locate or permit a source of pollution or contamination within the zone of protection.

2. The agreements required by subsection 1 must be binding on all heirs, successors and assigns of the property owners, and:

(a) If the property is not public land, recorded in the office of the county recorder of each county in which the property is located, together with a description of the property. A copy of the recorded instrument must be submitted to the health authority for its review.

(b) If the property is public land, a copy of the written agreement must be submitted to the health authority for its review.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6695 Springs: Allowance of source of pollution or contamination within zone of protection.

1. Except as otherwise provided in subsection 2, no source of pollution or contamination is allowed within a zone of protection established pursuant to NAC 445A.66945.

2. The health authority may:

(a) Allow sewer lines within the zone of protection, subject to such precautionary conditions as the health authority deems appropriate.

(b) Authorize other exceptions to the provisions of subsection 1 if the health authority determines, after evaluating the particular situation in each case, that there are special circumstances which justify each exception.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66955 Springs: Covering of device for collection of water. Except as otherwise justified by an engineer and approved by the health authority, a device for the collection of water from a spring which is used as a source of water for a public water system, whether the device consists of collection tile, perforated PVC, infiltration boxes or tunnels, must be:

1. Covered with a minimum of 10 feet of impervious soil cover that extends a minimum of 15 feet in all horizontal directions up gradient from the device for the collection of water; or

2. Where it is impossible to comply with the requirements of subsection 1, covered with an impermeable liner. If an impermeable liner is necessary:

(a) The liner must have a total thickness of at least 12 mils and all seams of the liner must be folded or welded in such a manner as to prevent leakage.

(b) The liner must be determined to be compatible with drinking water.

(c) The liner must be installed in such a manner as to ensure its integrity. There must not be any stones that are 2 inches or more in any dimension, or that have any sharp edges, located within 6 inches of the liner.

(d) A minimum of 2 feet of relatively impervious soil cover must be placed over the liner.

(e) The liner and soil cover must extend a minimum of 15 feet in all horizontal directions up gradient from the device for the collection of water.

If warranted by the physical circumstances of a particular spring, the health authority may require more stringent criteria for the design of an impermeable liner than the criteria set forth in this subsection.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6696 Springs: Development. Except as otherwise justified by an engineer and approved by the health authority, if a spring is used as a source of water for a public water system:

1. A diversionary channel must be constructed in such a manner as to be capable of diverting from the area of the spring all anticipated runoff of surface water.

2. Each area for the collection of water from the spring must have at least one junction box, which can be locked, suitable for the inspection of the spring and the testing of water from the spring.

3. All collection boxes and junction boxes must incorporate access by manholes, air vents and overflow piping. The lids for those boxes must be gasketed, and the chambers of those boxes adequately screened and vented. Vents must be elbowed downward and placed not less than 12 inches nor more than 18 inches off the ground.

4. Any vegetation which is located within 100 feet of the spring and has a root system greater than 2 feet in length must be removed.

5. A permanent device for measuring the flow of water must be installed. The device, which may consist of a weir, must be properly housed and otherwise protected.

6. The spring must be developed in such a manner as to eliminate, as thoroughly as possible, the ponding of water within the area for collection. Where the ponding of water is unavoidable, the excess must be collected as drainage and routed down gradient beyond the immediate area

for collection in a controlled manner which avoids the possibility for pollution or contamination of the spring.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66965 Pumping facilities: General requirements. A supplier of water shall ensure that:

1. Each pumping facility of the public water system is designed and constructed in compliance with the provisions of NAC 445A.66965 to 445A.6706, inclusive.
2. The design of the pumping facilities of the public water system are appropriate to maintain requirements for the quality, quantity and pressure of water.
3. Except as otherwise justified by an engineer and approved by the health authority, the public water system does not use any pumps installed in subsurface vaults.
4. If it is necessary to install any pumps in suction lift, appropriate priming systems are provided.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6697 Pumping facilities: Location of pumping stations. Pumping stations must be located in such a manner that:

1. The hydraulic requirements of the public water system are met.
2. The pumping stations are protected from flood, fire and other hazards.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66975 Pumping facilities: Construction of sites for pumping stations. The site of the pumping station must be constructed in such a manner that:

1. The pumping station is readily accessible at all times.
2. The pumping station is protected from vandalism and entry by animals and unauthorized persons.
3. The elevation of the pumping station is at least 3 feet above the level of the 100-year floodplain or the pumping station is protected from a flood of that elevation.
4. The finished grade of the site directs surface drainage away from the pumping station.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6698 Pumping facilities: Intakes.

1. A pumping station must, if it pumps surface water, use a type of intake that is appropriate for the type of pumping station. The intake must be protected in such a manner as to prevent any deterioration in the sanitary quality of the pumped water.
2. Except where surface water is obtained by direct suction from an adjacent supply, water must be conducted from its source through a watertight conduit by:
   (a) Gravity into a suction well located in or adjacent to the pump house; or
   (b) Submersible pumps or booster pumps.
3. Intakes for obtaining water from a lake or reservoir other than Lake Mead must be designed in such a manner that:
   (a) The intake is submerged at least 15 feet below the surface, is located at least 4 feet off the bottom and extends into the water at least 1,000 feet from the shore.
   (b) If the quality of the water varies with depth, the intake can withdraw water from more than one level.
   (c) The intake has a diversionary device that:
      (1) Prevents the intake of fish and debris; and
      (2) Is designed and located in such a manner as to prevent damage from marine vehicles and anchors.
   (d) The intake is located away from any creek, drainage, marina, on-shore sewerage infrastructure or other source of pollution or contamination.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66985 Pumping facilities: Housing of pumping stations. A pumping station must, whether it pumps raw water or finished water, comply with the following requirements:

1. The pumping station must be housed in a building that is weather-resistant and of durable construction. The building must have outward-opening doors with tamper-proof hinges.

2. The floors must be:

(a) Elevated at least 6 inches above the finished grade; and

(b) Drained in such a manner that the quality of finished water is not endangered. All floors must slope at least 1/8 inch per foot to a suitable drain, preferably to daylight.

3. There must be a suitable outlet for drainage from stuffing boxes and air release valves that has an air gap and does not discharge onto a floor.

4. There must be adequate space, access hatches and doors for the installation of additional pumping units, if necessary, and for the convenient and safe servicing of all equipment. Embedded lifting eyes, crane ways or hoist rails must be provided above the locations where pumps are installed in a building, and an access or passageway must be provided, to facilitate the removal of the pumps, motors and heavy equipment for servicing or repair.

5. Any underground structures must be externally waterproofed.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6699 Pumping facilities: Suction wells and clear wells.

1. Each suction well or clear well must:

(a) Be watertight.

(b) Have a floor that is sloped in such a manner as to allow the removal of water and settled solids.

(c) Be covered and otherwise protected from contamination.

(d) Be arranged in a manner that conforms to the criteria specified by the manufacturers of the pumps for the well.

(e) If water cascades into the well or enters at such a velocity as to entrain air, have alternating floor and roof baffles in the basin of the well.

2. Each clear well must be placed above the highest anticipated elevation of the ground water.

3. Each suction well must include at least two compartments, such that one compartment can be taken out of service for cleaning, maintenance and repair.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.66995 Pumping facilities: Pumps. A supplier of water shall ensure that, with regard to the pumps used by the public water system:

1. Each pump is suitable for its intended purpose, has an adequate capacity for its intended purpose and is installed in accordance with the directions of the manufacturer.

2. When the pressure in a distribution system is dependent exclusively on a pumping station, at least two pumping units are used unless the required quantity and pressure of water can be supplied by other facilities in the public water system during any period that can reasonably be expected necessary to complete the repair of one pump.

3. Power to drive a pump at maximum horsepower is provided by a suitably sized prime mover.

4. Spare parts and tools are readily accessible.

5. Control equipment is provided with proper heaters or fuses for protection from overloads.

6. If a lineshaft turbine pump has oil-lubricated bearings, the grade and designation of the oil is approved by the health division.

7. If a pump is used to pressurize a small system that may experience periods of zero flow, the pump has a small relief bypass to prevent the overheating of water in the pump.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67005 Pumping facilities: Priming.

1. Priming must be conducted in such a manner that:

(a) The water used for priming is of no less a sanitary quality than that of the water being pumped.

(b) There is a means to prevent backflow.

(c) In installations where a centrifugal pump is used and air binding or the accumulation of air is a problem, there is a means to remove the air from the eye of the impeller.

(d) Where vent lines discharge to a drain, the vent lines are designed with an air gap.

2. This section does not prohibit the use of self-priming pumps.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6701 Pumping facilities: Booster pumps. Booster pumps must be located or controlled in such a manner that:

1. Except for pumping stations which draft from storage tanks, the intake pressure is at least 30 psi when the pump is in operation during peak hour demand.

2. If necessary, a bypass is available for use.

3. A device for automatic control prevents excessive cycling.

4. If a booster pump provides water directly to an individual building:

(a) The supplier of water is able to demonstrate that the pump will not jeopardize the sanitary quality of the public water system.

(b) The pump will not reduce the water pressure in the distribution main to less than 40 psi.

(c) A double check valve assembly is installed at the meter or service line.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67015 Pumping facilities: Alarm system. If a pumping station has an automatic control, the station must have an alarm system that alerts the supervisor of the station or another person responsible for the operation of the station regarding any malfunction that could compromise the capability of the public water system to operate as intended.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6702 Pumping facilities: General requirements for piping system. The piping system of a public water system, including any piping used for suction, discharge, priming, seal water and the control of flow and pressure, must:

1. Be designed in such a manner as to minimize head loss.

2. Not be subject to pollution or contamination.

3. Be designed and constructed with watertight joints.

4. Be protected against surge pressure, vacuum pressure and water hammer.

5. Be equipped with means for the removal of entrapped air.

6. Be designed in such a manner that each pump has an individual suction line or the suction lines are equipped with a header that ensures similar hydraulic and operating conditions.

7. Be protected against freezing.

8. Be properly bedded in such a manner as to prevent damage.

9. Have taps for the sampling of water quality.

10. Be restrained and supported in such a manner as to prevent movement.

11. Be constructed with the appropriate pipes and valves to provide for its satisfactory operation, maintenance and repair at all times.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67025 Pumping facilities: Suction piping. Except as otherwise justified by an engineer and approved by the health authority, a supplier of water shall ensure that, with regard to the suction piping of the public water system:

1. The velocity of water in the piping does not exceed 3 feet per second.

2. The diameter of the piping is at least 2 inches greater than that of the inlet for the pump.

3. The reducer between the piping and the pump is an eccentric reducer and not a concentric reducer.

4. A fitting is installed between the inlet valve and pump which will allow easy removal of the pump. For pumps in suction lift, unions must not be used, and valves, except for foot valves, must not be installed on suction lines.

5. There is a continuous slope up from the surface of the water to the pump. The suction line must be as straight as possible, and the restriction of suction must be minimized.

6. If there is a valve on the suction line, there is installed between the valve and the pump, preferably on a spool, a gauge that:

(a) Operates within the appropriate range of pressure; and

(b) Is equipped with a pet cock or ball valve. Except when the gauge is being read, the pet cock and ball valve must remain closed.

7. If elbows are required in the suction line, the elbows are of a sufficiently long radius to minimize head loss.

8. Each inlet of a suction pipe in a suction well or clear well is:

(a) Bell-shaped in such a manner as to reduce head loss at the entrance. Square-cut inlets are prohibited.

(b) Adequately submerged, in accordance with the specifications of the manufacturer, at a depth of at least six times the diameter of the pipe.

(c) Located away from:

(1) The floor of the suction well or clear well at a distance specified by the manufacturer of the pump or, in the absence of such a specification, at a distance of not less than four nor more than five times the diameter of the pipe.

(2) The sidewall of the suction well or clear well at a distance specified by the manufacturer of the pump or, in the absence of such a specification, at a distance of not less than one-half the diameter of the pipe nor more than the diameter of the pipe.

9. If an inlet screen is installed:

(a) The inlet screen is designed in such a manner that an adequate flow can enter the pump when half of the screen is plugged.

(b) The diameter of the screen inlet is at least three times the diameter of the suction pipe inlet.

10. If a foot valve is used, the diameter of the foot valve is at least 2 inches greater than that of the inlet piping.

11. If a pump is connected to a header used for suction:

(a) The connection is at an angle relative to the header of not less than 30 degrees nor more than 45 degrees; or

(b) If it is necessary to connect the pump to the header at an angle of 90 degrees, the pump is located away from the header at a distance of at least eight times the diameter of the suction pipe.

12. If a pump is in suction head, a valve is installed in the suction line to facilitate the removal of the pump for maintenance. The valve must not be used to throttle the pump.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6703 Pumping facilities: Discharge piping. Except as otherwise justified by an engineer and approved by the health authority, a supplier of water shall ensure that, with regard to the discharge piping of the public water system:

1. A concentric reducer or eccentric reducer is installed at the pump, such that the diameter of the discharge pipe is at least 2 inches greater than that of the discharge of the pump.

2. A fitting, which may consist of a spool or union, is installed on a discharge pipe to facilitate the removal of the pump. A gauge with a pet cock or ball valve must also be installed on the discharge pipe.

3. A check valve or other suitable type of valve is installed just beyond the fitting required by subsection 2, to prevent the reversal of flow through the pump. On pumping installations of:

(a) Low pressure, a swing check valve may be used.

(b) High pressure, a silent check valve or automatic check valve, or another suitable valve, must be used. The engineer who designs such an installation shall seek to minimize the potential for water hammer.

4. Another valve is installed just beyond the check valve required pursuant to subsection 3, to isolate the discharge and to provide for a positive shutdown of the system when repair is required.

5. Isolation valves are not used for the control of flow or pressure and remain only in a fully open or a fully closed position. If the control of flow or pressure is desired, other valves must be installed.

6. The piping is arranged in such a manner as to avoid high spots. An air and vacuum valve, which is piped to a drain, must be provided.

7. The piping is rigidly supported and restrained in such a manner as to prevent movement.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67035 Pumping facilities: Gauges and meters.

1. Each pump must:

(a) Have a standard pressure gauge on its discharge line located upstream from any check valve.

(b) Except for a vertical turbine pump, have a:

(1) Standard pressure gauge on its suction line if the pump is in suction head; or

(2) A compound pressure gauge on its suction line if the pump is in suction lift.

2. Each pumping station must have a device for measuring the rate of flow of discharge and the total flow.

3. A meter or flow sensor must have straight pipes installed both upstream and downstream. The length of the pipes must:

(a) Comply with the specifications of the manufacturer of the meter or flow sensor; or

(b) In the absence of those specifications, be at least five times the diameter of the pipes.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6704 Pumping facilities: Seal water.

1. A supplier of water shall ensure that mechanical seals and packing receive clean seal water, from a volute or an external source, for cooling and flushing. The seal water must not be of a lesser sanitary quality than that of the water being pumped.

2. Where potable water is used as seal water and the water being pumped is of lesser sanitary quality, the line for the delivery of the seal water to the stuffing box must have a reduced pressure principle assembly or air gap.

3. Where seal water is obtained from an external source, the line for the delivery of the seal water must be equipped with a pressure gauge at the stuffing box. The pressure of the seal water must be not less than 10 psi nor more than 15 psi higher than the pressure of the stuffing box and cause the water to flow from the stuffing box into the volute. Seal water must be obtained from an external source when the suction lift is such that there could be difficulty in priming as a result of leakage through the stuffing box.

4. A supplier of water shall provide collection piping, which discharges into a drain, to accommodate any leakage from a stuffing box.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67045 Pumping facilities: Controls.

1. The flow and pressure of a public water system must be controlled by the appropriate use of piping, valves and automatic control.

2. Pumps and their prime movers and appurtenances must be controlled in such a manner that they will operate at their rated capacity without sustained overload. There must be a means to prevent a motor from energizing if a backspin cycle occurs.

3. Electrical controls must be located above grade.

4. There must be a means of protection against low voltages and the failure of phase. Surge arrestors must be provided for protection from power surges.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6705 Pumping facilities: Power.

1. The source of power for a pumping system must be electric, except that the health authority may authorize the use of an alternative source of power where warranted. Alternative sources of power must be installed in accordance with applicable electrical, building and mechanical codes.

2. Where a failure of power would cause the public water system to cease its minimum essential service:

(a) The supply of power must be provided by at least two independent sources; or

(b) A standby or auxiliary source of power must be provided.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67055 Pumping facilities: Heating, ventilation and lighting.

1. If any equipment of a pumping system is used during winter, the equipment must be adequately heated in a manner that ensures the safe and efficient operation of the components of the pumping system. If a pump house is not occupied by any personnel, the heat must only be sufficient to prevent any freezing of the equipment and processes for treatment. If a pumping installation will not be used during winter, the equipment must be isolated and drained in such a manner as to prevent damage from freezing.

2. A pumping station must have adequate ventilation, as provided by windows, doors, roof ventilators and other means. Except as otherwise approved by the health authority, forced ventilation that results in at least six changes of air per hour must be provided for all rooms, compartments, pits, vaults and other enclosures below the ground floor, and in any area where an unsafe atmosphere may develop or excessive heat may build up.

3. A pumping station must be adequately lighted in a manner that provides a safe and functional environment for work. The electrical wiring for the lighting system must conform to applicable electrical and building codes.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6706 Pumping facilities: Hydropneumatic systems.

1. Hydropneumatic systems:

(a) Must not be used in a public water system with 150 or more service connections.

(b) Shall be deemed inadequate for protection from fire and the storage of water.

2. If a hydropneumatic system is used:

(a) The tank and its appurtenances must be completely housed and, except as otherwise approved by the health authority, located above the normal surface of the ground. If the health authority authorizes the location of the tank or any appurtenances below the ground, there must be adequate drainage, heating, ventilation, lighting, maintenance and protection from flood.

(b) The hydropneumatic system must be designed to provide a minimum pressure of at least 30 psi at all points in the distribution system during peak hour demand. A pressure gauge must be installed on the inlet line for the pressure tank.

(c) The pressure tanks must be constructed in such a manner that:

(1) The tanks meet anticipated requirements for pressure.

(2) The interior coatings of the tanks are determined to be compatible with drinking water.

(3) The tanks are equipped with a 24-inch access manhole, a drain, control equipment that consists of a pressure gauge, a glass for sighting water, an air blowoff and a means for adding air, and pressure-operated controls for starting and stopping the pumps.

(4) Bypass piping is provided that will facilitate the repair or coating of the tanks.

(5) The amount of the gross volume, as expressed in gallons, of the hydropneumatic tank is at least ten times the amount of the capacity, as expressed in gallons per minute, of the largest pump in the hydropneumatic system.

(d) At least two pumping units must be provided. The capacity of the wells and pumps in the hydropneumatic system must be at least ten times the average day demand.

(e) The method used to adjust the volume of air must be approved by the health authority. The compressors must deliver an adequate volume of air, which has been filtered and is free of oil, to the pressure tank.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67065 Storage structures: General requirements.

1. The materials and design of storage structures must provide stability and durability, and protect the quality of the stored water.

2. Before a product may be used to coat, seal, patch or otherwise become attached to the interior surface of a storage structure, the product must be determined to be compatible with drinking water.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6707 Storage structures: Clear wells.

1. Clear wells must be sized in conjunction with any distribution storage in such a manner that the components of the public water system for the acquisition and treatment of water will not be required directly to follow fluctuations in the use of water or directly to meet maximum day demand and peak hour demand.

2. The capacity of a clear well must be sufficient to provide for the storage of the amount of finished water required for:

(a) Backwashing;

(b) Equalizing the storage of water necessary for the high-service pumping station of a treatment facility; and

(c) The operation of a treatment facility, if necessary.

3. Finished water must not be stored or conveyed in a compartment that is adjacent to a compartment of untreated water unless the two compartments are separated by more than a single wall.

4. If a clear well is used to provide the period of contact required for disinfection, the clear well must be designed in such a manner that it is of the appropriate size and has such baffles as are necessary to accomplish that function.

5. Clear wells must be designed in such a manner as to assist the public water system in maintaining its total capacity when filters or processes for treatment fail.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67075 Storage structures: Materials.

1. Except as otherwise provided in subsection 3, storage tanks must:

(a) Consist of welded steel and comply with American Water Works Association Standard D100;

(b) Consist of factory-coated, bolted steel and comply with American Water Works Association Standard D103;

(c) Consist of reinforced concrete of portland cement;

(d) Consist of prestressed concrete and comply with American Water Works Association Standard D110; or

(e) Consist of fiberglass-reinforced plastic and comply with American Water Works Association Standard D120.

2. Reservoirs with floating covers may be used for the storage of water only if approved by the health authority after evaluation on a case-by-case basis. If so approved, such a reservoir must have a lining and cover composed of a flexible membrane which conforms to the requirements of:

(a) Standard 54 of the American National Standards Institute and the National Sanitation Foundation International; and

(b) American Water Works Association Standard D130.

3. The health authority may authorize a public water system to use a storage tank composed of galvanized steel if:

(a) The plans and specifications for the tank are submitted to the health authority.

(b) The tank is assembled and hot-dip galvanized, and any other coating is applied, at a factory. The tank must not be modified at another location unless the modification is inspected by an engineer and approved by the health authority.

(c) Any material used to coat the tank is determined to be compatible with drinking water. Before being introduced into service, the tank must be sampled for the presence of volatile organic chemicals.

(d) An analysis of the quality of water in the tank demonstrates that the stored water will not corrode the tank and the only material used to coat the tank is a galvanized coating.

(e) The construction of the tank complies with American Water Works Association Standard D103.

4. This section does not:

(a) Prohibit a health authority from:

(1) Disallowing the use of galvanized storage tanks in a public water system; or

(2) Imposing more stringent requirement for the construction of a galvanized storage tank.

(b) Apply to the use of galvanized tanks for any purpose other than the storage of water for a public water system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6708 Storage structures: Design and construction.

1. Storage tanks must:

(a) Be designed by an engineer, structurally competent and constructed of materials that are acceptable to the health authority.

(b) Employ a foundation that is appropriate for the type of tank and complies with the American Water Works Association Standards.

2. A supplier of water shall provide means for the drainage of storage structures. Storage structures that provide pressure directly to the distribution system must be designed in such a manner that they can be isolated from the distribution system and drained for cleaning or maintenance without any loss of pressure in the distribution system.

3. Storage structures must have a device for overflow that is brought down to an elevation of not less than 12 inches nor more than 24 inches above the surface of the ground, is sloped for complete drainage and discharges over a drainage inlet, plunge pool or splash plate without causing erosion. The outlet of the drain must be protected with an angled flapper valve and located in such a manner that any discharge is visible. The device must be sufficiently large to dispose of overflow at a rate that equals the maximum rate for filling the structure. The device must have an air gap and must not discharge directly into a sanitary sewer or a storm sewer. Discharge from the device must be controlled in a manner that does not present a hazard to or cause a nuisance for any existing or contemplated development of property.

4. Storage tanks must contain vents that:

(a) Prevent external pressures from causing the tank to buckle; and

(b) Are designed in such a manner as to:

(1) Prevent the entrance of rain and surface water; and

(2) Exclude dust, birds, insects and other animals as much as possible.

For the purposes of this subsection, “vent” does not include a device for overflow.

5. Vents, devices for overflow, drain outlets and other openings in a storage tank must be constructed and located in such a manner as to protect the stored water from contamination. Top and side vents must be screened and turned downward, except that mushroom vents in the center of the roof are acceptable. Screens used for venting air must be constructed of a stainless steel that is not susceptible to damage by corrosion and must have not less than 22 nor more than 24 mesh per inch. Drain outlets must have an air gap. Vents in buried structures must be not less than 24 inches nor more than 36 inches above the finished grade.

6. The discharge pipes from all storage structures must be located in a manner that will prevent the flow of sediment into the distribution system. A removable silt stop, of not less than 4 inches nor more than 6 inches, must be installed on the floor of a storage structure over the discharge pipe.

7. Storage structures must have a device for indicating the level of water in the structure. Automatic controls and set points must be provided which are adequate to maintain the level of water. Alarms to indicate respectively that the level of the water is too high or too low must be installed in or transmitted by telemetry to a prominent location. The design and operation of such a structure must provide for an adequate turnover of stored water. If a public water system has two or more storage structures located at different hydraulic elevations, the health authority may require the public water system to install altitude control valves or similar controls.

8. Steel storage tanks must have:

(a) Two manholes, each with a diameter of 30 inches, in the side of the tank that allow entry into the interior of the tank for cleaning and maintenance.

(b) One manhole on the roof of the tank. The manhole must have a curbing or frame around its opening that:

(1) Extends at least 4 inches above the surface of the roof;

(2) Is gasketed;

(3) Is hinged on one side; and

(4) Is equipped with a cover that:

(I) Is watertight;

(II) Can be locked; and

(III) Overlaps the curbing by at least 2 inches.

9. Storage structures and their appurtenances, including vents, riser pipes and devices for overflow, must be designed in such a manner as to prevent any freezing that would interfere with the proper functioning of the structures and their appurtenances.

10. Each catwalk located over finished water stored by a public water system must have a solid floor with raised edges and be constructed in such a manner that shoe scrapings and other dirt will not fall into the finished water.

11. Sampling taps must be provided in a vault at a storage tank which are appropriate for facilitating the collection of samples of stored water for chemical analyses and for ascertaining the concentration of coliform bacteria.

12. If necessary to allow for any differential movement of a storage tank caused by settling or seismic activity, the inlet and discharge piping of the tank must be provided with flexible coupling.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67085 Storage structures: Coatings; disinfection.

1. All metal surfaces of a storage structure must be properly protected by the application of paint or another coating. The coating used must not result in the transfer of any substance into the water which imparts a taste or odor to the water or causes the water to exceed any primary or secondary standards. All internal coatings must be determined to be compatible with drinking water.

2. A storage tank, whether coated in the field or in the factory, must not be placed into service unless:

(a) The tank is cured for the appropriate time.

(b) After the tank is cured, the tank is filled with water and the water is retained in the tank for 5 days.

(c) The water retained in the tank is tested on the sixth day by a properly certified laboratory for the presence of volatile organic chemicals.

(d) The results of the test are submitted to and approved by the health authority.

3. Storage structures must be disinfected before being put into service for the first time and after being entered for cleaning, repair or painting. The disinfection must be conducted in accordance with American Water Works Association Standard C652. The disposal of any

heavily chlorinated water that results from the process of disinfection must be coordinated with the division of environmental protection. Before the structure is placed into operation after disinfection, two samples of water in the structure, taken at least 24 hours apart, must indicate that any concentration of coliform bacteria in the structure meets primary standards.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6709 Storage structures: Security and safety. A supplier of water shall ensure that, with regard to storage structures:

1. Locks are installed on manholes and ladders, and such other precautions are taken, as are necessary to prevent trespassing, vandalism and sabotage. Fencing is required around any reservoir or tank that is highly accessible to the public or livestock.

2. The structures are designed in such a manner as to provide for the safety of employees of the public water system. Equipment for the safety of employees, including ladder cages, rest platforms, handrails, guardrails and any other appropriate devices, must be provided and must conform to any applicable state or federal requirements for occupational safety and health.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67095 Storage structures: Drainage; protection from pollution and contamination.

1. Storage tanks must have sloped, watertight roofs and sidewalls, with no openings except properly constructed vents, manholes, overflows, drains, control ports and piping. The roofs must drain well.

2. The bottom of a ground-level tank, or of any reservoir or standpipe used for distribution storage, must be protected from floods at the maximum flood level. The area surrounding such a structure must be graded in a manner that will prevent standing surface water.

3. Subsurface storage structures must be lined and covered, and located:

(a) Above the maximum elevation of the ground water; and

(b) At least 50 feet from any sewer main and at least 150 feet from all other sewerage facilities.

The land adjacent to such a structure must be graded in such a manner as to route surface water away from the structure.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67105 Distribution system: General requirements. A supplier of water shall ensure that the distribution system of the public water system:

1. Is adequate to deliver sufficient volumes of water, of the appropriate quality and pressure, to the area of service of the public water system.

2. Complies with the requirements of NAC 445A.67105 to 445A.67145, inclusive.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6711 Distribution system: Pressure.

1. A distribution system must be designed to maintain:

(a) A minimum pressure of 20 psi at ground level for all service connections during all conditions of fire flow experienced during maximum day demand.

(b) A normal working pressure of not less than 40 psi during maximum day demand.

(c) A minimum pressure of 30 psi during peak hour demand.

2. The zones of pressure of a distribution system must be designed in such a manner that the static pressure at the lowest ground elevation of the zone does not exceed 100 psi. If a zone of pressure may potentially exceed that pressure, the head in the zone must be controlled by the installation of a pressure regulator downstream from the service connection for each user of water in the zone.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67115 Distribution system: Design; diameter of water mains; connection to fire hydrant.

1. Before designing a water main for a public water system, an engineer shall perform a network hydraulic analysis on the public water system, based upon the requirements for flow and pressure set forth in NAC 445A.6672 to 445A.66735, inclusive, and 445A.6711.

2. Except as otherwise authorized by the health authority on a case-by-case basis, the inside diameter of the water mains of a public water system must have a nominal size of at least 6 inches.

3. A water service lateral that serves a fire hydrant must, if the water service lateral is:

(a) Not more than 150 feet in length, be not less than 6 inches in diameter.

(b) More than 150 feet in length, be of a diameter that is justified by an engineer and approved by the health authority.

A fire hydrant must not be connected to a water main or water service lateral that does not have a sufficient capacity for fire flow.

4. A distribution system for mobile home parks and recreational vehicle parks must be designed in compliance with the Uniform Plumbing Code.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6712 Distribution system: Dead ends.

1. A distribution system must be designed, to the extent possible, in such a manner as to eliminate dead ends and form a grid system or system of arterial loops. Except as otherwise justified by an engineer and approved by the health authority, tree systems are prohibited.

2. Where a dead end cannot be eliminated, it must:

(a) If the flow and pressure is sufficient, terminate with:

(1) A gate valve of the same size as the water main; and

(2) A fire hydrant; or

(b) Terminate with a flushing device approved by the health authority. The flushing device must be of a sufficient size to provide a velocity of at least 2.5 feet per second in the water main being flushed. No flushing device may be connected directly to any sewer line.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67125 Distribution system: Materials.

1. Except as otherwise provided in subsections 2 and 3, the pipes, fittings and valves of a distribution system, and any fire hydrants connected to a public water system, must:

(a) For public water systems in Carson City, Fallon, Reno, Sparks, Yerington, Douglas County, Lander County, Lyon County, Nye County or Washoe County, comply with Standard Specifications for Public Works Construction and the American Water Works Association Standards.

(b) For public water systems in Boulder City, Henderson, North Las Vegas, the Big Bend Water District or the Las Vegas Valley Water District, comply with Uniform Design and Construction Standards for Water Distribution Systems and the American Water Works Association Standards.

(c) For public water systems in other areas of the state, comply with the American Water Works Association Standards.

2. The choice of materials for the pipes of a distribution system must be based on the properties of the soil and water. In areas where:

(a) The water is corrosive, metallic pipe must not be used.

(b) The ground water or soil is contaminated with volatile or synthetic organic chemicals, plastic pipe and gasketed pipe must not be used.

3. Any pipes, fittings, solder or flux used in the installation or repair of a public water system must be lead-free and comply with section 316.1.3 of the Uniform Plumbing Code.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6713 Distribution system: Isolation valves.

1. Water mains must contain sufficient isolation valves to minimize any inconvenience to customers and sanitary hazards resulting from repairs.

2. Except as otherwise provided in subsection 3, isolation valves in:

(a) Commercial districts must be located at intervals of not more than 500 feet;

(b) Areas where users of water are widely scattered and future development is not expected must be located at intervals of not more than 1 mile; or

(c) Other areas must be located in such a manner that portions of water mains can be isolated in lengths of 800 feet or less by the closure of valves.

3. A supplier of water shall, after consultation with the fire authority, locate isolation valves in such a manner as to minimize the number of fire hydrants that will be taken out of service by the isolation of particular portions of a water main.

4. Valve boxes must be installed over all valve stems in a manner that aids in locating and operating the valves.

5. Each service line must have at least:

(a) One corporation stop; and

(b) One curb stop or meter stop.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67135 Distribution system: Release and blowoff valves.

1. Air and vacuum valves, air release valves or hydrants must be installed at high points in water mains where air tends to accumulate.

2. Suitably sized blowoff valves must be provided in appropriate locations at low points in water mains with diameters of 20 inches or more. Blowoff valves must have air gaps and must not discharge directly into sewer lines.

3. Except as otherwise provided in subsection 4, the openings of any vents in a valve required pursuant to this section must:

(a) Be located at least 1 foot above the grade of the ground surface; and

(b) Have a discharge pipe that is screened, elbowed and faced downward in such a manner as to protect the pipe from traffic and other disturbances. The screen must not be susceptible to damage by corrosion and must have not less than 22 nor more than 24 mesh per inch.

4. If compliance with subsection 3 is impracticable, the health authority may, on a case-by-case basis, authorize below-grade openings in vents. If so authorized:

(a) The openings must be located in subsurface chambers or pits which are adequately drained and are not subject to flooding; and

(b) The drains from the chambers or pits must have air gaps and must not be connected directly to any sewer lines.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6714 Distribution system: Chambers, vaults, pits and manholes. A chamber, vault, pit or manhole that contains any valves, including blowoff valves, or any meters or other appurtenances of a distribution system:

1. Must not be connected directly to any sanitary sewer or storm sewer; and

2. Except for meter boxes for service lines and valve boxes for water mains, must be drained to the surface of the ground or to a subsurface drainage field.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67145 Distribution system: Construction.

1. Except as otherwise provided in this section, a water main must be installed:

(a) For public water systems in Carson City, Fallon, Reno, Sparks, Yerington, Douglas County, Lander County, Lyon County, Nye County or Washoe County, in compliance with Standard Specifications for Public Works Construction and American Water Works Association Standards.

(b) For public water systems in Boulder City, Henderson, North Las Vegas, the Big Bend Water District or the Las Vegas Valley Water District, in compliance with Uniform Design and Construction Standards for Water Distribution Systems and the American Water Works Association Standards.

(c) For public water systems in other areas of the state, in compliance with the American Water Works Association Standards.

(d) Except as otherwise provided in paragraphs (a), (b) and (c), in compliance with the procedures for installation recommended by the manufacturer of the water main.

2. Except as otherwise provided in this subsection, water mains must be installed in areas that are dedicated for public use as streets or highways or are otherwise sufficiently open to the public to facilitate access for maintenance and emergency repairs. Water mains may be constructed on private property, under structures or in or under bodies of water only if approved by the health authority.

3. Piping for a distribution system must be designed and constructed in such a manner that appropriate measures, as determined by frost depth, type of backfill and surface loads, are taken for trenching, bedding and refilling. Water mains must be:

(a) Properly bedded and covered with a sufficient amount of earth or other insulation to prevent freezing.

(b) Installed with at least 36 inches of cover over the piping or at least 12 inches below frost depth, whichever is deeper.

4. The design and construction of a distribution system must provide for the avoidance of pressure surges and water hammer through the use of reaction blocking and similar methods. Where appropriate, water mains, tees, bends, plugs and hydrants must have thrust blocks, thrust anchors or joints designed to prevent movement. Water mains located on a slope must be restrained in such a manner as determined appropriate by an engineer.

5. Locator tape, magnetic tape or conductive wire and tape must be installed in the trench above a water main.

6. A water main must not be placed into service after its initial construction until:

(a) The water main has been disinfected in accordance with American Water Works Association Standard C651. The disposal of any spent chlorine solutions must be coordinated with the division of environmental protection.

(b) An analysis of the water main which indicates that it meets primary standards for coliform bacteria has been obtained and reported to the health authority.

7. The piping installed in a distribution system must, if the piping consists of:

(a) Ductile iron, be pressure tested in accordance with American Water Works Association Standard C600;

(b) PVC, be pressure tested in accordance with American Water Works Association Standard C605; or

(c) Another material, be pressure tested in accordance with:

(1) For public water systems in Carson City, Fallon, Reno, Sparks, Yerington, Douglas County, Lander County, Lyon County, Nye County or Washoe County, Standard Specifications for Public Works Construction;

(2) For public water systems in Boulder City, Henderson, North Las Vegas, the Big Bend Water District or the Las Vegas Valley Water District, Uniform Design and Construction Standards for Water Distribution Systems; or

(3) For public water systems in other areas of the state, the requirements of the health authority,

before the piping is flushed, disinfected or sampled for an analysis of water quality.

8. During the construction of a distribution system, any openings in unfinished piping or appurtenances must be sealed at the end of each working day in such a manner as to prevent the entry of birds and other animals, dirt, trench water and other sources of pollution or contamination.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6715 Separation of lines: Definitions. As used in NAC 445A.6715 to 445A.6718, inclusive, unless the context otherwise requires:

1. "Sewer main" includes:

(a) A sewer main of a sanitary sewer, storm sewer or any other type of sewer; and

(b) Any unidentified conduit with a diameter that exceeds 6 inches.

2. "Sewer service lateral" includes:

(a) A sewer service lateral of a sanitary sewer, storm sewer or any other type of sewer; and

(b) Any unidentified conduit with a diameter of not more than 6 inches.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67155 Separation of lines: Sewer main parallel to water main or water service lateral. If a sewer main parallels a water main or water service lateral:

1. Whenever possible, the sewer main must be located lower than the water main or water service lateral.

2. Except as otherwise provided in subsection 3, the sewer main must be in a separate trench and:

(a) Located at least 10 feet away from the water main or water service lateral, as measured horizontally from the exterior walls of the pipes;

(b) If compliance with paragraph (a) is not practicable, located:

(1) At least 5 feet away from the water main or water service lateral, as measured horizontally from the exterior walls of the pipes; and

(2) At least 18 inches lower than the water main or water service lateral, as measured vertically from the exterior walls of the pipes; or

(c) If compliance with neither paragraph (a) nor paragraph (b) is practicable, located at least 6 feet away from the water main or water service lateral, as measured horizontally from the exterior walls of the pipes. If the sewer main:

(1) Is in place at the time a water project is performed, the sewer main must, except as otherwise provided in subparagraph (3), be totally encased in at least 4 inches of cement slurry;

(2) Is not in place at the time a water project is performed, the sewer main must, except as otherwise provided in subparagraph (3), be constructed of PVC with joints that comply with Standard D3212 of the American Society for Testing and Materials; or

(3) Is part of a storm sewer and has a diameter of not less than 24 inches, the sewer main must be installed with watertight joints that use joint sealants or joint gaskets.

3. If compliance with the requirements for separation set forth in subsection 2 are not practicable:

(a) The water main or water service lateral must be encased in at least 4 inches of cement slurry; and

(b) The sewer main must comply with the requirements of subparagraphs (1), (2) and (3) of paragraph (c) of subsection 2.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6716 Separation of lines: Sewer service lateral parallel to water main or water service lateral. If a sewer service lateral parallels a water main or water service lateral, the sewer service lateral must be in a separate trench and:

1. Located:

(a) At least 12 inches lower than the water main or water service lateral, as measured vertically from the exterior walls of the pipes; and

(b) At least 48 inches away from the water main or water service lateral, as measured horizontally from the exterior walls of the pipes; or

2. If compliance with subsection 1 is impracticable, located in such a manner as is authorized by the health division.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67165 Separation of lines: Sewer main crossing water main. If a sewer main crosses a water main:

1. The sewer main must be located at least 18 inches lower than the water main, as measured vertically from the exterior walls of the pipes; or

2. If compliance with subsection 1 is impracticable:

(a) A reasonable effort must be made to place the pipeline joints of the sewer main and water main, other than any welded joints, an equal distance from the point of crossing;

(b) The sewer main and water main must be:

(1) Located at least 6 inches apart, as measured vertically from the exterior walls of the pipes; and

(2) Provided with such structural support as the supplier of water determines necessary; and

(c) The area of crossing must be constructed in such a manner that:

(1) The sewer main is composed of materials that:

(I) For public water systems in Carson City, Fallon, Reno, Sparks, Yerington, Douglas County, Lander County, Lyon County, Nye County or Washoe County, comply with Standard Specifications for Public Works Construction and the American Water Works Association Standards;

(II) For public water systems in Boulder City, Henderson, North Las Vegas, the Big Bend Water District or the Las Vegas Valley Water District, comply with Uniform Design and Construction Standards for Water Distribution Systems and the American Water Works Association Standards; or

(III) For public water systems in other areas of the state, comply with the American Water Works Association Standards;

(2) The sewer main consists of PVC which is constructed with joints that comply with Standard D3212 of the American Society for Testing and Materials;

(3) The sewer main or water main is totally encased in at least 4 inches of cement slurry for a distance of at least 10 feet on each side of the point of crossing; or

(4) The sewer main or water main is installed in a pipe sleeve that extends, without joints, at least 10 feet on each side of the point of crossing.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6717 Separation of lines: Sewer main crossing water service lateral.

1. If a sewer main crosses a water service lateral, the sewer main must be located:

(a) At least 18 inches lower than the water service lateral, as measured vertically from the exterior walls of the pipes; or

(b) If compliance with paragraph (a) is impracticable, in such a manner as is authorized by the health division.

2. If a water service lateral is in place at the time a sewer main is constructed and must be relocated to comply with this section, the relocation must be performed:

(a) With the approval of and in accordance with the procedures and standards of the supplier of water; or

(b) If compliance with paragraph (a) is impracticable, in such a manner as is authorized by the health division.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67175 Separation of lines: Sewer service lateral crossing water main or water service lateral.

1. If a sewer service lateral crosses a water main or water service lateral, the sewer service lateral must be located:

(a) At least 12 inches lower than the water main or water service lateral, as measured vertically from the exterior walls of the pipes; or

(b) If compliance with paragraph (a) is impracticable, in such a manner as is authorized by the health division.

2. If a water main or water service lateral is in place at the time a sewer service lateral is constructed and must be relocated to comply with this section, the relocation must be performed:

(a) With the approval of and in accordance with the procedures and standards of the supplier of water; or

(b) If compliance with paragraph (a) is impracticable, in such a manner as is authorized by the health division.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6718 Separation of lines: Lines across surface water.

1. A supplier of water shall consult with the health authority before preparing any plans for the construction of a pipeline of the public water system across any surface water, regardless of whether the crossing will be over or under the surface of the water.

2. If the pipeline will cross over the surface of the water, the pipe must be adequately supported and anchored, protected from damage and freezing, and accessible for repair and replacement.

3. Except as otherwise provided in subsection 4, if the pipeline will cross under the surface of the water, the pipe must be:

(a) Covered with at least 5 feet of backfill; and

(b) Enclosed in a pipe sleeve or encased with at least 4 inches of cement slurry.

4. If the pipeline will cross under the surface of a channel of water that is 15 or more feet wide:

(a) The pipe must be constructed with watertight mechanical joints that are capable of deflection.

(b) Isolation valves must be located at both ends of the crossing in such a manner that the length of the crossing can be isolated for testing, repair and sampling. The isolation valves must be easily accessible and must not be subject to flooding. The isolation valve closest to the source of the supply of water must be located in a manhole or valve chamber which is large enough for human access. The manhole or valve chamber must contain a permanent sampling tap and means for pressure testing the pipe.

(c) The pipe must be enclosed in a pipe sleeve or encased with at least 4 inches of cement slurry.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67185 Cross-connections and backflow: General requirements. A supplier of water shall:

1. Ensure that there are no unprotected connections between the supplies of water, systems for the pumping, storage and treatment of water, and distribution system of the public water system and any source of pollution or contamination pursuant to which any unsafe water or other degrading material can be discharged or drawn into the public water system as a result of backsiphonage or backpressure.

2. Develop and carry out a program for the control of cross-connections that is approved by the health authority. Except for a program that has been approved by a health authority before February 20, 1997, a program for the control of cross-connections must:

(a) Be submitted to the health authority for its approval no later than:

(1) January 1, 1999; or

(2) Eighteen months after the public water system begins operation,

whichever is later.

(b) Include:

(1) A schedule for implementation.

(2) A plan for inspecting the properties served by the public water system to determine the potential risk of cross-connection and backflow.

(3) A plan for testing and tracking all primary assemblies for the prevention of backflow which are intended to protect the public water system upstream from a service connection. The

plan must provide for the annual testing of those assemblies and for the retention of records from that testing.

(4) A list of the particular assemblies for the prevention of backflow which may be used in the public water system or on service connections to the public water system.

(5) A list of the measures the supplier of water will take to enforce the program if any customers of the system fail to comply with the program.

(c) Ensure compliance with NAC 445A.67185 to 445A.67255, inclusive.

(d) Except as otherwise provided in NAC 445A.67185 to 445A.67255, inclusive, comply with the provisions of:

(1) The Uniform Plumbing Code;

(2) Recommended Practice for Backflow Prevention and Cross-Connection Control; and

(3) The Manual of Cross-Connection Control.

If there is any conflict between any of the provisions described in this paragraph, the most stringent of those provisions prevails.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6719 Cross-connections and backflow: Assemblies for prevention of backflow.

1. Each service connection must have an assembly for the prevention of backflow, of a type that is commensurate with the degree of hazard that exists on the property of the customer of a public water system. Except as otherwise provided in NAC 445A.67185 to 445A.67255, inclusive, the assembly may consist of any one of the following, as listed in the order of least to most protection:

(a) A double check valve assembly.

(b) A reduced pressure principle assembly.

(c) An air gap.

2. A reduced pressure principle assembly may be substituted for a double check valve assembly, and an air gap may be substituted for a reduced pressure principle assembly.

3. With the approval of the supplier of water:

(a) A double check detector check assembly may be substituted for a double check valve assembly; and

(b) A reduced pressure detector assembly may be substituted for a reduced pressure principle assembly.

4. A double check valve assembly or double check detector check assembly may be used only for protection against pollution.

5. A reduced pressure principle assembly or reduced pressure detector assembly may be used for protection against pollution or contamination, but a reduced pressure principle assembly must not be used for protection against sewage or reclaimed wastewater.

6. An assembly for the prevention of backflow must not be composed solely of a single check valve.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67195 Cross-connections and backflow: Minimum types of protection for particular service connections. Except as otherwise provided in NAC 445A.67185 to 445A.67255, inclusive, or authorized by the health authority, the minimum type of protection from cross-connection required for a service connection to:

1. A public building or any building:

(a) That contains a hotel, motel, casino, condominium or town house, or any apartments;

(b) Used for commercial purposes where a specific business activity has not been identified; or

(c) In which one or more sewage pumps or sewage ejectors have been installed,

consists of a reduced pressure principle assembly.

2. A building that:

(a) Has multiple stories and booster pumps or elevated tanks to distribute potable water; or

(b) Exceeds 40 feet in height, as measured from the service connection to the highest water outlet,
consists of a double check valve assembly.

3. A class 1, class 2 or class 3 fire sprinkler system consists of a double check valve assembly.

4. A class 4, class 5 or class 6 fire sprinkler system consists of a reduced pressure principle assembly.

5. A hydronic heating system that contains any chemical additives consists of a reduced pressure principle assembly.

6. A baptismal font of a church consists of a reduced pressure principle assembly.

7. A facility for bottling beverages consists of a reduced pressure principle assembly.

8. A brewery consists of a reduced pressure principle assembly.

9. A cannery, facility for the processing of food, packing house or rendering facility consists of a reduced pressure principle assembly.

10. A facility for cold storage consists of a reduced pressure principle assembly.

11. A dairy processing facility consists of a reduced pressure principle assembly.

12. A restaurant or other facility in which food is served consists of a reduced pressure principle assembly.

13. A dental clinic consists of a reduced pressure principle assembly.

14. A hospital, medical building or clinic consists of a reduced pressure principle assembly.

15. A convalescent home or nursing home consists of a reduced pressure principle assembly.

16. A sanitarium consists of a reduced pressure principle assembly.

17. A morgue, mortuary or facility for conducting autopsies consists of a reduced pressure principle assembly.

18. A laboratory, including, without limitation, a laboratory of a teaching institution or another biological or analytical facility, consists of a reduced pressure principle assembly.

19. A facility of a school, college or university consists of a reduced pressure principle assembly.

20. A facility for the production of motion pictures consists of a reduced pressure principle assembly.

21. A facility for the publishing or printing of a newspaper consists of a reduced pressure principle assembly.

22. A veterinary clinic, pet shop or facility for grooming pets consists of a reduced pressure principle assembly.

23. A laundry or dry cleaning facility consists of a reduced pressure principle assembly.

24. A dyeing facility consists of a reduced pressure principle assembly.

25. A facility for mechanical, chemical or electrochemical plating consists of a reduced pressure principle assembly.

26. Any portable spraying or cleaning equipment consists of an air gap.

27. A pool or spa consists of a reduced pressure principle assembly.

28. A park for mobile homes or recreational vehicles consists of a reduced pressure principle assembly.

29. A facility located on a waterfront, including, without limitation, a fishery, fish hatchery, dock or marina, consists of a reduced pressure principle assembly.

30. A facility for the production of power consists of a reduced pressure principle assembly.

31. A facility for the production, storage or transmission of oil or gas consists of a reduced pressure principle assembly.

32. A facility that handles, processes or stores radioactive materials or substances consists of a reduced pressure principle assembly.

33. A facility for processing sand or gravel consists of a reduced pressure principle assembly.

34. A system for storm drainage, the collection of sewage or the distribution of reclaimed wastewater consists of an air gap.

35. A facility in which:

(a) Water is used to manufacture, store, compound or process chemicals for industrial purposes;

(b) Chemicals are added to water used in the compounding or processing of products;

(c) Chemicals are added to the supply of water; or

(d) The supply of water is used for the transmission or distribution of chemicals,

consists of a reduced pressure principle assembly.

36. A facility for the manufacture of aircraft or missiles consists of a reduced pressure principle assembly.

37. A facility for the manufacture, repair or washing of motor vehicles consists of a reduced pressure principle assembly.

38. A facility for the manufacturing or processing of film consists of a reduced pressure principle assembly.

39. A facility for the manufacturing of ice consists of a reduced pressure principle assembly.

40. A facility for the manufacturing, processing or cleaning of metal consists of a reduced pressure principle assembly.

41. A facility for the manufacturing of natural or synthetic rubber consists of a reduced pressure principle assembly.

42. A facility for the manufacturing of paper or paper products consists of a reduced pressure principle assembly.

43. Any other facility for manufacturing, processing or fabricating consists of a reduced pressure principle assembly.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67205 Cross-connections and backflow: Minimum types of protection for service connection to auxiliary supply of water or irrigation system. Except as otherwise provided in NAC 445A.67185 to 445A.67255, inclusive, the minimum type of protection required for a service connection to:

1. An auxiliary supply of water must consist of a double check valve assembly or reduced pressure principle assembly, as determined by the supplier of water and approved by the health authority.

2. An irrigation system, including a system for irrigating median strips, must consist of:

(a) A pressure vacuum breaker or double check valve assembly, as determined by the supplier of water and approved by the health authority; or

(b) Except as otherwise authorized by the health authority, if facilities have been installed for pumping, injecting or applying fertilizers, pesticides or other hazardous systems, a reduced pressure principle assembly.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6721 Cross-connections and backflow: Minimum types of protection for other service connections; resolution of conflicting requirements; imposition of more stringent requirements.

1. The health authority shall determine, on a case-by-case basis, the minimum type of protection from cross-connection required for any type of service connection which is not specified in NAC 445A.67185 to 445A.67255, inclusive.

2. If there is any conflict between any of the provisions of NAC 445A.67185 to 445A.67255, inclusive, regarding the type of protection from cross-connection required for a particular type of service connection, the most stringent of those provisions prevails.

3. The health authority or supplier of water may impose requirements regarding the installation and use of assemblies for the prevention of backflow which are more stringent than the provisions of NAC 445A.67185 to 445A.67255, inclusive.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67215 Cross-connections and backflow: Service connection to fire sprinkler system.

1. A supplier of water shall ensure that:

(a) An appropriate assembly for the prevention of backflow is installed at each service connection between the public water system and a fire sprinkler system; and

(b) The assembly is:

(1) Tested upon installation; and

(2) Maintained and tested, and the results of those tests logged, annually.

The testing required by this subsection must be conducted by a certified backflow prevention assembly tester.

2. An assembly for the prevention of backflow installed on a service connection between a public water system and a fire sprinkler system must:

(a) Be of such a type and installed in such a manner that the assembly:

(1) Protects the public water system; and

(2) Does not interfere with the capability of the fire sprinkler system, as engineered, to protect the safety of persons in the public or private facility in which the fire sprinkler system is located; and

(b) Prevent any pollution or contamination of drinking water, by any nonpotable water contained in the fire sprinkler system, which may be caused by any backpressure or backsiphonage that may occur during normal or abnormal operation of the fire sprinkler system or the public water system.

3. The supplier of water shall determine the type of assembly required on a particular service connection between the public water system and a fire sprinkler system based upon the degree of risk posed by the fire sprinkler system to the supply of potable water, considering the chemical and biological contents of the fire sprinkler system, the materials used to construct the fire sprinkler system and the possibility that backflow will occur.

4. Any reduced pressure principle assembly or reduced pressure detector assembly used on a service connection between a public water system and a fire sprinkler system must not have any holes drilled in the check valve clappers.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6722 Cross-connections and backflow: Design of fire sprinkler system. The designer of a fire sprinkler system shall ensure that, based upon the placement of any reduced pressure principle assembly or reduced pressure detector assembly:

1. An antifreeze loop or the total line of the fire sprinkler system is able to accommodate the thermal expansion of any antifreeze; or

2. If necessary, an expansion tank is provided to accommodate the thermal expansion of any antifreeze.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67225 Cross-connections and backflow: Conditions to provision of service to certain fire sprinkler systems. If any backflow involving a fire sprinkler system threatens a public water system, the supplier of water shall require, as a condition to the provision of service to the fire sprinkler system:

1. The installation of an assembly for the prevention of backflow in accordance with the requirements of NAC 445A.67215.

2. An analysis to determine how the assembly will affect the pressure and rate of flow of water available to the fire sprinkler system.

3. The modification of the fire sprinkler system, and the riser and water service lateral for the fire sprinkler system, in such a manner as necessary to ensure adequate fire flow.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6723 Cross-connections and backflow: Installation of air gap. Except as otherwise authorized by the health authority, if an air gap is installed on a service connection:

1. The air gap must be located as closely as practicable to the service connection, on the opposite side of the service connection from the public water system.

2. All piping from the service connection to the receiving tank must be above grade and visible.

3. There must be no type of outlet, tee, tap, take-off or connection to or from the service line between the service connection and the air gap.

4. Expansion tanks or pressure relief valves must be provided as appropriate for the potential threat of water hammer and thermal expansion.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67235 Cross-connections and backflow: Installation of reduced pressure principle assembly. Except as otherwise authorized by the health authority, if a reduced pressure principle assembly is installed on a service connection:

1. The reduced pressure principle assembly must be installed:

(a) In a horizontal and level position, except that the reduced pressure principle assembly may be installed in a vertical position if the assembly has been:

(1) Specifically designed for operation in that position; and

(2) Tested and certified to be suitable for operation in that position by an approved backflow testing laboratory.

(b) As closely as practicable to the service connection, on the opposite side of the service connection from the public water system.

(c) Above ground and, to the extent possible, not less than 12 inches nor more than 36 inches above the finished grade, as measured from the bottom of the assembly.

(d) At a site with adequate drainage, or with drain piping, for any fluid that is discharged when the assembly is activated.

(e) In such a manner that no part of the assembly will be submerged during normal conditions of operation and weather.

(f) In such a manner as to be readily accessible for maintenance and testing.

2. The reduced pressure principle assembly must not be installed below grade, in any subsurface vault, or in any vault, chamber or pit where there is any potential that the relief valve could become submerged.

3. The reduced pressure principle assembly must have a free-flowing drain with an air gap.

4. There must be no type of outlet, tee, tap, take-off or connection to or from the service line between the service connection and the reduced pressure principle assembly.

5. Expansion tanks or pressure relief valves must be provided as appropriate for the potential threat of water hammer and thermal expansion.

6. The reduced pressure principle assembly may be installed indoors if the installation complies with subsections 1 to 5, inclusive, and has a clearance of:

(a) At least 12 inches on top;

(b) At least 24 inches on the side with test cocks; and

(c) At least 12 inches on the other sides.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6724 Cross-connections and backflow: Installation of double check valve assembly. Except as otherwise authorized by the health authority, if a double check valve assembly is installed on a service connection:

1. The double check valve assembly must be installed:

(a) In a horizontal and level position, except that the double check valve assembly may be installed in a vertical position if the assembly has been:

(1) Specifically designed for operation in that position; and

(2) Tested and certified to be suitable for operation in that position by an approved backflow testing laboratory.

(b) As closely as practicable to the service connection, on the opposite side of the service connection from the public water system.

(c) Above ground and, to the extent possible, not less than 12 inches nor more than 36 inches above the finished grade, as measured from the bottom of the assembly.

(d) In such a manner as to be readily accessible for maintenance and testing.

2. There must be no type of outlet, tee, tap, take-off or connection to or from the service line between the service connection and the double check valve assembly.

3. Expansion tanks or pressure relief valves must be provided as appropriate for the potential threat of water hammer and thermal expansion.

4. The double check valve assembly may, if above-grade installation is impracticable and the health authority approves of the installation, be installed in a below-grade vault in such a manner that:

(a) The top of the double check valve assembly is not more than 8 inches below grade.

(b) There is:

(1) At least 12 inches of clearance between the bottom of the vault and the bottom of the double check valve assembly;

(2) At least 24 inches of clearance between the side of the vault and the side of the double check valve assembly with test cocks; and

(3) At least 12 inches of clearance between the side of the vault and the other sides of the double check valve assembly.

(c) To the extent warranted by climatic conditions, the double check valve assembly is protected from freezing.

(d) The vault has adequate drainage to prevent the accumulation of water, which drains to daylight, to free-draining soil or to a sufficient amount of gravel placed under the vault to provide for free drainage and prevent the accumulation of water under the vault. A vault that does not have an integrated bottom must be placed on a layer of gravel which is not less than 3 inches deep.

(e) The vault is protected from vandalism.

(f) The vault is not located in an area subject to vehicular traffic.

5. The double check valve assembly may be installed indoors if:

(a) The installation complies with subsections 1 to 4, inclusive; and

(b) The double check valve assembly has a clearance of:

(1) At least 12 inches on top;

(2) At least 24 inches on the side with test cocks; and

(3) At least 12 inches on the other sides.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67245 Cross-connections and backflow: Duties of certified backflow prevention assembly tester. A certified backflow prevention assembly tester shall:

1. Perform his field testing of assemblies for the prevention of backflow in accordance with the provisions of the Manual of Cross-Connection Control.

2. Use, for the testing of reduced pressure principle assemblies, double check valve assemblies and pressure vacuum breakers, a differential pressure gauge that has:

(a) A differential range of at least zero to 15 psi; and

(b) Graduations of not more than 0.2 psi.

3. Ensure that his testing equipment:

(a) Is calibrated to the manufacturers' specifications not less than annually; and

(b) Has all necessary hoses and fittings.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6725 Cross-connections and backflow: Use of vacuum breakers.

1. An atmospheric vacuum breaker or pressure vacuum breaker may be used only for protection against pollution or contamination under conditions of backsiphonage.

2. If an atmospheric vacuum breaker is used:

(a) The vacuum breaker must be installed not less than 6 vertical inches above the highest point of the downstream piping.

(b) Any associated shutoff valve must be installed upstream from the vacuum breaker.

(c) The vacuum breaker must not be subjected to operating pressure for more than 12 hours in any 24-hour period.

(d) Flow from the protected fixture must be to the atmosphere.

3. If a pressure vacuum breaker is used, the vacuum breaker:

(a) Must be installed:

(1) Upstream from the terminal shutoff valve; and

(2) Not less than 12 vertical inches above the highest point of the downstream outlet, valve or piping.

(b) Must not be installed at a location where backpressure will occur.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67255 Cross-connections and backflow: Restrictions on use of certain valves and piping assemblies.

1. A stop and waste valve must not be used on a service line.

2. If a valve or piping assembly, including a frost-free riser, has an opening that is subject to flooding, the valve or piping assembly must not be used on a service line unless:

(a) The valve or piping assembly is adequately protected by an assembly for the prevention of backflow; and

(b) If the piping assembly is a frost-free riser, the riser is equipped with appropriate valves and a connection for the introduction of compressed air, pursuant to which water may be purged and the system prepared for winter.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6726 Disinfection of facility for collection, treatment or distribution of water. Before a supplier of water initially uses a facility for the collection, treatment or distribution of water, the facility must be disinfected in accordance with American Water Works Association Standards C651, C652, C653 and C654.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67265 Duties after loss of pressure in distribution system. Except as otherwise authorized by the health division, if any part of a distribution system loses all pressure, the supplier of water shall, before placing that part of the distribution system back into service:

1. Inform the customers of the public water system within the affected portion of its area of service of the need to boil their water before consumption.

2. Collect, on 2 or more consecutive days, samples of water from that part of the distribution system which indicate that the presence of any coliform bacteria complies with primary standards.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6727 Requirements after cleaning or repair of water main.

1. Except as otherwise provided in subsection 2, after a water main is cleaned or repaired, and before the water main is placed back into service:

(a) The water main must be disinfected in accordance with American Water Works Association Standard C651. The disposal of any spent chlorine solutions must be coordinated with the division of environmental protection.

(b) An analysis of the water main which indicates that it meets primary standards for coliform bacteria must be obtained and reported to the health authority.

2. Compliance with subsection 1 is not required if a water main is kept full of water under continuous pressure while it is being repaired.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67275 Water hauling: Definitions. As used in NAC 445A.67275 to 445A.6731, inclusive, unless the context otherwise requires:

1. "Supplier of water" includes any person or other entity, including a governmental entity, which performs water hauling.

2. "Water hauling" means the bulk hauling, by any means of transportation, of water for introduction into a public water system.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6728 Water hauling: General requirements. Water hauling may be used only:

1. In an emergency or on a temporary basis when water hauling is the only means of distributing drinking water to the customers of a public water system; and

2. If:

(a) The proposal for water hauling is submitted to and approved by the health authority before the water hauling begins;

(b) Each vehicle to be used for water hauling is inspected by the health authority before it is used for water hauling and annually thereafter; and

(c) The supplier of water ensures that the water hauling complies with NAC 445A.67275 to 445A.6731, inclusive.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67285 Water hauling: Sanitation and disinfection. If a health authority approves the use of water hauling:

1. The water must be obtained only from a source that:

(a) Meets primary and secondary standards; and

(b) Has been approved by the health authority before the water is obtained.

The supplier of water shall provide the health authority with evidence of compliance with this subsection.

2. The supplier of water shall provide for:

(a) The sanitary transfer of water from its source to the tanks used for water hauling and from those tanks to the tanks owned or used by customers of the public water system.

(b) The sampling and analysis of the hauled water, at a frequency approved by the health authority, to determine whether the hauled water meets primary standards for coliform bacteria. If the water in any vehicle fails to meet those standards, the vehicle must not be used for water hauling until further testing indicates that the contamination has been eradicated. The supplier of water shall provide the health authority with evidence of compliance with this paragraph.

(c) The sanitation and disinfection of the tanks used for water hauling and of the lines and appurtenances used for the transfer and distribution of the water. After it is constructed, cleaned or repaired, and before it is placed into service:

(1) Such a tank, line or appurtenance must be disinfected in accordance with American Water Works Association Standard C651. The disposal of any spent chlorine solutions must be coordinated with the division of environmental protection.

(2) An analysis of the tank, line or appurtenance which indicates that it meets primary standards for coliform bacteria must be obtained and reported to the health authority.

3. The chlorine residual in the hauled water must be not less than 1 mg/l and not more than 5 mg/l.

4. Except as otherwise authorized by the health authority, the vehicles used for water hauling must be used only for the distribution of potable water and must never have contained, hauled or carried any materials or substances other than water from a source approved by the health authority.

5. There must be no modification of the facilities where the water is obtained or the tanks in which the water is hauled without the prior approval of the health authority.

6. The tanks used for water hauling must be cleaned and disinfected with a chlorine solution, at such frequencies as the health authority determines appropriate, in accordance with the following procedure:

(a) A sufficient amount of chlorine must be added to the tank to bring the chlorine residual to not less than 50 ppm.

(b) The chlorine solution in the tank must be agitated thoroughly and allowed to contact the tank and any attached hoses for not less than 30 minutes.

(c) The disposal of the spent chlorine solution must be coordinated with the division of environmental protection.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6729 Water hauling: Log of activities. If a health authority approves the use of water hauling, the supplier of water shall maintain a log of its activities relating to the water hauling which must include:

1. The dates of hauling.
2. The amounts hauled.
3. An identification of each vehicle used for hauling.
4. The source of the water hauled.
5. The concentration of chlorine in the water hauled.
6. The places where the water was delivered.
7. Copies of any relevant contracts or other agreements.
8. The results of the required analyses for coliform bacteria.

(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67295 Water hauling: Construction of equipment. If a health authority approves the use of water hauling:

1. Any containers, tanks, hoses, fittings, piping or other equipment used to store, haul or transfer the water must be constructed of materials and coatings determined to be compatible with drinking water.

2. The tanks used for hauling and equipment used for the delivery of the water must be readily accessible for cleaning.

3. A tank used for hauling must have:

(a) A manhole of adequate size for the maintenance of the tank.

(b) A drain on the bottom which is adequate for the complete drainage of the tank.

4. Each opening in a tank used for hauling or a fitting used for the delivery of water must be tightly sealed by gasket, threaded joint, weld or similar means.

5. Each end of a hose or fitting used for the delivery or receipt of water must have a threaded or clamped cap. The cap must be in place when the hose or fitting is not in use and properly stored when the hose or fitting is in use.

6. A tank used for the hauling or storage of water must have an air relief vent that:

(a) Terminates downward; and

(b) Is covered with a metal screen that is resistant to damage by corrosion and has not less than 22 nor more than 24 mesh per inch.

7. The discharge line from each pump or tank must have a check valve, located as near to the pump or tank as is practicable.

8. A tank used for water hauling must be filled:

(a) From an overhead standpipe which is equipped with a testable double check valve assembly and approved by the health authority;

(b) From a distribution system which is equipped with a testable double check valve assembly and approved by the health authority; or

(c) By another method approved by the health authority.

If a standpipe is used, the standpipe must terminate a distance of at least two times the diameter of the pipe above the opening used for filling the tank, and the discharge end of the pipe must be capped when not in use.

9. The area used for filling a tank used for water hauling must be:

(a) Composed of concrete; and

(b) Properly drained and maintained in such a manner as to prevent the occurrence of standing water.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.67305 Water hauling: Marking of vehicles. If a health authority approves the use of water hauling, a vehicle used for that purpose must be marked in such a manner that:
1. The name and address of the person or other entity responsible for performing the water hauling appear on both sides of the tank, or on both of the doors of the vehicle, in letters that are completely legible at all times from a distance of 50 feet.
2. The words "domestic water," "drinking water," or "potable water" appear on both sides of the tank in letters that are completely legible at all times.
(Added to NAC by Bd. of Health, eff. 2-20-97)

NAC 445A.6731 Water hauling: Equipment of vehicles for disinfection and testing. If a health authority approves the use of water hauling, a vehicle used for that purpose must have available:
1. A chorine solution with a concentration of not less than 50 mg/l nor more than 100 mg/l for the disinfection of any hose, fitting or cap that becomes contaminated during the transfer of water.
2. Strips or other devices for testing the concentration of chlorine which are:
(a) Approved by the health authority; and
(b) Sufficient for determining the chlorine residual in the hauled water and in the solution required by subsection 1.
(Added to NAC by Bd. of Health, eff. 2-20-97)

ACCOUNT FOR THE REVOLVING FUND AND ACCOUNT FOR SET-ASIDE PROGRAMS

General Provisions

NAC 445A.6751 Definitions. (NRS 445A.270) As used in NAC 445A.6751 to 445A.67644, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.67511 to 445A.67557, inclusive, have the meanings ascribed to them in those sections.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67511 "Account for the revolving fund" defined. (NRS 445A.270) "Account for the revolving fund" has the meaning ascribed to it in NRS 445A.203.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67512 "Account for set-aside programs" defined. (NRS 445A.270) "Account for set-aside programs" has the meaning ascribed to it in NRS 445A.205.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67513 "Acute health concern" defined. (NRS 445A.270) "Acute health concern" means a concern regarding human health that occurs when exposure to a contaminant causes an immediate risk to human health and causes symptoms to occur quickly.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67514 "Administrator" defined. (NRS 445A.270) "Administrator" has the meaning ascribed to it in NRS 445A.207.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67515 "Applicant" defined. (NRS 445A.270) "Applicant" means a public water system that is seeking to obtain a loan from the account for the revolving fund.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67516 "Board" defined. (NRS 445A.270) "Board" has the meaning ascribed to it in NRS 445A.210.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67517 "Board for financing water projects" defined. (NRS 445A.270) "Board for financing water projects" has the meaning ascribed to it in NRS 349.936.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67518 "Capability" defined. (NRS 445A.270) "Capability" means:
1. The technical, managerial and financial capacity of a public water system; and
2. The ability to satisfy the requirements of chapter 445A of NRS and this chapter.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67519 "Capitalization grant" defined. (NRS 445A.270) "Capitalization grant" has the same meaning as a federal grant as defined in NRS 445A.225.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6752 "Categorical exclusion" defined. (NRS 445A.270) "Categorical exclusion" means an exemption from being required to comply with the provisions of NAC 445A.67587 to 445A.67612, inclusive, that is granted to an applicant for a proposed water project:
1. Which will not individually or cumulatively have a significant effect on the human environment; and
2. For which no environmental assessment or environmental impact statement is required pursuant to NAC 445A.67588 and NAC 445A.67594 to 445A.67612, inclusive.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67521 "Chronic health concern" defined. (NRS 445A.270) "Chronic health concern" means a concern regarding human health that occurs when:
1. Short-term exposure to a contaminant does not cause an immediate risk to human health but may result in adverse, long-term health symptoms; or
2. Long-term exposure may cause adverse health symptoms to develop over a long period.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67522 "Community water system" defined. (NRS 445A.270) "Community water system" means a public water system that:
1. Serves at least 15 service connections which are used by year-round residents; or
2. Regularly serves at least 25 year-round residents.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67523 "Completion of the water project" defined. (NRS 445A.270) "Completion of the water project" means the time at which:
1. A recipient has satisfied all requirements of a construction contract for a water project;
2. The recipient has placed the water project in service; and
3. The final disbursement of loan funds, including, without limitation, the release of retention funds, has been made to the recipient.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67524 "Construction" defined. (NRS 445A.270) "Construction" has the meaning ascribed to it in NRS 445A.215.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67525 "Distribution system" defined. (NRS 445A.270) "Distribution system" has the meaning ascribed to it in NAC 445A.65845.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67526 "Division" defined. (NRS 445A.270) "Division" has the meaning ascribed to it in NRS 445A.220.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67527 "Emergency situation" defined. (NRS 445A.270) "Emergency situation" occurs when:
1. Water at a public water system is contaminated or is likely to be contaminated to such an extent that it causes an imminent danger to public health and the contamination could not have been prevented by the operator of the system; or
2. There is a reduction of a source of potable drinking water for an extended period.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67528 "Environmental assessment" defined. (NRS 445A.270) "Environmental assessment" means a document that:
1. The division prepares or has prepared after it has reviewed and considered an environmental information document submitted by an applicant;
2. Provides the basis for the division to:
(a) Issue a finding of no significant impact; or
(b) Require the applicant to prepare and submit an environmental impact statement; and
3. Provides sufficient evidence and analysis to justify the action the division takes pursuant to subsection 2.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67529 "Environmental impact statement" defined. (NRS 445A.270) "Environmental impact statement" means a report that the division requires an applicant to prepare for a proposed water project if the division determines that the project will have a significant impact on the quality of the human environment or will generate controversy concerning the natural environment. The statement must include a detailed and formal evaluation of the favorable and adverse environmental and social impacts of the proposed water project and describe any alternative action that may be less environmentally disruptive.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6753 "Environmental information document" defined. (NRS 445A.270) "Environmental information document" means a document prepared by an applicant that contains sufficient information to enable the division to prepare or have prepared an environmental assessment.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67531 "EPA" defined. (NRS 445A.270) "EPA" means the United States Environmental Protection Agency.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67532 "Finding of no significant impact" defined. (NRS 445A.270) "Finding of no significant impact" means a determination by the division, after the review of an environmental information document and an environmental assessment, that:

1. A water project will not have a significant effect on the human environment; and
2. The division will not require the applicant to submit an environmental impact statement.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67533 "Intended use plan" defined. (NRS 445A.270) "Intended use plan" means a report that the division prepares which describes how this state will use the money it receives from the federal capitalization grant and the money it uses to provide the required matching funds to achieve the objectives of the Safe Drinking Water Act and further the goal of protecting public health.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67534 "Long-term loan" defined. (NRS 445A.270) "Long-term loan" is a loan for which the term for repayment exceeds 5 years, but does not exceed 20 years or the life of the water project, whichever is shorter, unless the term is extended by the division pursuant to NAC 445A.67561.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67535 "Maintenance" defined. (NRS 445A.270) "Maintenance" means the preservation of the functional integrity and efficiency of the equipment and structures of a water project and includes, without limitation, any necessary preventive maintenance, corrective maintenance and replacement of equipment or structures.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67536 "Median household income" defined. (NRS 445A.270) "Median household income" means the most recent estimated average household income level as determined from data from the United States Census Bureau or as documented by an applicant for the service area of the public water system.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67537 "Mitigation" defined. (NRS 445A.270) "Mitigation" includes, without limitation:

1. Avoiding an environmental impact by not taking certain action;
2. Minimizing an environmental impact by limiting the degree or magnitude of an action and its implementation;
3. Rectifying an environmental impact by repairing, rehabilitating or restoring the part of the environment affected;
4. Reducing or eliminating an environmental impact over time by preservation and maintenance during the life of the water project; or
5. Compensating for an environmental impact by replacing or providing substitute resources or environments.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67538 "Noncommunity water system" defined. (NRS 445A.270) "Noncommunity water system" means a public water system that is not a community water system.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67539 "Nonprofit" defined. (NRS 445A.270) "Nonprofit" means that a public water system is legally organized to return no profit to its owners or members and has a federal identification number for tax-exempt status.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6754 "Nontransient, noncommunity water system" defined. (NRS 445A.270) "Nontransient, noncommunity water system" means a public water system that is

not a community water system which regularly serves at least 25 of the same persons over a period of not less than 6 months.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67541 "Operation" defined. (NRS 445A.270) "Operation" means the management and control of the individual processes and equipment that comprise a public water system. The term includes, without limitation, financial management, the management of personnel and records, laboratory control, process control, safety and planning for emergency operations and efforts to comply with any relevant regulations.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67542 "Operation and maintenance" defined. (NRS 445A.270) "Operation and maintenance" means activities that are required to ensure the dependable and economical functioning of a water system.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67543 "Operator" defined. (NRS 445A.270) "Operator" has the meaning ascribed to it in NRS 445A.830.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67544 "Priority list" defined. (NRS 445A.270) "Priority list" means a list that the division prepares annually which sets forth the order in which the division will make financial assistance from the account for the revolving fund available to potential water projects.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67545 "Process of environmental review" defined. (NRS 445A.270) "Process of environmental review" means the development and evaluation of environmental information concerning a water project that enables the division, pursuant to NAC 445A.6758 to 445A.67612, inclusive, to make a determination whether to:
1. Grant a categorical exclusion;
2. Make a finding of no significant impact; or
3. Require the applicant to submit an environmental impact statement.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67546 "Professional engineer" defined. (NRS 445A.270) "Professional engineer" has the meaning ascribed to it in NRS 625.060.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67547 "Public water system" defined. (NRS 445A.270) "Public water system" has the meaning ascribed to it in NRS 445A.235.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67548 "Recipient" defined. (NRS 445A.270) "Recipient" means an applicant who has executed a contract for a loan with the division to receive financial assistance in the form of a loan from the account for the revolving fund.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67549 "Replacement" defined. (NRS 445A.270) "Replacement" means the obtaining and installation of any equipment, accessories or appurtenances during the life of a water project that are necessary to maintain the capacity and performance which the water project was designed to achieve. The term does not include major rehabilitation, repair or replacement of any capital or fixed assets of a water project.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6755 "Safe Drinking Water Act" defined. (NRS 445A.270) "Safe Drinking Water Act" has the meaning ascribed to it in NRS 445A.240.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67551 "Service connection" defined. (NRS 445A.270) "Service connection" has the meaning ascribed to it in NAC 445A.66375.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67552 "Short-term loan" defined. (NRS 445A.270) "Short-term loan" means a loan for which the term of repayment does not exceed 5 years.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67553 "Significant noncompliance" defined. (NRS 445A.270) "Significant noncompliance" occurs when, on two or more occasions during any period of 12 consecutive months, a public water system:
1. Fails to report the results of monitoring for;
2. Fails to take a sample for; or
3. Exceeds the maximum contaminant levels of,

any of the primary drinking water standards set forth in NAC 445A.453.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67554 "State clearinghouse" defined. (NRS 445A.270) "State clearinghouse" means the process for review by the state as established pursuant to the governor's executive order concerning intergovernmental review of federal programs of August 15, 1989.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67555 "Transient water system" defined. (NRS 445A.270) "Transient water system" means a noncommunity water system that serves fewer than 25 of the same persons over a 6-month period.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67556 "User charge" defined. (NRS 445A.270) "User charge" means:
1. Any charge levied on the users of a water project; or
2. Any portion of the ad valorem taxes that are paid by a user for his proportionate share of the cost of operation and maintenance of a water project, including, without limitation, replacement of the water project.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67557 "Water project" defined. (NRS 445A.270) "Water project" has the meaning ascribed to it in NAC 445A.66585 and includes, without limitation, any project for which the debt obligations of a public water system may be bought or refinanced pursuant to 42 U.S.C. § 300j-12(f)(2).
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67558 Process for public participation: Notice of workshop; contents of notice. (NRS 445A.270)
1. The division shall, as necessary, provide for a public participation process to provide interested or affected persons a reasonable opportunity to submit to the division orally or in writing data, views or arguments upon proposed water projects or proposed actions or determinations of the division.
2. Unless a hearing is required, the division shall hold a workshop to satisfy the requirements of subsection 1.

3. The division shall provide notice of the time and place set for the workshop not less than 15 days before the workshop, unless a longer period is required. The division may provide such notice by:

(a) Publishing a single notice in a newspaper of general circulation in an area affected by the proposed action;

(b) Mailing the notice to each interested person who requests to be on a mailing list maintained by the division;

(c) Mailing the notice to the appropriate federal and state agencies and municipalities; or

(d) Any other means reasonably calculated to provide such notice to the general public and any person who may be affected.

4. The notice must include:

(a) A description and the location of any proposed water project;

(b) A description of any proposed action or determination of the division;

(c) Reasons for any preliminary determination by the division;

(d) The time that the division will allow for public comments; and

(e) The address where the written comments may be sent.

5. The division shall clearly indicate the date by which any written comments concerning the subject of the workshop must be received by the division to receive consideration.

6. In any notice that it provides and at the workshop, the division shall clearly indicate what actions, if any, may result from the workshop.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67559 Procedure for review of actions taken by division. (NRS 445A.270)

1. An applicant or a recipient who has reason to believe that an action taken by an employee of the division pursuant to NAC 445A.6751 to 445A.67644, inclusive, is incorrect or based on inadequate knowledge may, within 10 business days after receiving notice of the action, request an informal discussion with the employee responsible for the action and the immediate supervisor of the employee. The informal discussion must be scheduled for a date, place and time mutually agreed upon by the applicant or recipient and the bureau, except that the informal discussion must be held no later than 30 days after the date on which the bureau received the request.

2. If the informal discussion does not resolve the problem, the applicant or the recipient may, within 10 business days after the date scheduled for the informal discussion, submit a written request to the bureau for an informal conference. The informal conference must be scheduled for a date, place and time mutually agreed upon by the applicant or recipient and the bureau, except that the informal conference must be held no later than 60 days after the date on which the bureau received the written request.

3. An applicant or recipient may not appeal a determination of the bureau resulting from the informal conference. Such a determination is the final remedy available to the aggrieved applicant or recipient.

4. As used in this section, “bureau” means the bureau of health protection services of the division, or its successor.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6756 Resolution of conflicting requirements; severability of provisions. (NRS 445A.270)

1. To the extent that any of the provisions of NAC 445A.6751 to 445A.67644, inclusive, conflict with any of the provisions of NAC 445A.450 to 445A.6731, inclusive, the provisions of NAC 445A.450 to 445A.6731, inclusive, prevail.

2. If any of the provisions of NAC 445A.6751 to 445A.67644, inclusive, or any application thereof to any person, thing or circumstance is held invalid, it is intended that such invalidity not affect the remaining provisions, or their application, that can be given effect without the invalid provision or application.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

Preliminary Procedures for Financing Water Projects and Other Authorized Activities

NAC 445A.67561 Eligibility for short-term or long-term loan for certain types and costs of water projects; limitations; extension of long-term loan. (NRS 445A.270)

1. The division shall provide an applicant with a short-term or long-term loan from the account for the revolving fund for a water project pursuant to the criteria set forth in this chapter.

2. The division shall determine the eligibility of a water project to receive a loan from the account for the revolving fund before the division establishes the priority list pursuant to NAC 445A.67567 to 445A.67571, inclusive.

3. Any change made by an applicant to the design of his proposed water project which the applicant makes after the division has determined that the water project is eligible for a loan, but before the board for financing water projects has committed to a loan contract, must be reported by the applicant to the division not later than 15 days after the applicant changes the design. The division may decide that a water project is no longer eligible for a loan based upon the design changes.

4. Water projects that are eligible for a loan from the account for the revolving fund are limited to systems which are not owned by the Federal Government that are:

(a) Publicly or privately owned community water systems; or

(b) Nonprofit, noncommunity water systems.

5. Water projects that are eligible for a loan from the account for the revolving fund include, without limitation, water projects which:

(a) Facilitate compliance with the health protection objectives of 42 U.S.C. § 300j-12(a)(2);

(b) Facilitate compliance with NAC 445A.453 and 445A.455;

(c) Replace aging infrastructure, if such infrastructure is needed to maintain compliance with or to further the public health protection goals of the Safe Drinking Water Act;

(d) Consolidate water supplies; or

(e) Facilitate the purchase of a portion of the capacity of another system to improve the cost efficiency of a public water system.

6. An applicant may be eligible to receive a loan from the account for the revolving fund if the water project involves:

(a) The replacement, rehabilitation or enhancement of an existing distribution system, or portions thereof, which is deemed necessary by the division for the integrity and performance of the public water system to satisfy the requirements of NAC 445A.450 to 445A.6731, inclusive; or

(b) The creation of a new distribution system designed primarily to serve residents within an existing water system who are using domestic wells which have public health or water quality problems. Such a distribution system must provide sufficient existing or planned capacity for the development, treatment and storage of the new water of the system. The applicant shall provide assurances acceptable to the division that the existing population in the service area of the public water system currently obtaining its water from domestic wells will connect to the new distribution system within a reasonable time after completion of the water project.

7. The division shall decide on a case-by-case basis the costs for which an applicant may receive a loan. The costs of a water project for which an applicant may receive a loan from the account for the revolving fund include, without limitation, costs for:

(a) Inspection;

(b) Construction management;

(c) Water project facilities;

(d) Land and rights-of-way or easements that are necessary to complete the water project;

(e) The preparation of any environmental documents that the division or any other state or federal agency requires; and

(f) Legal and financial services.

8. The division may extend the term of a long-term loan to 30 years under special conditions for a disadvantaged community.

9. As used in this section:

(a) "Disadvantaged community" means an area served by a public water system in which the average income per household is less than 80 percent of the average median household income of the county.

(b) "Domestic use" has the meaning ascribed to it in NRS 534.013.

(c) "Domestic well" means a well that supplies water for domestic use.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67562 Eligibility for short-term loan for certain costs of water project; incorporation of loans. (NRS 445A.270)

1. An applicant is eligible to receive a short-term loan from the account for the revolving fund for costs concerning:

(a) Planning and engineering to:

(1) Determine the causes of a problem of a public water system;

(2) Define potential solutions to a problem of a public water system; and

(3) Develop the information for the letter of intent required pursuant to NAC 445A.67577.

(b) Conducting preliminary or reconnaissance engineering;

(c) Preparing water project plans to satisfy the requirements of NAC 445A.450 to 445A.6731, inclusive;

(d) Preparing environmental information for the process of environmental review pursuant to NAC 445A.6758 to 445A.67612, inclusive;

(e) Preparing the information for the application required pursuant to NAC 445A.67613; or

(f) Any other planning activity approved by the division that is related to a water project.

2. At the time an applicant applies for a long-term loan, he may request that any short-term loan for which the applicant is liable be incorporated into the long-term loan.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67563 Ineligibility for financial assistance for certain costs associated with water project. (NRS 445A.270) The division shall not provide financial assistance from the account for the revolving fund for the following costs associated with a water project:

1. The construction or rehabilitation of a dam;

2. The purchase of water rights, unless the water rights are owned by a public water system that is being purchased in an effort to consolidate as part of a program to develop the capability of a water system;

3. The construction or rehabilitation of a reservoir other than:

(a) A finished water reservoir; or

(b) A reservoir that is part of the treatment process and is located on the property where the treatment facility is located;

4. Laboratory fees for monitoring water quality;

5. Expenses for operations and maintenance;

6. A project needed primarily for fire protection;

7. A water project for a public water system that lacks adequate capability, unless the financial assistance will ensure that the system acquires adequate capability;

8. A water project for a system that is in significant noncompliance with NAC 445A.453, unless the financial assistance will ensure full compliance;

9. A project that is primarily intended to serve future growth; or

10. Refinancing of a private system.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67564 Eligibility for money to refinance water project. (NRS 445A.270) An applicant is eligible to refinance a water project using money from the account for the revolving fund if the current debt obligation satisfies the requirements of 42 U.S.C. § 300j-12(f)(2).

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67565 Proposal for allotment of money for certain activities; use of money; application for capitalization grant. (NRS 445A.270)

1. Pursuant to the requirements of 42 U.S.C. §§ 300j-12(g)(2) and 330j-12(k), the division shall, at least annually, draft a proposal which sets forth the amount of money that the division will allot from the EPA allotment of available Safe Drinking Water Act funds for the various activities identified in the account for set-aside programs.

2. The division shall provide for a public participation process pursuant to NAC 445A.67558 to:

(a) Review a draft of the intended use plan for the account for set-aside programs; and

(b) Obtain and review comments and proposals concerning the use of funds allocated to the account for set-aside programs.

3. The division shall:

(a) Make its decisions concerning the use of money in the account for set-aside programs, taking into consideration the comments and recommendations made during the public participation review process set forth in subsection 2; and

(b) Prepare an intended use plan as required pursuant to NAC 445A.67574, 445A.67575 and 445A.67576.

4. The division shall submit to the EPA an application for the capitalization grant award to fund the account for set-aside programs either by itself or together with the application for the capitalization grant award to fund the account for the revolving fund.

5. The division shall develop and submit to the EPA a detailed work plan for each set-aside program if the EPA requires such a plan.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67566 Solicitation for proposals for water projects and other requests for financial assistance; preapplications; consideration of unsolicited proposals; maintenance of files. (NRS 445A.270)

1. At least annually, the division shall solicit from public water systems:

(a) Proposals in the form of preapplications for water projects; and

(b) Other requests for financial assistance from the account for the revolving fund.

2. After receiving proposals for water projects and other requests for financial assistance pursuant to subsection 1, the division shall:

(a) Establish eligibility of each water project and applicant to receive financial assistance;

(b) Determine the rank of each water project and request to receive financial assistance on the priority list in accordance with the provisions of NAC 445A.67567 to 445A.67571, inclusive; and

(c) Submit the priority list to the board for financing water projects.

3. If a proposed water project includes multiple phases, the applicant shall file a separate preapplication for each phase.

4. The preapplication must include, without limitation:

(a) The name, address and telephone number for the applicant or a representative of the applicant;

(b) A description of the proposed water project that indicates the project shall address specific public health concerns or problems;

(c) A map showing the location of the service area for the public water system and the water project;

(d) An estimate prepared by a professional engineer of the total cost of the water project;

(e) The estimated schedule for completion of the water project;

(f) Evidence of readiness of the applicant to proceed;

(g) The number of service connections currently being served by the public water system of the applicant;

(h) An estimate of the size of the population that is currently being served by the public water system of the applicant;

(i) Any other anticipated sources of funding for the water project from a state or federal agency or other entity;

(j) The median household income for the community or area that will be served or for the county in which the water project is located, including, without limitation, the source of that information;

(k) The anticipated impact of the costs of the water project to the rates or user charges for existing customers;

(l) The anticipated source of revenue to pay the principal and interest on the loan, including, without limitation, a description of any authorization that may be required to use that revenue for such a purpose; and

(m) Any additional information necessary to establish the priority rank for the water project.

5. An applicant must submit his preapplication no later than 60 days after the date the division solicits proposals for water projects.

6. Except as otherwise provided in this subsection, the division shall consider unsolicited proposals within the same 60-day period that the division considers solicited proposals. The division may consider a request for emergency assistance submitted pursuant to NAC 445A.67572 at any time.

7. The owner or an authorized representative of the owner or governing or managing body of a public water system shall sign the preapplication.

8. The division shall maintain all requests and proposals that an applicant submits pursuant to this section at the main office. The division shall make the files available to the public.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67567 Priority list: Development; consideration of water projects for funding; revision of ranking of water project. (NRS 445A.270)

1. At least annually, the division shall develop a statewide priority list of water projects from the solicitation process described in NAC 445A.67566. The division shall prioritize the list to achieve water quality and public health goals consistent with the requirements of the Safe Drinking Water Act.

2. The division shall integrate water projects that are on an existing priority list with new projects which are identified pursuant to subsequent solicitations.

3. Only those projects that are included on the priority list will be considered for possible funding. Placement on the list does not guarantee that a project will receive funding.

4. The division may at any time after receiving approval from the board for financing water projects revise the ranking of a water project on a priority list if:

(a) The division receives information concerning a water project that was not available at the time the list was developed;

(b) An applicant proposes a water project to correct an emergency situation pursuant to NAC 445A.67572; or

(c) It becomes necessary for the division to bypass a water project pursuant to NAC 445A.67573.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67568 Priority list: Considerations; contents. (NRS 445A.270)

1. When establishing the priority list, the division shall consider:

(a) The needs of the public water system;

(b) The types of corrective actions that are necessary to comply with state law or regulations;

(c) Any relevant court orders concerning the public water system;

(d) The total amount of money available in the account for the revolving fund; and

(e) Any other factors necessary to carry out the provisions of NAC 445A.67569, 445A.6757 and 445A.67571.

2. The priority list must include, without limitation:

(a) The name of each public water system that the division determines is eligible for financial assistance;

(b) The priority assigned to each proposed water project;

(c) A description of each water project;

(d) An estimate of the eligible costs of each proposed water project based on the best information available at the time the intended use plan is developed; and

(e) The existing population of the service area of each public water system at the time of application.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67569 Priority list: Criteria for ranking water projects; prioritizing requests for financial assistance. (NRS 445A.270)

1. The division shall rank water projects using the following criteria:

(a) The division shall determine whether each water system qualifies as a public water system pursuant to 42 U.S.C. § 300j-12 to satisfy the requirements set forth therein to receive loan assistance.

(b) The division shall place each water project into one of the following four classes:

(1) A Class I water project is intended to address problems, including, without limitation, demonstrated illness attributable to the public water system, significant noncompliance, a court-ordered compliance or acute health concerns related to meeting the water quality requirements of NAC 445A.453. The division shall prioritize Class I water projects, giving projects with a higher score priority over projects with a lower score, according to the total score each receives for demonstrated or documented noncompliance with:

(I) The rules governing the maximum contaminant levels of microbiological contaminants found in 40 C.F.R. § 141.63, 4 points;

(II) The rules governing the filtration and disinfection of surface water found in 40 C.F.R. §§ 141.70 to 141.75, inclusive, 3 points; and

(III) The rule governing the maximum contaminant levels of nitrate found in 40 C.F.R. § 141.62(b)(7)-(b)(9), 2 points.

(2) A Class II water project is intended to address chronic health concerns by satisfying the requirements for water quality set forth in NAC 445A.453 and 445A.455. The division shall prioritize Class II water projects, giving projects with a higher score priority over projects with a lower score, according to the total score each receives for:

(I) Demonstrated or documented noncompliance with:

(i) The rules governing the control of lead and copper found in 40 C.F.R. §§ 141.80 to 141.90, inclusive, 15 points;

(ii) The rule governing the maximum allowable levels of volatile organic contaminants found in 40 C.F.R. § 141.61(a), 11 points;

(iii) The rule governing the maximum allowable levels of synthetic organic contaminants found in 40 C.F.R. § 141.61(c), 9 points;

(iv) The rule governing the maximum allowable levels of inorganic compounds found in 40 C.F.R. § 141.62(b)(1)-(b)(6), (b)(10)-(b)(13) and b(15), 7 points; or

(v) The rule governing the maximum allowable levels of radium-226, radium-228 and gross alpha particle radioactivity found in 40 C.F.R. § 141.15, 5 points; or

(II) Exceeding any one of the secondary drinking water standards found in NAC 445A.455, 1 point each.

(3) A Class III water project is intended to address deteriorated, substandard or inadequate conditions in the public water system. The division shall prioritize Class III water projects, giving projects with a higher score priority over projects with a lower score, according to the total score each project receives for the following types of water projects:

(I) The consolidation of water supplies or facilities to eliminate water supplies that are contaminated, eliminate facilities that do not meet state regulations, or enable systems through a physical or management consolidation to comply with technical, managerial and financial capability requirements, 25 points;

(II) The rehabilitation or replacement of treatment facilities that would improve the quality of drinking water to avoid noncompliance with NAC 445A.453 and 445A.455, 20 points;

(III) The rehabilitation, replacement or development of production facilities to replace contaminated sources, 15 points;

(IV) The installation or upgrading of storage facilities associated with finished water reservoirs and reservoirs that are part of a water treatment facility and located on the property where the treatment facility is located to prevent microbiological contaminants from entering the water system, 10 points;

(V) The installation or replacement of transmission pipes to prevent contamination caused by leaks or breaks in the pipes or to improve water pressure to satisfy the requirements of NAC 445A.6672, 8 points;

(VI) The installation or replacement of distribution pipes to prevent contamination caused by leaks or breaks in the pipes or to improve water pressure to satisfy the requirements of NAC 445A.6672, 6 points;

(VII) The installation of equipment, facilities or devices to prevent contamination by backflow or cross-connections and to satisfy the requirements of NAC 445A.67185 to 445A.67255, inclusive, 4 points; and

(VIII) The installation of metering, if the metering is intended to satisfy the requirements of water conservation plans developed to comply with NRS 540.121 to 540.151, inclusive, 704.662, 704.6622 and 704.6624, 3 points.

(4) A Class IV project consists of refinancing any existing debt that was incurred after July 1, 1993, pursuant to 42 U.S.C. § 300j-12(f)(2).

2. The division shall rank water projects first according to which class the project is in, with Class I water projects having the highest priority and Class IV water projects having the lowest priority, and then within the class according to the point total each water project receives pursuant to the ranking system set forth in subsection 3.

3. Within each class, the water projects will be ranked according to the type of public water system the project will affect in the following order:

(a) Community public water systems;

(b) Nonprofit, nontransient water systems; and

(c) Nonprofit, transient water systems.

4. The division shall not move a water project from one class to another based on the ranking the water project receives from the total points within each class or combination of classes.

5. For priority lists determined before October 1, 1998, if two or more water projects within a class receive the same number of points assigned pursuant to subsections 1 and 2 and are within the same type of water system as determined pursuant to subsection 3, the division shall prioritize each water project according to household income with the water project assigned the lowest median household income given the highest ranking. If necessary, the division shall then determine the population served by each project, with the higher population served given the higher ranking.

6. For priority lists determined after September 30, 1998, the product of the initial rank number of a water project within a class of water projects and the ratio of the statewide median household income to the median household income that is associated with the service area served by the public water system determines the final rank number associated with the water project within each class.

7. Requests for financial assistance for emergency situations may be made to the division at any time pursuant to NAC 445A.67572.

8. The division may also provide financial assistance pursuant to NAC 445A.67562 for planning and engineering to determine causes of problems in the public water system and to define and carry out solutions. The division shall prioritize such a project in the order appropriate to the problem that the water project is intended to solve.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6757 Priority list: Public review and comment; development of final or revised list. (NRS 445A.270)

1. The priority of water projects determined by the division pursuant to NAC 445A.67567 to 445A.67571, inclusive, is subject to the approval of the board for financing water projects.

2. Except as otherwise provided in NAC 445A.67572, the division shall hold a public participation workshop pursuant to NAC 445A.67558 to allow for a period of public review of and to comment on its proposed priority list or a revised priority list.

3. The division shall consider comments and recommendations made in the public participation process in developing its final priority list or a revised priority list to be presented to the board for financing water projects.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67571 Priority list: Submission for approval; objections to ranking of water projects. (NRS 445A.270)

1. After the division finalizes the priority list and at least 15 days before the meeting of the board for financing water projects, the division shall:

(a) Submit the priority list to the board for financing water projects for approval; and

(b) Provide a copy of the proposed final priority list to each person who submitted a preapplication to the division.

2. Any objection to the ranking of water projects on a proposed priority list must be filed with the division in writing not later than 7 days before the meeting of the board for financing water projects.

3. Objections to the proposed priority list that are not resolved by the division before the meeting of the board for financing water projects may be made orally at the meeting of the board for financing water projects.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67572 Request for financial assistance in emergency situation. (NRS 445A.270)

1. In an emergency situation, an applicant requesting assistance from the account for the revolving fund may follow the application procedures set forth in NAC 445A.67613 to 445A.67616, inclusive, without waiting for a revision to the priority list.

2. The division shall provide notice by mail to all applicants on the approved priority list of an application filed pursuant to subsection 1 and provide an opportunity for any comments or objections to be filed with the division not later than 30 days after the date of the notice. Objections filed after this date will not be considered.

3. If there are objections that cannot be resolved by the division before proceeding with the application filed pursuant to subsection 1, the division may request that the matter be heard at the next meeting of the board for financing water projects for resolution. A minimum of 15 days' notice of the matters to be considered by the board for financing water projects will be provided by the division to all the public water systems that are represented on the priority list.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67573 Bypassing water project on priority list. (NRS 445A.270)

1. The division may bypass a water project on the priority list if it determines that the water project is not ready to proceed or the applicant for the project:

(a) Withdraws the water project;

(b) Requests action to be deferred as allowed pursuant to subsection 2 of NAC 445A.67577; or

(c) Fails to file a letter of intent as required pursuant to NAC 445A.67577 and 445A.67578.

2. If the division determines that the water project is not ready to proceed, the division shall provide notice of its determination to the applicant. After receiving notice, the applicant must respond to the division within 30 days.

3. If the applicant files an objection in the response provided for in subsection 2 that cannot be resolved by the division, the division shall request that the matter be heard at the next meeting of the board for financing water projects for hearing and resolution. The division shall provide at least 15 days' notice of the meeting to the affected applicant.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67574 Intended use plan: Incorporation of priority list; inclusion in application for capitalization grant agreement. (NRS 445A.270) The priority list approved by the board for financing water projects will be incorporated into the intended use plan developed pursuant to NAC 445A.67575 and 445A.67576 and submitted with other required information to the EPA in the application for the annual capitalization grant agreement or an amendment to a capitalization grant agreement for the account for the revolving fund.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67575 Intended use plan: Preparation; contents. (NRS 445A.270)

1. An intended use plan must be prepared by the division which describes how all money deposited into the account for the revolving fund and the account for set-aside programs will be used. The intended use plan must include a description of:

(a) How all money that is made available to the account for the revolving fund and the account for set-aside programs will be used, including, without limitation, money from the following sources:

(1) Capitalization grants; and

(2) State matching funds, including, without limitation, gifts, appropriations, contributions, grants and bequests of money from any public or private source;

(b) How loan repayments will be made;

(c) How interest earnings and bond proceeds will be handled;

(d) The criteria and method used for the distribution of funds;

(e) The financial status of the program;

(f) The short- and long-term goals of the program;

(g) The amounts of money transferred between the account for the revolving fund and the account to finance the construction of treatment works and the implementation of pollution control projects created pursuant to NRS 445A.120;

(h) Any program for a disadvantaged community and the funds utilized for this type of assistance;

(i) The method employed by the division to rank water projects on the priority list;

(j) Priority lists for:

(1) Water projects that will receive funding in the first year after the grant award; and

(2) Water projects that are eligible for funding in future years;

(k) Procedures for altering the status of water projects on the priority list, including, without limitation, the addition of water projects addressing emergency situations; and

(l) The process used to obtain public review and comment of the intended use plan and a summary of responses to any substantial public comments received.

2. As used in this section, "disadvantaged community" means an area served by a public water system in which the average income per household is less than 80 percent of the average median household income of the county in which the area is located.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67576 Intended use plan: Public review and comment; availability of final plan. (NRS 445A.270)

1. The division shall conduct a public participation process to obtain public comment and review pursuant to NAC 445A.67558 before finalizing its intended use plan.

2. Copies of the final intended use plan containing the information set forth in NAC 445A.67575 must be made available in the offices of the bureau of health protection services of the division, or its successor, and in the main public library of each county throughout this state.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67577 Receipt of notification letter; filing of letter of intent. (NRS 445A.270)

1. Not later than 15 days after the priority list is approved by the board for financing water projects pursuant to NAC 445A.67571, the division shall notify each applicant of the priority list of the ranking of water projects.

2. Not later than 30 days after the notification letter is sent to each applicant pursuant to subsection 1, each applicant shall file with the division a letter of intent, indicating its intentions to either:

(a) Proceed with an application for financial assistance for proposed water projects; or

(b) Defer action on an application until a later time.

3. Failure to respond within 30 days after reviewing the notification letter may result in the bypass of the applicant's water project for that year pursuant to the procedure set forth in NAC 445A.67573. The applicant's water project will remain on the priority list for consideration in the following year.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67578 Letter of intent: Contents; address; number of copies. (NRS 445A.270)

1. The letter of intent must include:

(a) The name, address and telephone number of each applicant;

(b) The title or name, the location and a brief description of the proposed water project, including, without limitation, maps or preliminary plans;

(c) The number of residential service connections with population served and the number of nonresidential service connections with population served;

(d) A preliminary estimate of the cost of the water project improvement and any additional costs necessary for financing the water project improvement;

(e) Preliminary environmental information on a form provided by the division;

(f) A description of future improvements planned by the applicant, if any, that are not part of the capital improvement for which the application is made;

(g) A brief description of how the water project improvement would make the system comply with the requirements for public water systems;

(h) A statement that the plan of water conservation adopted pursuant to NRS 540.121 to 540.151, inclusive, or 704.662, 704.6622 and 704.6624 will be, or has been, filed with the appropriate regulatory body before receipt of the loan;

(i) The anticipated schedule for filing an application;

(j) A request to determine whether the water project is eligible for a categorical exclusion;

(k) Any additional information required by the division; and

(l) A brief description of any material changes to the water project that were proposed in the preapplication.

2. The letter of intent must be addressed to the State Health Division, Bureau of Health Protection Services, Drinking Water State Revolving Fund, 1179 Fairview Drive, Carson City, Nevada 89701-5405.

3. An applicant shall provide the original and two copies of the letter of intent to the division.

4. The applicant's letter of intent to proceed with the proposed water project serves as a request to the division to:

(a) Schedule the preapplication conference pursuant to NAC 445A.67579; and

(b) Initiate the process of environmental review pursuant to NAC 445A.6758 to 445A.67612, inclusive.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67579 Preapplication conference. (NRS 445A.270)

1. The division shall schedule a preapplication conference not later than 45 days after the division receives the letter of intent from the applicant.

2. The owner, an authorized representative of the owner, or the governing or managing body of the public water system of the applicant must attend the preapplication conference.

3. The purposes of the preapplication conference are to:

(a) Acquaint the applicant with the general, legal and fiscal requirements of an application for funding;

(b) Assist the applicant in:

(1) Determining the terms and conditions of the financial assistance, including, without limitation, the interest rate and the amortization schedule of the loan;

(2) Identifying other appropriate sources of financing for the applicant's water project, if applicable; and

(3) Developing the information necessary to complete an application; and

(c) Establish the requirements for the process of environmental review pursuant to NAC 445A.6758 to 445A.67612, inclusive.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

Environmental Review of Proposed Water Projects

NAC 445A.6758 Initiation of process of environmental review: Application; plan for water project; changes in water project or environmental conditions. (NRS 445A.270, 445A.295)

1. The division shall initiate the process of environmental review after receiving a letter of intent from the applicant pursuant to NAC 445A.67577 and 445A.67578.

2. The process of environmental review must occur simultaneously with the preparation of the application.

3. An applicant shall consult with the division during the preparation of the plan for the water project to:

(a) Determine whether the division shall require the applicant to evaluate alternatives to the proposed water project; and

(b) Identify potential environmental issues associated with the proposed water project.

4. If, at any point during or after the process of environmental review, but before a loan contract is executed, the division determines that the water project or environmental conditions have changed significantly from those that existed during the initial process of review, the division may delay execution of the contract to complete an environmental review based upon the new information.

5. If, after a loan contract is executed, the division determines that the water project or environmental conditions have changed significantly from those that existed during the initial process of review, the division may delay the water project until the division is able to determine the impact of the changes.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67581 Submission of environmental review not required under certain circumstances. (NRS 445A.270, 445A.295) The division shall not require an applicant to complete and submit an environmental review pursuant to NAC 445A.6758 to 445A.67612, inclusive, if the applicant submits with his application a permit for construction issued by the public utilities commission of Nevada pursuant to NRS 704.890.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67582 Categorical exclusion: Review of request; determination by division. (NRS 445A.270, 445A.295)

1. The division shall review a request by an applicant for a categorical exclusion based on the environmental information provided by the applicant pursuant to paragraph (e) of subsection 1 of NAC 445A.67578 and any other relevant information that is submitted to the division to determine whether:

(a) The water project is eligible for a categorical exclusion; or

(b) The division shall require the applicant to file an environmental information document pursuant to NAC 445A.67587.

2. If the water project is determined by the division to be eligible for a categorical exclusion pursuant to NAC 445A.67583, the division shall issue notice of its intent to grant a categorical exclusion pursuant to NAC 445A.67584.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67583 Categorical exclusion: Eligibility of water project. (NRS 445A.270, 445A.295)

1. To determine whether a water project is eligible for a categorical exclusion, the division shall review:

(a) The information included in the letter of intent filed by the applicant pursuant to NAC 445A.67578; and

(b) The information presented during the preapplication conference held pursuant to NAC 445A.67579.

2. The following types of water projects may be eligible for a categorical exclusion:

(a) The rehabilitation of an existing facility;

(b) The replacement of equipment or structures;

(c) Construction of a small structure on an existing site;

(d) Minor upgrading or expansion of the existing capacity of:

(1) The distribution system of a public water system; or

(2) A public water system to develop and treat water; or

(e) Any other water project for which there is sufficient evidence that a significant effect on the quality of the environment is unlikely.

3. The following types of water projects are ineligible for a categorical exclusion:

(a) A water project that creates a new source of water supply;

(b) A water project that results in more than a minor increase in the capacity of:

(1) The distribution system of a public water system; or

(2) A public water system to develop and treat water;

(c) A water project that is known or expected to have a significant effect on the quality of the human environment, regardless of whether the project:

(1) Will have an immediate significant effect on the environment; or

(2) Will cause the significant effect cumulatively over time,

individually or in conjunction with other private actions or federal, state or local governmental actions;

(d) A water project that is known or expected to affect directly or indirectly:

(1) Recognized cultural resources;

(2) Habitats of endangered or threatened species;

(3) Environmentally important natural resource areas, including, without limitation:

(I) Floodplains;

(II) Wetlands;

(III) Important farmlands;

(IV) Aquifer recharge zones;

(V) Scenic areas; or

(VI) Other resource areas; or

(e) A water project that is known or expected not to be cost-effective or cause significant public controversy concerning the natural environment.

4. As used in this section, "capacity" means the physical or volumetric ability of the water system to deliver water to consumers.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67584 Categorical exclusion: Public notice. (NRS 445A.270, 445A.295)

1. If the division determines that a water project is eligible for a categorical exclusion pursuant to NAC 445A.67583, the division shall provide notice of its intent to grant the categorical exclusion.

2. The notice that the division provides pursuant to subsection 1 must be:

(a) Published at least once in a newspaper of general circulation throughout the area affected;

(b) Provided to persons potentially affected by the water project, including, without limitation, adjacent landowners;

(c) Mailed by the division to each person included on a mailing list maintained by the division;

(d) Provided to appropriate federal and state agencies; and

(e) Submitted to the state clearinghouse for review by other federal and state agencies.

3. The notice must include:

(a) A description and location of the proposed water project, or proposed action or determination of the division;

(b) Reasons supporting the division's preliminary determination of eligibility of a water project for categorical exclusion;

(c) The time that the division will allow for public comment; and

(d) The address to which written comments may be sent.

4. The division shall not consider comments that it receives more than 30 days after it has provided the notice in the manner set forth in subsection 2.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67585 Categorical exclusion: Criteria for granting exclusion; response to public comments. (NRS 445A.270, 445A.295)

1. The division shall grant a categorical exclusion to an applicant if:

(a) The division does not receive any significant comments pursuant to the notice it provides pursuant to NAC 445A.67584; and

(b) The water project is otherwise eligible for the categorical exclusion.

2. The division shall review any comments that it receives pursuant to NAC 445A.67584 and respond to any comments which the division determines are significant before the division:

(a) Makes its final determination concerning whether to grant the categorical exclusion; or

(b) Reaffirms a determination to grant a categorical exclusion that the division had previously granted pursuant to NAC 445A.67586.

3. After the division grants a categorical exclusion, no further action is required by the division or the applicant concerning the process of environmental review.

4. If any issues or objections raised pursuant to the comments submitted to the division pursuant to NAC 445A.67584:

(a) Are resolved, the division may grant the categorical exclusion.

(b) Remain unresolved and the division determines that a water project is ineligible for a categorical exclusion, the applicant shall prepare an environmental information document pursuant to NAC 445A.67587.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67586 Categorical exclusion: Reevaluation of decision by division to grant exclusion. (NRS 445A.270, 445A.295)

1. If 5 years or more have passed since the division has granted a water project a categorical exclusion and the division has not yet recommended approval to the board for financing water projects, the division shall reevaluate its decision to grant the exclusion taking into consideration current environmental conditions and public views.

2. If the division finds as a result of the review it undertakes pursuant to subsection 1 that:

(a) No significant changes have occurred since the division granted the original categorical exclusion, the division shall, before recommending approval of the water project to the board for financing water projects, issue a notice of its intention not to rescind its grant of the categorical exclusion pursuant to the procedures set forth in NAC 445A.67584 and 445A.67585.

(b) Additional information is necessary, the division may require the applicant to file an environmental information document and follow any additional requirements of the process of environmental review set forth in NAC 445A.67587 to 445A.67612, inclusive.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67587 Environmental information document: Preparation; contents. (NRS 445A.270, 445A.295)

1. If the division determines that a water project is ineligible for a categorical exclusion, the applicant shall prepare an environmental information document for the water project. The applicant shall include the environmental information document with, or append it to, the application. The environmental information document may make reference to specific sections of the application in lieu of duplicating information found in the application.

2. The environmental information document must include, without limitation:

(a) A description of the proposed water project;

(b) The purpose of the proposed water project;

(c) Reasons why the proposed water project is needed;

(d) A description of the environmental setting of the proposed water project and prediction of what the future of the environmental setting would be without the water project;

(e) A description of possible alternatives to the proposed water project and the potential environmental impacts of such alternatives;

(f) A description of the potential environmental impacts that the proposed water project will have, including, without limitation, specification of those environmental impacts which cannot be avoided after the project is completed;

(g) A description of how any short-term detrimental impact to the environment in the short term is justified by the maintenance and enhancement of the environment from the long-term use of the facility;

(h) Any irreversible and irretrievable commitments of resources to the proposed water project;

(i) Documentation of any activities, meetings or coordination between the applicant and the public or any appropriate governmental agencies to identify and discuss issues associated with the proposed water project and allow public and agency review of the project; and

(j) A summary of any issues raised about, and changes made by the applicant to, the water project that were made as a result of the activities, meetings or coordination documented pursuant to paragraph (i).

3. The environmental information document must describe any significant environmental effects that the applicant believes the proposed water project will have.

4. The effects that the applicant describes must include, without limitation:

(a) The primary, secondary and indirect impacts of construction;

(b) The cumulative impacts of the applicant's proposed water projects together with other similar actions that have been taken, regardless of who has taken them; and

(c) The impacts on:

(1) Threatened or endangered species;

(2) Wetlands;

(3) Environmentally significant agricultural land;

(4) Fish and wildlife;

(5) Cultural resources;

(6) Open spaces;

(7) Environmentally sensitive areas;

(8) Air quality;

(9) Ground water and surface water quality and quantity;
(10) Land-use plans;
(11) Energy use;
(12) Long-term versus short-term trade-offs of costs and benefits;
(13) Accommodation of water projects to future population growth;
(14) Floodplains; and
(15) Areawide planning.

5. Water projects funded from the account for the revolving fund must conform to any state implementation plan or air quality management district plan approved or promulgated pursuant to 42 U.S.C. §§ 7401 et seq.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67588 Draft environmental assessment: Preparation; contents; public review and comment. (NRS 445A.270, 445A.295)

1. The division shall review the environmental information document and other material submitted by the applicant and shall have the applicant prepare a draft environmental assessment of the proposed water project in sufficient detail to serve as an independent environmental review. The draft environmental assessment may incorporate by reference the environmental information document.

2. The division may require the applicant to submit supplementary information to complete the draft environmental assessment.

3. The draft environmental assessment must include:

(a) Identification of potentially significant environmental concerns and all potential environmental impacts;

(b) An analysis of the existing environmental conditions relevant to the analysis of alternatives or to determining the environmental impacts of the proposed action;

(c) A prediction of the future environmental conditions for the area of the water project if the water project is not yet completed;

(d) The purpose of the facility;

(e) A summary description of the need for the facility, including, without limitation, a description of the severity and extent of existing public health or water quality problems;

(f) A comparative analysis of feasible alternatives to the water project, including, without limitation, the alternative that the water project not be constructed, reviewed with respect to:

(1) Capital and operating costs;
(2) Direct, indirect and cumulative environmental effects;
(3) Physical, legal or institutional constraints; and
(4) Compliance with regulatory requirements;

(g) The environmental consequences of long-term or irreversible environmental impacts;

(h) The reasons for rejecting any alternative, including, without limitation, a description of any significant environmental benefits that will be precluded by rejection of an alternative;

(i) A description of the full range of relevant environmental impacts of the proposed action, including, without limitation, a description of measures taken by the applicant to mitigate adverse impacts and of any irreversible commitments of resources to the water project;

(j) A description of any specific requirements the applicant has for the water project, including, without limitation, a description of any conditions imposed on the applicant for financial assistance and the requirements of any relevant regional planning;

(k) Sources of information that the applicant used to describe the existing environment and to assess future environmental impacts, including, without limitation, regional, state and federal agencies; and

(l) Any other information or documentation that the division requests.

4. The division shall make the draft environmental assessment available for review and comment by the public in a public participation process that conforms with the procedures set forth in NAC 445A.67558, except that the division shall provide notice of the time and place for the meeting not less than 15 days before the meeting.

5. After the division considers any comments offered pursuant to the public participation process, the division shall issue:

(a) A preliminary finding of no significant impact pursuant to NAC 445A.67589 to 445A.67592, inclusive; or

(b) A notice of intent to prepare an environmental impact statement pursuant to NAC 445A.67593 to 445A.67612, inclusive.

6. After an applicant has received a notice of intent to prepare an environmental impact statement pursuant to paragraph (b) of subsection 5, the applicant may request that his proposed water project be partitioned into two or more discrete components for the purposes of the process of environmental review pursuant to NAC 445A.67593.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67589 Finding of no significant impact: Public notice. (NRS 445A.270, 445A.295)

1. If the division determines that it intends to make a finding of no significant impact for a water project, the division shall provide notice of its intention using the procedures for providing notice set forth in subsection 2. The division shall list in its finding all mitigation measures the applicant must take.

2. The notice provided pursuant to subsection 1 must be:

(a) Published at least once in a newspaper of general circulation throughout the area affected;

(b) Provided to persons potentially affected by the water project, including, without limitation, adjacent landowners;

(c) Mailed by the division to each person included on a mailing list maintained by the division;

(d) Provided to appropriate federal and state agencies; and

(e) Submitted to the state clearinghouse for review by other federal and state agencies.

3. The notice must include:

(a) A description and location of the proposed water project, or proposed action or determination of the division;

(b) Reasons supporting the division's preliminary finding of no significant impact for the project;

(c) The time that the division will allow for public comment; and

(d) The address to which written comments may be sent.

4. The division will not consider comments that the division receives more than 30 days after it has provided notice in the manner set forth in subsection 3.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6759 Finding of no significant impact: Criteria for issuance; response to public comments. (NRS 445A.270, 445A.295)

1. The division shall issue a finding of no significant impact to an applicant if:

(a) The division does not receive any significant comments pursuant to the notice it provides pursuant to NAC 445A.67589; and

(b) The water project is otherwise eligible for a finding of no significant impact.

2. The division shall review any comments that it receives pursuant to NAC 445A.67589 and respond to any comments which it deems significant before the division completes the process of environmental review and makes its final determination of whether to issue a finding of no significant impact.

3. After the division issues a finding of no significant impact, no further action is required by the division or the applicant concerning the environmental review.

4. If any issues or objections raised pursuant to the comments submitted to the division pursuant to NAC 445A.67589:

(a) Are resolved, the division may issue a finding of no significant impact.

(b) Remain unresolved and the division determines that a water project is ineligible for a finding of no significant impact, the applicant shall prepare and submit an environmental impact statement pursuant to NAC 445A.67594 to 445A.67612, inclusive.

5. If an applicant is required to prepare an environmental impact statement pursuant to paragraph (b) of subsection 4, the applicant may request that his proposed water project be partitioned into two or more discrete components for the purposes of the process of environmental review pursuant to NAC 445A.67593.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67591 Finding of no significant impact: Reevaluation of decision by division to issue finding. (NRS 445A.270, 445A.295)

1. If 5 years or more have passed since the division has issued a finding of no significant impact to a water project and the division has not yet recommended approval to the board for financing water projects, the division shall reevaluate its decision to issue the finding taking into consideration current environmental conditions and public views.

2. If the division finds as a result of the review it undertakes pursuant to subsection 1 that:

(a) No significant changes have occurred since the division originally issued the finding of no significant impact, the division shall, before recommending approval of the water project to the board for financing water projects, issue a notice of its intention not to rescind its finding of no significant impact pursuant to the procedures set forth in NAC 445A.67589 to 445A.67592, inclusive.

(b) Additional information is necessary to supplement the original environmental information document, the division may require the applicant to prepare and submit an environmental impact statement pursuant to NAC 445A.67594 to 445A.67612, inclusive.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67592 Execution of loan contract following finding of no significant impact. (NRS 445A.270, 445A.295)

1. After the division has issued a finding of no significant impact to an applicant pursuant to NAC 445A.6759, the division may execute a loan contract with the applicant pursuant to NAC 445A.67617 to 445A.67623, inclusive.

2. The division shall ensure that the applicant will carry out any mitigation measures that the division requires by conditioning the applicant's receipt of financial assistance upon the applicant's carrying out the mitigation measures.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67593 Partitioning of water project into discrete components: Request; requirements; determination by division. (NRS 445A.270, 445A.295)

1. An applicant may request that the division allow the applicant to partition a water project into two or more discrete components if:

(a) The division has determined that it will require the applicant to prepare and submit an environmental impact statement for the entire proposed water project pursuant to NAC 445A.67594 to 445A.67612, inclusive;

(b) The applicant has identified for the division the reasonable alternatives to the entire proposed water project; and

(c) The remainder of the proposed water project satisfies the requirements of NAC 445A.67587 to 445A.67612, inclusive.

2. Each discrete component of a proposed water project that is partitioned pursuant to subsection 1 is subject to the process of environmental review.

3. A request for partitioning submitted pursuant to subsection 1 must contain:

(a) A description of the discrete component of the proposed water project for which the applicant is requesting financial assistance;

(b) A description of how the discrete component satisfies the requirements set forth in subsection 4; and

(c) Any environmental information that the division requires to make a final determination on the process of environmental review.

4. For a proposed water project to qualify for partitioning, the discrete component of the project for which the applicant is requesting financial assistance must:

(a) Immediately remedy an acute or severe public health or water quality problem;

(b) Not foreclose any reasonable alternatives identified for the entire proposed water project;

(c) Not cause significant, adverse, direct or indirect environmental impacts, including, without limitation, impacts that cannot be acceptably mitigated without finishing the entire proposed water project; and

(d) Not cause a high degree of controversy among persons who will be affected by the discrete component of the proposed water project.

5. Upon receiving a request to partition a proposed water project, the division shall determine whether partitioning is appropriate pursuant to this section.

6. The division may partition an applicant's water project only if the division determines that not doing so would:

(a) Significantly increase the cost of the entire proposed water project; or

(b) Significantly reduce the effectiveness of the entire proposed water project.

7. If the division partitions an applicant's water project, the division may execute a loan contract with the applicant to fund only any portion of the project that the division has approved pursuant to NAC 445A.67617 to 445A.67623, inclusive.

8. If the division determines that partitioning:

(a) Is appropriate, the division shall prepare and issue a finding of no significant impact for the discrete component pursuant to the procedures set forth in NAC 445A.67589 to 445A.67592, inclusive.

(b) Is not appropriate, the division shall provide the applicant with notice of its determination.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67594 Environmental impact statement: When required. (NRS 445A.270, 445A.295) The division shall require an applicant to prepare and submit an environmental impact statement if the division determines that:

1. The applicant's proposed water project is not eligible for a categorical exclusion or a finding of no significant impact; and

2. The water project is known or expected to:

(a) Have a significant effect on the quality of the human environment, individually, cumulatively over time or in conjunction with other federal, state, local or private actions; or

(b) Affect, directly or indirectly, recognized:

(1) Cultural resources;

(2) Habitats of endangered or threatened species;

(3) Environmentally important natural resource areas, including, without limitation:

(I) Floodplains;

(II) Wetlands;

(III) Environmentally significant agricultural land;

(IV) Aquifer recharge zones;

(V) Scenic areas; or

(VI) Other resource areas.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67595 Environmental impact statement: Public notice; meeting of interested parties; preparation of draft. (NRS 445A.270, 445A.295)

1. After the division determines that it shall require an applicant to prepare and submit an environmental impact statement for a proposed water project, the division shall provide notice of its intent to require the applicant to prepare an environmental impact statement.

2. The notice provided pursuant to subsection 1 must be:

(a) Published at least once in a newspaper of general circulation throughout the area affected;

(b) Provided to persons who are potentially affected by the water project, including, without limitation, adjacent landowners;

(c) Mailed by the division to each person included on a mailing list maintained by the division for the water project;

(d) Provided to appropriate federal agencies; and

(e) Submitted to the state clearinghouse for review by other federal and state agencies.

3. The notice issued pursuant to subsection 1 must include, without limitation:

(a) A description and location of the proposed water project;

(b) Reasons supporting the division's determination to require the applicant to prepare and submit an environmental impact statement for the proposed water project; and

(c) The address of the applicant so that interested persons can file comments or inquire about the time and location of any meetings which are scheduled to discuss alternatives to the proposed water project.

4. As soon as possible after the division provides the notice required pursuant to subsection 1, the applicant shall convene a meeting of affected federal, state and local agencies, affected Indian tribes, the division and any other interested party to determine the scope of the environmental impact statement.

5. At the meeting that the applicant convenes pursuant to subsection 4, the applicant shall:

(a) Determine the significant issues that the applicant will need to analyze in depth in the environmental impact statement;

(b) Identify the range of alternatives to his proposed water project that the applicant must consider;

(c) Identify any agencies that may have an interest in the environmental impact statement and the information that the applicant may need from each agency; and

(d) Discuss the method that the applicant will use to:

(1) Prepare the environmental impact statement; and

(2) Ensure public participation.

6. As soon as possible after the meeting required pursuant to subsection 5, the applicant shall document as part of the environmental impact statement:

(a) The issues concerning the proposed water project that were raised at the meeting;

(b) An evaluation of any viable methods of addressing the issues raised at the meeting;

(c) Any additional issues that are raised while evaluating the issues raised at the meeting and an evaluation of any viable methods of addressing these new issues; and

(d) Any issues raised at the meeting that the applicant decides are not relevant to his water project.

7. The applicant shall prepare, or have prepared, a draft environmental impact statement for the water project. The applicant shall pay the costs of preparing the draft environmental impact statement.

8. If a federal agency is required by law to prepare an environmental impact statement, the division and the applicant are not required to pay the costs of preparing the environmental impact statement and shall cooperate with the federal agency in preparing the statement.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67596 Environmental impact statement: Public workshops; additional procedures for ensuring public participation. (NRS 445A.270, 445A.295)

1. The division shall schedule and hold public workshops concerning an environmental impact statement pursuant to NAC 445A.67558, and division shall provide notice of each workshop not less than 30 days before the date of the workshop.

2. The division shall schedule not less than two public workshops concerning an environmental impact statement.

3. The division shall hold a public workshop only after alternatives to a proposed water project have been developed but before a draft of the environmental impact statement is done.

4. The division may institute any additional procedures for ensuring public participation as it determines are necessary.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67597 Environmental impact statement: Distribution of draft by applicant; public notice of availability of draft. (NRS 445A.270, 445A.295)

1. The applicant shall:

(a) Provide five copies of the draft environmental impact statement to the division;

(b) Provide copies of the draft environmental impact statement to all local, state and federal agencies and public organizations that have an interest in the proposed water project; and

(c) Make copies of the draft environmental impact statement available for public review.

2. The division shall provide notice of the availability of the draft environmental impact statement for review as soon as possible after the division receives copies of the draft.

3. The notice provided pursuant to subsection 2 must be:

(a) Published at least once in a newspaper of general circulation throughout the area affected;

(b) Provided to persons who are potentially affected by the water project, including, without limitation, adjacent landowners;

(c) Mailed by the division to each person included on a mailing list maintained by the division for the water project;

(d) Provided to appropriate federal agencies; and

(e) Submitted to the state clearinghouse for review by other federal and state agencies.

4. The notice must include:

(a) A description and location of the proposed water project;

(b) The place at which the draft environmental impact statement may be reviewed;

(c) The time allowed for public comment concerning the draft environmental impact statement; and

(d) The address to which written comments may be sent.

5. The division shall not consider comments that the division receives more than 30 days after it has provided the notice in the manner set forth in subsection 3.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67598 Environmental impact statement: Issuance of final determination of completion of environmental review; response to public comments. (NRS 445A.270, 445A.295)

1. If no significant comments are received by the division within the time prescribed in NAC 445A.67597, the division may issue its final determination that the process of environmental review is complete.

2. The division shall:

(a) Review all comments that it receives within the time prescribed in NAC 445A.67597;

(b) Respond to any of those comments which it deems significant; and

(c) Provide those responses to the applicant for incorporation into the final environmental impact statement.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67599 Environmental impact statement: Fee for copies of documents. (NRS 445A.270, 445A.295) The division:

1. Shall, upon the request of any person, provide that person with a copy of any version of the environmental impact statement or any supporting documents; and

2. May charge a reasonable fee, not to exceed the cost of reproduction, for each copy.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6761 Preparation of final environmental impact statement. (NRS 445A.270, 445A.295) An applicant shall prepare or have prepared a final environmental impact statement after the time for public comment and public workshops concludes and after

considering any comments received during the process for public participation. The final environmental impact statement must consist of:

1. The draft environmental impact statement;
2. Copies of all written comments and summaries of all oral comments received concerning the draft environmental impact statement;
3. The names and addresses of all persons who commented on the draft environmental impact statement;
4. Copies of any responses to comments provided by the division pursuant to NAC 445A.67598; and
5. Any other information deemed appropriate by the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67611 Completion of process of environmental review: Issuance of final determination regarding final environmental impact statement. (NRS 445A.270, 445A.295)

1. After an applicant submits a final environmental impact statement to the division, the division shall complete the process of environmental review by:
   (a) Reviewing the final environmental impact statement; and
   (b) Issuing a final determination that identifies any appropriate mitigation.
2. Before the division may recommend to the board for financing water projects that it approve an application, the applicant shall provide assurance that it will carry out any mitigation identified in the final determination. The division shall condition the loan contract upon compliance by the applicant with that mitigation.
3. A loan contract may be executed only after the division has issued the final determination and the board for financing water projects has approved the water project.
4. Any changes in design or environmental conditions that were not considered in the process of environmental review are subject to the provisions of NAC 445A.6758.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67612 Reevaluation of final determination by division; public notice; action taken upon receipt of comments. (NRS 445A.270, 445A.295)

1. If 5 years or more have passed since the division has issued its final determination regarding a final environmental impact statement and the division has not yet recommended approval to the board for financing water projects, the division shall reevaluate its determination taking into consideration current environmental conditions and public views.
2. If the division finds, as a result of its review pursuant to subsection 1, that no significant changes have occurred since the original final determination was made, the division shall, before recommending approval of the water project by the board for financing water projects, issue a notice of its intention not to change the original final determination. The division shall:
   (a) Publish the notice at least once in a newspaper of general circulation throughout the area affected;
   (b) Provide the notice to persons potentially affected by the water project, including adjacent landowners;
   (c) Mail the notice to each person included on the mailing list maintained by the division for the water project;
   (d) Provide the notice to appropriate federal agencies; and
   (e) Submit the notice to the state clearinghouse for review by other state and federal agencies.
3. The notice must include:
   (a) A description of the proposed water project, including its location;
   (b) Information regarding the availability of the original environmental impact statement;
   (c) The material upon which the division relied for the issuance of the notice and the address where that material may be reviewed;
   (d) The time allowed for public comments regarding the notice; and
   (e) The address where written comments may be sent.

4. The division shall not consider comments that the division receives more than 30 days after it has provided the notice in the manner set forth in subsection 2.

5. If no significant comments are received by the division within the time prescribed in subsection 4, the division may issue its final determination that the process of environmental review is complete.

6. If the division finds, as a result of its review pursuant to subsection 1 or its receipt of information pursuant to subsection 4, that additional information is necessary to supplement the original environmental information document, the process of environmental review for the water project must comply with the procedure set forth in NAC 445A.67594 to 445A.67612, inclusive.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

Filing, Review and Approval of Applications for Financial Assistance

NAC 445A.67613 Contents of application: Short-term loan; long-term loan. (NRS 445A.270)

1. An applicant may make a formal request for financial assistance from the account for the revolving fund by filing with the division an application at any time after the preapplication conference is held.

2. An application for a short-term loan submitted pursuant to NAC 445A.67562 must include, without limitation:

(a) The name, address and telephone number of the applicant or a legal representative of the applicant;

(b) A brief description of the proposed water project, including, without limitation, its effect on the public water system;

(c) A brief description of the need for water project planning, design and other related costs;

(d) The estimated costs for the request;

(e) Information necessary to understand the alternatives to be considered and their environmental impact;

(f) Information necessary for the division to determine how the loan is to be repaid; and

(g) Any other information deemed necessary by the division.

3. An application for a long-term loan submitted pursuant to NAC 445A.67564 must include, without limitation:

(a) The name, address and telephone number of the applicant or the legal representative of the applicant.

(b) A brief description of the proposed water project, including, without limitation, its anticipated effect on the public water system.

(c) The number of service connections and estimated population currently served by the applicant.

(d) An estimate of the number of service connections and future population to be served by the water project for the useful life of the water project.

(e) Maps of appropriate scale to show clearly the location of the proposed water project with respect to other identifiable topographical or geographical features in the service area of the public water system.

(f) A complete and legible legal description of the entire area of service for the water project improvement, including, without limitation, a map showing the layout of the water project with clear reference to aerial or other maps showing sections and townships.

(g) Proof of ownership, rights-of-way, easements or agreements showing that the applicant holds or is able to acquire all land, other than public land, or acquire interests therein and any water rights necessary for the construction of the proposed water project. Copies of deeds to land to be occupied, records of surveys, easements, agreements or permits to appropriate water granted pursuant to chapters 533 and 534 of NRS may be used as evidence of ownership.

(h) A description of how the water project complies with planning and zoning requirements.

(i) A copy of the current plan of water conservation adopted by the applicant pursuant to NRS 540.121 to 540.151, inclusive, or 704.662, 704.6622 and 704.6624, as applicable, and an analysis of the effectiveness of the plan.

(j) A description of the best available technology for the water project being proposed.

(k) An itemized estimate of the total cost of the water project that is prepared by a professional engineer.

(l) Plans of the water project sufficient to:

(1) Meet the requirements of NAC 445A.450 to 445A.6731, inclusive; and

(2) Evaluate the engineering feasibility of the water project.

(m) Information sufficient to demonstrate, through a systematic and cost-effective analysis of alternatives that are feasible, that the alternative selected is the most effective means of meeting the applicable water quality and public health requirements over the design life of the facility.

(n) A preliminary water project schedule that provides a timetable for:

(1) Advertising and opening bids;

(2) The start of the construction phase;

(3) The estimated schedule of progress payments to the contractor and other costs related to the drawdown of funds in the account for the revolving fund;

(4) Completion of the construction phase; and

(5) Initiation of the operation of the water project.

(o) A description of how the costs for capital construction, operation and maintenance and costs for debt service to support the loan will be recovered, including, without limitation:

(1) A proposed revenue program that demonstrates the cost effect on users of the public water system, including, without limitation, any connection fees or changes in user charges;

(2) Orders or resolutions specifying the method of loan repayment from the appropriate governing board, regulatory agency or local governing body having rate jurisdiction;

(3) Results of bond elections;

(4) Contractual loan agreements; or

(5) Any other information necessary for the division to understand how the applicant intends to repay the loan.

(p) Estimated costs of future expansion and long-term needs for reconstruction of facilities following their design life.

(q) A summary of public participation in the development of the proposed water project.

(r) Institutional and management arrangements required for successful implementation of the water project.

(s) A report on the status of the process of environmental review for the project.

(t) A list of any required permits and a schedule of when those permits will be obtained.

(u) The financial history of the applicant, including, without limitation, annual financial statements for the preceding 3 years.

(v) A list of previously approved loans to the applicant within the past 10 years, including, without limitation, the terms and conditions of payment and a statement of the remaining balances of any outstanding loans.

(w) At least three credit references.

(x) Copies of current capital improvement plans and debt management policies as provided to the department of taxation pursuant to chapter 350 of NRS and any applicable regulation.

(y) Security for the loan, if applicable.

(z) Evidence that the public water system has the capability to comply with the Safe Drinking Water Act and NAC 445A.450 to 445A.6731, inclusive.

4. To ensure a complete application, the applicant shall submit any other information deemed necessary by the division.

5. The information required pursuant to paragraph (m) of subsection 3 must include, without limitation:

(a) A description of how the alternatives listed will meet the water quality and public health needs, including, without limitation, an estimate of any future growth expected after the water project becomes operational;

(b) An estimate of how improving the operations, maintenance and efficiency of existing facilities will improve the performance of the public water system compared to how much the performance would be improved by constructing new facilities;

(c) A description of any opportunities the water project will provide to reduce the use of energy or to recover energy;

(d) An estimate of the total capital costs and the annual operation and maintenance costs; and

(e) An estimate of the annual or monthly costs to residential, commercial and industrial users during the 20 years after completion of the water project.

6. An applicant shall consider the present worth or equivalent annual value of all capital, operation and maintenance costs when satisfying the requirements of paragraph (m) of subsection 3.

7. The forecasts of population that an applicant provides pursuant to paragraph (m) of subsection 3 must be consistent with any forecasts of population that the state demographer has prepared.

8. As used in this section, "best available technology" means the technology, treatment technique or procedure that the EPA finds is the most appropriate and most cost-effective for solving a particular problem after examining the efficacy of the technology, technique or procedure under laboratory and field conditions.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67614 Initial evaluation of application. (NRS 445A.270)

1. Upon receipt of an application, the division shall evaluate:

(a) The application to determine whether the applicant submitted all the information required pursuant to NAC 445A.67613;

(b) The ability of the public water system to provide for:

(1) The continuing replacement of components of the public water system that are functionally obsolete or worn out;

(2) Current and anticipated debt service; and

(3) Current and future expenses of operation and maintenance;

(c) The capability of the public water system to remain in compliance with the Safe Drinking Water Act and NAC 445A.450 to 445A.6731, inclusive;

(d) Whether adequate collateral, if it was required, has been provided by the applicant to secure the loan;

(e) The sources that the applicant will draw on to repay the loan so that the division may determine whether the sources are of sufficient amount and certainty to repay fully the loan and provide for the upkeep of the public drinking water system; and

(f) Whether the water project is consistent with any comprehensive planning and zoning provisions applicable to the area, including, without limitation, management plans, development plans and county planning activities.

2. If the applicant is a utility subject to the jurisdiction of the public utilities commission of Nevada, an order by the public utilities commission of Nevada authorizing a surcharge pursuant to NAC 704.600 for the water project is sufficient to satisfy the requirements of this section.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67615 Certain permits required to complete application; waiver of requirements; submission of incomplete application. (NRS 445A.270)

1. An application is complete when the division determines that the applicant has supplied all the information required in this section and NAC 445A.67613.

2. Except as otherwise provided in subsections 3 and 4, an application is not complete until the division receives:

(a) A copy of any permit necessary for compliance with planning and zoning requirements, including, without limitation, any necessary variances or special use permits; or

(b) A copy of any permit that an agency has issued that is a necessary prerequisite for the proposed water project to proceed.

3. The division may waive the requirements of subsection 2 if it has received information from a reliable source that the proposed water project will receive or has received a permit required by any governmental agency.

4. The division may, before it receives any permit required pursuant to subsection 2 which requires the submission of a detailed engineering design, recommend approval of an application if there are no foreseeable conditions that may make the proposed water project unfeasible.

5. If an applicant submits an incomplete application, the division shall request that the applicant provide the required missing data or information. If the applicant does not provide the missing data or information, the division shall notify the applicant in writing and specify what data or information is missing from the application. The applicant must supply the missing data or information not later than 60 days after the date the division mails the written notice or the division shall reject the application. If the applicant is rejected, he may reapply pursuant to the requirements set forth in NAC 445A.6751 to 445A.67644, inclusive.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67616 Additional documentation to accompany application under certain circumstances. (NRS 445A.270) If a water project will serve two or more public water systems, the applicant shall submit with the application an executed copy of any interagency agreement, contract or other legally binding instrument that is necessary for the financing, construction and operation of the proposed water project. This instrument must set forth the basis upon which costs are allocated, the formula by which costs are allocated and the manner in which the system of allocating costs will be administered.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67617 Rejection of application. (NRS 445A.270) The division shall reject an application if the applicant fails to:

1. Submit a complete application pursuant to NAC 445A.67613 and 445A.67614;
2. Provide documentary evidence that the applicant has access to dedicated sources of revenue that are sufficient, in the judgment of the division, to ensure repayment of the loan;
3. Provide adequate collateral for the loan;
4. Demonstrate the legal, technical, managerial, institutional and financial capability to provide adequately for the operation, maintenance and replacement of the public water system during the term of the loan;
5. Demonstrate the technical, financial and managerial capability required for continuous compliance with the Safe Drinking Water Act and NAC 445A.450 to 445A.6731, inclusive; and
6. Carry out any mitigating measures that the division has required**.**

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67618 Written report. (NRS 445A.270) Upon determining that an application is complete, the division shall prepare a written report which includes:

1. An evaluation of the application;
2. The financial feasibility of the proposed water project;
3. The status of any funding available from the account for the revolving fund;
4. A review and analysis of the creditworthiness of the applicant;
5. An analysis of the level of risk for the loan;
6. An opinion regarding the technical, managerial and financial capability of the applicant;
7. An evaluation of the capability of the public water system to remain in compliance with the Safe Drinking Water Act, chapter 445A of NRS and this chapter; and
8. Any other information deemed necessary by the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67619 Final review of application; submission of written report and recommendation to board for financing water projects. (NRS 445A.270) The division shall:

1. Review the completed application and any records and other documents submitted by the applicant concerning the water project to evaluate whether:

(a) The proposed water project is feasible from an engineering and legal standpoint, is economically justified and is financially feasible;

(b) There is adequate assurance that the applicant can repay the loan;

(c) The applicant has taken sufficient and reasonable efforts to determine whether the proposed water project conflicts with any regional master plan of any local, state or federal governing authority, and those efforts have not revealed such a conflict; and

(d) If revenue bonds are to be issued, the applicant has executed a legally binding statement not to undertake to commit the state and any other political subdivision or municipality, other than the applicant, to incur any pecuniary liability in connection with the repayment of the bonds.

2. Submit the report required pursuant to NAC 445A.67618 to the board for financing water projects with a recommendation that the board:

(a) Approve the commitment of funds requested by the applicant;

(b) Approve the commitment of funds requested by the applicant with conditions; or

(c) Deny the commitment of funds requested by the applicant.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6762 Notification of action taken regarding recommendations; request for issuance of securities. (NRS 445A.270)

1. The division shall notify the applicant and the administrator in writing no later than 15 days after it receives notice of the action taken by the board for financing water projects regarding the recommendations submitted pursuant to subsection 2 of NAC 445A.67619. The notification must include a copy of the written order of the board.

2. The administrator shall, within 15 days after his receipt of the notification required by subsection 1, submit a written request to the state treasurer for the issuance of securities in an amount sufficient to provide to the account for the revolving fund the amount of funding required to be committed by the state for purposes of the loan. The administrator must include with his request a schedule regarding the time when that funding will be needed.

3. The administrator shall not enter into a loan contract with the applicant until the state treasurer has agreed to comply with the request submitted pursuant to subsection 2.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67621 Submission of final set of plans and specifications for water project; examination by division. (NRS 445A.270)

1. After receiving the notification required pursuant to NAC 445A.6762 and before advertising for bids, an applicant shall submit to the division a final set of plans and specifications for the water project.

2. The division shall examine the plans and specifications to determine whether:

(a) The design is consistent with the information submitted pursuant to paragraph (l) of subsection 3 of NAC 445A.67613;

(b) The water project will satisfy the requirements set forth in NAC 445A.453 and 445A.455; and

(c) The water project will comply with all applicable federal and state requirements.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67622 Loan contract: Conditions for offer. (NRS 445A.270)

1. The division shall not offer a loan contract to an applicant until:

(a) The board for financing water projects has issued its approval of the water project to the applicant;

(b) The division has examined and approved the final set of plans and specifications for the water project pursuant to NAC 445A.67621; and

(c) The applicant has submitted to the division a definite schedule for the water project which includes:

(1) A reasonable period to complete the water project after the commencement of bidding; and

(2) The times when funds are expected to be drawn from the account for the revolving fund.

2. Except as otherwise provided in subsection 3 of NAC 445A.6762, the division shall, after it receives notice of the action taken by the board for financing water projects regarding the recommendations submitted pursuant to subsection 2 of NAC 445A.6762, prepare and transmit a loan contract to the applicant.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67623 Loan contract: Conditions for execution; requirements. (NRS 445A.270)

1. The applicant and the administrator may execute a loan contract only after any conditions to the commitment of financial assistance have been met.

2. The loan contract must be:

(a) On a form provided by the division; and

(b) Executed by all parties before the commencement of construction of the water project.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

Requirements for Water Projects

NAC 445A.67624 Documentation required by division before commencing construction of water project; issuance of notice to proceed. (NRS 445A.270)

1. Before commencing the construction of a water project, a recipient shall submit to the division:

(a) Bidding schedules, estimated schedules of payment and any other information the division deems necessary to determine the progress of the water project;

(b) Proof of the receipt of all permits required to construct the water project;

(c) Documentation that any procedures for purchasing and contracting required by a state agency or the Federal Government will be followed;

(d) Agendas for any conferences regarding the water project held by the recipient before the commencement of bidding and construction;

(e) Schedules for the design of the project, engineering, the procurement of materials, construction and any other activity related to the water project; and

(f) Any other documents that the division deems necessary.

2. The recipient shall, at least 5 days before holding any conference described in paragraph (d) of subsection 1, notify the division of the date, time and location of the conference.

3. The recipient shall not commence the construction of the water project until receipt from the division of a notice to proceed with the water project. The division may issue such a notice only after the recipient has complied with the provisions of subsection 1 to the satisfaction of the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67625 Documentation and reports required by division during construction of water project. (NRS 445A.270) During the construction of a water project, a recipient shall provide to the division:

1. Such documentation as the division deems necessary to determine compliance with the loan contract; and

2. Monthly reports regarding the progress of the construction of the water project, each of which must:

(a) Include a current budget for the completion of the water project which accurately reflects:

(1) Any costs incurred up to the date of the report;

(2) The anticipated costs to complete the water project; and
(3) The status of available funding;
(b) Identify each major change to any schedule for the water project and describe each reason for that change; and
(c) Be accompanied by copies of any change orders affecting the scope or cost of any components of the water project.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67626 Documentation required by division relating to disbursement of money for water project. (NRS 445A.270)
1. A recipient:
(a) May submit to the division periodic requests for the disbursement of money pursuant to the loan. Each request must be on a form provided by the division.
(b) Shall submit to the division copies of all contracts related to the water project, including contracts for construction, procurement and the provision of professional services. Any invoice submitted by the recipient for the payment of reimbursable costs must include references to the authorizing contracts and, if such a contract is divided into separate tasks, references to those tasks.
(c) Shall submit to the division proof that any prior disbursements of money pursuant to the loan have been distributed by the recipient in an appropriate manner. The proof must consist of copies of the front and back of canceled checks issued by the recipient for the payment of reimbursable costs.
2. The disbursement of any money to a recipient must comply with the loan contract.
3. The approval of each payment must be based on the actual reimbursable costs incurred to date.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67627 Documentation required by division upon completion of water project; availability of unused amount of loan. (NRS 445A.270)
1. After a recipient has completed a water project, the recipient shall submit to the division for its approval:
(a) A final engineering report that describes the water project as it was constructed;
(b) Drawings of the water project as it was built which depict any material changes from the initial plans for the water project;
(c) The dates the water project was tested, accepted and placed into service;
(d) A notice of completion of the water project; and
(e) A statement of the final costs for the water project.
2. The recipient may submit its final request for disbursement of the loan only after the division has approved the final engineering report submitted pursuant to subsection 1.
3. Upon completion of the requirements of subsection 1 and payment of the final request submitted pursuant to subsection 2, any amount of the sum authorized for the loan that is not disbursed will be made available to other applicants who have requested financial assistance from the account for the revolving fund.
(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67628 Adoption of accounting standards by reference; maintenance of separate accounts for water projects. (NRS 445A.270)
1. The accounting standards contained in *Governmental Auditing Standards*, *1994 Revision* published by the General Accounting Office are hereby adopted by reference. A copy of this publication is available at a cost of $5 from the Superintendent of Documents, United States Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954 (telephone: (202) 512-1800) or is available for review at the U.S. Government Depository, Nevada State Library, Carson City, Nevada.

2. A recipient shall maintain separate accounts for water projects in accordance with generally accepted governmental accounting standards, including those adopted by reference in subsection 1.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67629 Maintenance of records and accounts. (NRS 445A.270)

1. A recipient shall:

(a) Establish an official file for the water project, which must contain an adequate record of all significant actions relating to the water project;

(b) Establish accounts that accurately and adequately show all amounts of money:

(1) Received as financial assistance from the account for the revolving fund;

(2) Received and spent on the water project; and

(3) Received as income from the water project;

(c) Establish a system of accounting, which ensures that the total costs of the water project, including all direct and indirect costs, are recorded accurately;

(d) Establish and maintain such other accounts and records as are required by the division to comply with requirements for reporting established by the Federal Government; and

(e) Retain all records relating to the water project for at least 3 years after final repayment of financial assistance has been made or for any longer period required by the division.

2. Any records of a recipient relating to a water project must be made available at any reasonable time for inspection or copying by any authorized representative of the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6763 Audit of financial records relating to water project. (NRS 445A.270)

1. Whenever an audit is required by federal law or by an agency of the Federal Government, or whenever the division determines that an audit is necessary to ensure the integrity of the account for the revolving fund, the division may require that an audit be performed of financial records relating to a water project.

2. Any audit required pursuant to this section must be performed at the expense of the recipient by a certified public accountant who is independent of the recipient.

3. A report of the audit must be prepared by the auditor required pursuant to subsection 2 in the form prescribed by the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67631 Use of value engineering; submission for peer review. (NRS 445A.270)

1. The recipient shall conduct value engineering if the total estimated cost of constructing the water project is more than $10,000,000. Any recommendations derived from the value engineering must be carried out to the extent feasible.

2. If the division determines that a water project is especially complex, the division shall require the recipient to submit the project for peer review.

3. As used in this section:

(a) "Peer review" means a cursory review of the work of the design engineer for a water project, conducted by a person with equal competence and expertise in that discipline who is retained by the recipient specifically to provide suggestions or comments which may enhance the performance of the water project or aid in the operation and maintenance of the water project; and

(b) "Value engineering" means a specialized technique for controlling costs which uses a systematic and creative approach to identify and focus on any unnecessary cost to reduce the cost of a water project without affecting the reliability or efficiency of the water project.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67632 System of user charges. (NRS 445A.270) Any system of user charges imposed by a recipient must:

1. Be designed to produce the money required for the costs of operation, maintenance and replacement of the water project and public water system;

2. Provide that each user or class of users shall pay its proportionate share of the costs of operation, maintenance and replacement of the water project and public water system;

3. Provide that each user will be notified at least annually, in conjunction with a regular bill or other means acceptable to the division, of the portion of the bill attributable to:

(a) The costs of operation, maintenance and replacement of the water project and public water system; and

(b) The retirement of the debts of the water project and public water system; and

4. Include an adequate system of financial management that will account accurately for revenues generated by the system and expenditures for operation, maintenance and replacement based on an adequate budget identifying the basis for determining the annual cost of operation and maintenance, including, without limitation, the cost of personnel, equipment, services, supplies, energy and administration, and replacement of facilities that have exceeded their useful life.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67633 Use of rate structures for repayment of loan. (NRS 445A.270)

1. If it becomes necessary for a recipient to impose a separate rate structure to repay a loan for a water project, the recipient may impose its system of user charges before the board for financing water projects takes action on a water project for which the division has submitted a recommendation pursuant to NAC 445A.67619.

2. If a recipient uses an existing rate structure for a public water system to repay a loan, the recipient shall provide the appropriate documentation to verify that the use of the existing rate structure will generate enough income to enable the recipient to repay the loan.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67634 Construction contracts for public water system that is publicly owned: Compliance with certain requirements related to advertising for bids, and awarding and administration of contracts. (NRS 445A.270) If a public water system is publicly owned:

1. The recipient must comply with any applicable provisions of chapter 338 of NRS and chapter 338 of NAC regarding the award and administration of contracts for water projects.

2. The recipient shall ensure compliance with all legal requirements for advertising for bids and awarding construction contracts.

3. The division shall review the awards to ensure that the recipient and its consultants and contractors have complied with any applicable federal and state laws.

4. The recipient is solely responsible for the resolution of any disputes relating to bidding. The division shall not participate in the resolution of such a dispute.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67635 Compliance with federal and state law regarding labor and wages. (NRS 445A.270) A recipient shall comply with the provisions of the Davis-Bacon Act, 40 U.S.C. §§ 276a et seq., if they apply, the applicable provisions of chapter 338 of NRS and all other applicable state and federal labor laws.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67636 Participation by disadvantaged businesses: Generally. (NRS 445A.270)

1. A recipient shall comply with the requirements of federal law concerning the participation of disadvantaged businesses.

2. Each recipient shall attempt to comply with the fair share percentages established annually for disadvantaged businesses by the division and the EPA. A recipient not meeting

these goals shall submit evidence of compliance with the affirmative steps identified in NAC 445A.67637.

3. A recipient shall submit with his request for approval to award a construction contract, a report of participation by disadvantaged businesses in the form prescribed by the division. If the low bidder on any construction contract does not meet the fair share requirements for disadvantaged businesses, the recipient shall submit to the division evidence of compliance by the bidder with the affirmative steps identified in NAC 445A.67637.

4. A recipient shall submit to the division, in the form prescribed by the division, a report of participation by disadvantaged businesses following any quarter during which a procurement of $10,000 or more is executed for the water project. As used in this subsection, "quarter" means a quarter in the federal fiscal year.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67637 Participation by disadvantaged businesses: Awarding of subcontracts. (NRS 445A.270) A recipient shall ensure that, if his contractor for a water project awards any subcontracts relating to the water project, the contractor takes affirmative steps to ensure that disadvantaged businesses are used to the extent possible as sources of supplies, equipment, construction and services. These affirmative steps must include:

1. Including such businesses on solicitation lists;
2. Ensuring that such businesses are solicited if they are potential sources;
3. Dividing total requirements, if economically feasible, into small tasks or quantities to permit maximum participation by disadvantaged businesses; and
4. Using the services of the Nevada commission on economic development and the business advocacy office to locate disadvantaged businesses capable of performing the work to be subcontracted.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67638 Notification of division: Award of prime construction contract; steps in construction; beginning of operation of project. (NRS 445A.270)

1. A recipient shall notify the division in writing within 5 working days after the award of the prime construction contract for the water project.
2. A recipient shall notify the division promptly in writing of:

(a) The beginning of construction of the water project;
(b) Any substantial change in the scope of the water project and each executed change order;
(c) The date on which construction of the water project is anticipated to be completed;
(d) The cessation of all major construction work on the water project where the cessation of work is expected to or does continue for 30 days or more;
(e) Any circumstance or condition that is expected to or does delay the completion of construction for 90 days or more after the anticipated date of completion of construction of the water project;
(f) The completion of construction of the water project; and
(g) The beginning of the operation of the water project.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67639 Oversight inspections. (NRS 445A.270) The division may conduct oversight inspections during the construction of a water project. The primary purpose of any such inspection must be to ascertain that the recipient is constructing the water project according to the approved plans and specifications and applicable contract requirements. The first inspection must normally be conducted before the water project is 10 percent complete. Subsequent inspections must be conducted as they are deemed necessary by the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.6764 Submission and approval of manual of operations and maintenance for water project. (NRS 445A.270) Before a water project is 90 percent completed, a

recipient shall submit to the division a draft of the manual of operations and maintenance for the water project required pursuant to NAC 445A.6667. Not more than 90 percent of the total financial assistance for the water project may be provided until the manual has been reviewed and approved by the division.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67641 Submission of set of as-built drawings of water project. (NRS 445A.270) No later than 90 days after the completion of a water project, the recipient shall supply the division with one set of drawings of the water project as it was built.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67642 Final inspection and certification of performance of water project; corrective action. (NRS 445A.270)

1. After completion of the water project and before a recipient submits certification of a water project required pursuant to subsection 2, the recipient shall coordinate with the division a final inspection of the water project to ensure that the facilities of the water project are operating and capable of satisfying the applicable requirements for public health and water quality.

2. Within a specified period agreed upon by the division after the completion of a water project, the recipient shall certify to the division that the water project meets all applicable performance standards. At the request of a recipient, the division may assist the recipient in developing applicable performance standards.

3. If the recipient is not able to provide the certification required pursuant to subsection 2 because the water project does not meet applicable performance standards:

(a) The recipient shall prepare a report of corrective action that provides:

(1) An analysis of the cause of the failure of the water project to meet performance standards; and

(2) An estimate of the nature, scope and cost of necessary corrective action.

(b) The division shall conduct follow-up inspections as necessary to determine whether the water project meets performance standards.

4. If the cost of corrective action exceeds the amount of money loaned to the recipient, the recipient shall only receive additional money to pay for the increased costs if the recipient applies to, and is approved by, the board for financing water projects for the additional money.

5. One year after the date specified in the notice of completion of the water project, the recipient shall report to the division concerning whether the water project:

(a) Meets applicable performance standards; and

(b) Complies with all applicable design specifications and requirements for public health and water quality.

6. As used in this section, "performance standards" means the criteria used to evaluate the compliance of a water project with:

(a) The requirements contained in design specifications; and

(b) The applicable requirements of chapter 445A of NRS and this chapter.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67643 Notification of claims arising from or related to water project; resolution of claims. (NRS 445A.270) A recipient:

1. Shall notify the division of any claims against the owner, the professional engineer, the contractor or any subcontractor arising from or related to the water project; and

2. Is responsible for the resolution of those claims.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

NAC 445A.67644 Approval required to abandon, discontinue use of or dispose of water project. (NRS 445A.270)

1. A recipient shall not abandon, substantially discontinue the use of or dispose of a water project during its useful life without the prior written approval of the division.

2. As used in this section, "useful life" means the period during which a water project provides a service without becoming obsolete or inoperable.

(Added to NAC by Bd. of Health by R067-98, eff. 7-23-98)

FINANCIAL ASSISTANCE FOR CONSTRUCTION OF WASTEWATER TREATMENT WORKS AND POLLUTION CONTROL PROJECTS

General Provisions

NAC 445A.685 Definitions. As used in NAC 445A.685 to 445A.805, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.686 to 445A.727, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4205)

NAC 445A.686 "Act" defined. "Act" means the Clean Water Act, 33 U.S.C. §§ 1251 et seq., as amended.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42051)

NAC 445A.687 "Alternative" defined. "Alternative," as used to describe a method of treating wastewater, means any proven process or technique for the treatment of wastewater which provides for the reclamation and reuse of water, recovers energy, productively recycles the constituents of wastewater or otherwise eliminates the discharge of pollutants. The term includes:

1. Land application of effluent and sludge.
2. Recharge of aquifers.
3. Aquaculture.
4. Direct reuse.
5. Horticulture.
6. Revegetation of disturbed land.
7. Containment ponds.
8. The composting and drying of sludge before land application.
9. Self-sustaining incineration.
10. Recovery of methane.
11. Individual and on-site systems.
12. Small-diameter pressure and vacuum sewers or small-diameter gravity sewers carrying partially or fully treated wastewater.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42052)

NAC 445A.688 "Best practicable waste treatment technology" defined.

1. "Best practicable waste treatment technology" means the cost-effective technology that can treat wastewater, combined sewer overflows and nonexcessive infiltration and inflow, to meet the enforceable requirements of the Act, the requirements of a discharge permit issued by the division or to protect the public health.

2. As used in this section:

(a) "Nonexcessive infiltration" means the quantity of infiltration that cannot be economically and effectively eliminated from a sewer system, as determined by a cost-effect analysis.

(b) "Nonexcessive inflow" means a rate of inflow that does not cause chronic operational problems, such as surcharging, backups, bypasses or overflows, related to hydraulic overloading of treatment works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42053)

NAC 445A.689 "Building" defined. "Building" means the erection, acquisition, alteration, remodeling, improvement or extension of any treatment works or project for the control of pollution.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42054)

NAC 445A.690 "Categorical exclusion" defined. "Categorical exclusion" means an exemption from any provisions of NAC 445A.685 to 445A.805, inclusive, that would otherwise apply, granted to a category of actions that do not individually or cumulatively have a significant effect on the human environment and for which no environmental assessment or environmental impact statement is required.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42055)

NAC 445A.691 "Combined sewer" defined. "Combined sewer" means a sewer that is designed as a sanitary sewer and a storm sewer.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42056)

NAC 445A.692 "Completion" defined. "Completion," as applied to a project, means the time when all the requirements of the construction contract have been satisfied and final payment, including retention, has been made.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42057)

NAC 445A.693 "Construction" defined. "Construction" means any erection, building, alteration, remodeling, improvement or extension of treatment works or any combination of these activities.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42058)

NAC 445A.694 "Conventional" defined. "Conventional," as used to describe a method of treating wastewater, means a process or technique for the treatment of wastewater at a centralized treatment plant by means of a biological, physical or chemical unit process followed by direct point source discharge to surface waters.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42059)

NAC 445A.695 "Department" defined. "Department" means the state department of conservation and natural resources.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4206)

NAC 445A.696 "Director" defined. "Director" means the director of the department.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42061)

NAC 445A.697 "Disadvantaged business" defined. "Disadvantaged business" means a business owned or controlled by women or members of a racial or ethnic minority group.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42062)

NAC 445A.698 "Division" defined. "Division" means the division of environmental protection of the department.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42063)

NAC 445A.699 "Enforceable requirements of the Act" defined.

1. Except as otherwise provided in this section, "enforceable requirements of the Act" means any condition or limitation of a permit issued pursuant to 33 U.S.C. § 1342 or 33 U.S.C. § 1344, the violation of which may result in the issuance of an order for compliance or the commencement of a civil or criminal action pursuant to 33 U.S.C. § 1319 or any other applicable law.
2. If no permit of the kind described in subsection 1 has been issued, the term means any requirement which, in the judgment of the division, is to be included in the permit when it is issued.
3. If there is no requirement for a permit, the term means any requirement that the division determines is necessary for the best practicable waste treatment technology to meet applicable criteria.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42064)

NAC 445A.700 "Environmental assessment" defined. "Environmental assessment" means a concise document that:

1. Provides sufficient evidence and analysis to determine whether an environmental impact statement or a finding of no significant impact is appropriate;
2. Aids compliance by an agency with the Act if no environmental impact statement is necessary; and
3. Facilitates preparation of an environmental impact statement if one is necessary.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42065)

NAC 445A.701 "Environmental impact statement" defined. "Environmental impact statement" means the statement required by NAC 445A.754.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42066)

NAC 445A.702 "Excessive infiltration or inflow" defined. "Excessive infiltration or inflow" means the quantity of infiltration or inflow that can be economically eliminated from a sewer system, as determined by a cost-effect analysis comparing the cost of correcting the conditions causing the infiltration or inflow to the total cost of transporting and treating the infiltration or inflow.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42067)

NAC 445A.703 "Facility plan" defined. "Facility plan" means any necessary plan or study that:

1. Investigates the need for any proposed facility; and

2. Relates directly to treatment works needed to comply with enforceable requirements of the Act or to any other project eligible to receive financial assistance from the fund.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42068)

NAC 445A.704 "Finding of no significant impact" defined. "Finding of no significant impact" means a document that presents briefly the reasons why an action, not otherwise excluded, will not have a significant effect on the human environment and for which an environmental impact statement will therefore not be prepared. The term includes an environmental assessment and any summary of such an assessment.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42069)

NAC 445A.705 "Fund" defined. "Fund" means the revolving fund created pursuant to the Act to provide loans and other forms of financial assistance for the construction of wastewater treatment works or pollution control projects.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4207)

NAC 445A.706 "Infiltration" defined. "Infiltration" means the entry of water, other than wastewater, into a sewer system, including sewer service connections, from the ground through such means as defective pipes, pipe joints, connections or manholes.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42071)

NAC 445A.707 "Inflow" defined. "Inflow" means the entry of water, other than wastewater, into a sewer system, including sewer service connections, from sources such as roof leaders, cellar drains, springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters or drainage.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42072)

NAC 445A.708 "Innovative" defined. "Innovative," as used to describe a method of treating wastewater, means a process or technique for the treatment of wastewater that is developed but which has not been fully proven under the circumstances of its contemplated use and which represents a significant advance over the state of the art in terms of significant reduction in life cycle cost or significant environmental benefits through:

1. The reclaiming and reuse of water or the elimination of the discharge of pollutants by other means;
2. The use of techniques for recycling, such as land treatment;
3. The more efficient use of energy and resources;
4. The use of new or improved methods of managing the treatment of waste for combined municipal and industrial systems; or
5. The confined disposal for pollutants to prevent water or other environmental pollution.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42073)

NAC 445A.709 "Interceptor sewer" defined.

1. "Interceptor sewer" means a sewer designed to intercept wastewater from a final point in a collector sewer and to convey the wastewater directly to a treatment facility or another interceptor.

2. As used in this section, "collector sewer" means a sanitary sewer, within a publicly owned treatment system, that:

(a) Is located in the public right-of-way; and

(b) Collects wastewater discharged through building sewers and conducts it into larger interceptor sewers or to pumping or treatment works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42074)

NAC 445A.710 "Maintenance" defined. "Maintenance" means the preservation of the functional integrity and efficiency of the equipment and structures of treatment works. The term includes preventive maintenance, corrective maintenance and replacement of such equipment.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42075)

NAC 445A.711 "Mitigation" defined. "Mitigation" includes:

1. Avoiding an environmental impact by not taking a certain action or parts of an action.
2. Minimizing an environmental impact by limiting the degree or magnitude of the action and its implementation.
3. Rectifying an environmental impact by repairing, rehabilitating or restoring the part of the environment affected.
4. Reducing or eliminating an environmental impact over time by preservation and maintenance during the life of the action.
5. Compensating for an environmental impact by replacing or providing substitute resources or environments.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42076)

NAC 445A.712 "Municipality" defined. "Municipality" means:

1. Any city, town, county, district, association or other public body created by or pursuant to the law of this state and having authority over the disposal of sewage, industrial wastes or other wastes; or
2. Any Indian tribe or authorized Indian tribal organization.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42077)

NAC 445A.713 "Nonpoint source" defined. "Nonpoint source" means a source of water-borne sediments, nutrients or organic and toxic substances originating from activities involving the use of land, such as agriculture, mining, forestry, urban development or construction. The term does not include a discharge at a specific, single location such as a pipe.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42078)

NAC 445A.714 "Operation" defined. "Operation" means control of the unit processes and equipment which comprise treatment works. The term includes financial management, the management of personnel and records, laboratory control, process control, safety and planning for emergency operations.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42079)

NAC 445A.715 "Operation and maintenance" defined. "Operation and maintenance" means those activities required to ensure the dependable and economical functioning of treatment works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4208)

NAC 445A.716 "Person" defined.

1. "Person" means the United States, to the extent authorized by federal law, any interstate agency, the state or any agency or institution thereof, or any municipality or other political subdivision of the state.

2. As used in this section, "interstate agency" means an agency of two or more states:

(a) Established by or pursuant to an agreement or compact approved by the Congress of the United States; or

(b) Having substantial powers or duties pertaining to the control of water pollution.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42081)

NAC 445A.717 "Pollution" defined. "Pollution" means the man-made or man-induced alteration of the chemical, physical, biological and radiological integrity of water.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42082)

NAC 445A.718 "Pollution control project" defined. "Pollution control project" means any eligible component of a program for management established pursuant to 33 U.S.C. § 1329.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42083)

NAC 445A.719 "Priority list" defined. "Priority list" means the ordered listing, prepared annually, of projects for which the department expects to provide financial assistance from the fund.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42084)

NAC 445A.720 "Project" defined. "Project" means the activities or tasks identified in an agreement for financial assistance for which the recipient may expend, obligate or commit money.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42085)

NAC 445A.721 "Recipient" defined. "Recipient" means an entity that receives financial assistance from the fund.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42086)

NAC 445A.722 "Replacement" defined. "Replacement" means obtaining and installing equipment, accessories or appurtenances necessary during the life of treatment works to maintain the capacity and performance for which the works have been designed and constructed. The term does not include major rehabilitation, repair or replacement of any capital or fixed assets of treatment works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42087)

NAC 445A.723 "Sanitary sewer" defined. "Sanitary sewer" means a conduit intended to carry liquid- and water-carried wastes from a residence, commercial building, industrial plant or institution together with small quantities of ground, storm or surface waters that are not admitted intentionally.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42088)

NAC 445A.724 "Storm sewer" defined. "Storm sewer" means a sewer designed to carry only storm waters, surface runoff, street wash waters or drainage.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42089)

NAC 445A.725 "Treatment works" defined. "Treatment works" means:

1. Any device or system used in the storage, treatment, recycling or reclamation of municipal sewage or industrial wastes of a liquid nature, including any interceptor sewer, outfall sewer, sewage collection system, pumping, power or other equipment, and the appurtenances of any of these.
2. Any extension, improvement, remodeling, addition or alteration of any device or system described in subsection 1.
3. Any unit essential to provide a reliable recycled supply, such as a stand-by treatment unit or clear well facility.
4. Any works, including any land that is an integral part of the treatment process or that is used for ultimate disposal of residues resulting from the treatment.
5. Any other method or system for preventing, abating, reducing, storing, treating, separating or disposing of municipal waste, including storm water runoff, industrial waste or waste in combined storm water and sanitary sewer systems.
6. Any pollution control project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4209)

NAC 445A.726 "User charge" defined. "User charge" means a charge levied in accordance with 33 U.S.C. § 1284(b) on the users of a treatment works, or that portion of the ad valorem taxes paid by a user for his proportionate share of the cost of operation and maintenance, including replacement, of the works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42091)

NAC 445A.727 "Wastewater" defined. "Wastewater" means a combination of the liquid- and water-carried wastes from a residence, commercial building, industrial plant or institution and any ground water, surface water or storm water that is present. The term includes any pollution having a source that cannot be identified and which may best be controlled by the implementation of a program for management established pursuant to 33 U.S.C. § 1329.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42092)

NAC 445A.728 Purpose and use of revolving fund created pursuant to Clean Water Act.

1. The primary purpose of the fund is to provide financial assistance as described in this section, other than grants, to municipalities for the construction of publicly owned wastewater treatment works and for the implementation of programs for the management of nonpoint sources of water pollution.
2. The fund may be used to:

(a) Provide a loan at or below the market rate of interest;

(b) Guarantee a municipal obligation or purchase insurance for such an obligation if required to improve access to credit or reduce the rate of interest paid by the municipality; or

(c) Refinance a municipal obligation for an eligible wastewater facility at or below market rates if the debt is incurred and construction begins after March 7, 1985. A municipality that requests refinancing must comply with all the requirements of NAC 445A.685 to 445A.805, inclusive.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42093)

NAC 445A.729 Effect of review or approval of documents by or for division. Review or approval of facility plans, design drawings and specifications or other documents by or for the division is for administrative purposes only and does not relieve the applicant of the responsibility properly to plan, design, build and effectively operate and maintain the treatment works described in the agreement for financial assistance as required under law, regulations, permits, and good management practices. The division is not responsible for increased costs resulting from defects in the design, plans and specifications or other pertinent documents.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42094)

NAC 445A.730 Resolution of disputes concerning administration of provisions. Any dispute concerning the administration of the provisions of NAC 445A.685 to 445A.805, inclusive, that is not otherwise resolved must be referred to the administrator for decision. The decision of the administrator is subject to review by the director. As used in this section, administrator means the administrator of the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42095)

Preliminary Planning of Projects

NAC 445A.733 Proposed wastewater treatment works: Contents of facility plan. A facility plan for a proposed wastewater treatment works must include:

1. A description of the proposed treatment works and the complete waste treatment system of which it is a part.
2. A description of the best practicable wastewater treatment technology.
3. A cost-effect analysis of the feasible conventional, innovative and alternative wastewater treatment works, processes and techniques capable of meeting the applicable effluent, water quality and public health requirements over the design life of the facility while recognizing environmental and other nonmonetary considerations.
4. A demonstration of the nonexistence or possible existence of excessive infiltration or inflow in the sewer system.
5. An analysis of any potential open-space and recreation opportunities associated with the project.
6. An environmental information document that includes an adequate evaluation of the environmental impacts of alternatives. This evaluation must discuss all significant environmental effects of the proposed project and the implications of the project with respect to:

(a) Threatened or endangered species;
(b) Wetlands;
(c) Farmland;
(d) Fish and wildlife;
(e) Cultural resources;
(f) Open spaces;
(g) Environmentally sensitive areas;
(h) Air quality;
(i) Water quality;
(j) Consistency with land use plans;
(k) Energy use;
(l) Long-term versus short-term trade-offs;
(m) Growth inducement;
(n) Floodplains; and
(o) Consistency with areawide planning, such as basin plans and plans prepared pursuant to section 208 of the Act, 33 U.S.C. § 1288.

7. An evaluation of the implications of the project for the public or private water supply.
8. For the selected alternative, a concise description at an appropriate level of detail of:

(a) Relevant design parameters.
(b) Cost effects on users of the wastewater system.
(c) Institutional and management arrangements required for successful implementation of the project.
(d) Estimated costs for capital construction, operating and maintenance costs and costs for debt service and a description of the manner in which local costs are to be financed, including a preliminary revenue program in the form prescribed by the division.
(e) Estimated costs of future expansion and long-term needs for reconstruction of facilities following their design life.
9. A summary of public participation in the development of the facility plan.
(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.421)

NAC 445A.734 Proposed wastewater treatment works: Cost-effect analysis.
1. A cost-effect analysis prepared pursuant to NAC 445A.733 must include:
(a) A description of the relationship between the capacity of alternatives and the needs to be served, including capacity or future growth expected after the treatment works become operational. The description must include estimates from significant industrial and commercial users documenting the need for capacity and the characteristics of existing or projected flows.
(b) An evaluation of improved effluent quality attainable by upgrading the operation and maintenance and efficiency of existing facilities as an alternative or supplement to the construction of new facilities.
(c) An evaluation of the alternative methods for the reuse or ultimate disposal of treated wastewater and sludge resulting from the treatment process.
(d) An evaluation of systems with revenue-generating applications.
(e) An evaluation of opportunities to reduce the use of energy or to recover energy.
(f) Information concerning total capital costs and annual operation and maintenance costs, as well as estimated annual or monthly costs to residential, commercial and industrial users.
2. The planning period used in the analysis must be 20 years.
3. The monetary costs to be considered in the analysis must include the present worth or equivalent annual value of all capital costs and operation and maintenance costs.
4. The forecasts of population contained in the analysis must be consistent with those prepared by the department of taxation.
5. As used in this section, "industrial user" means any nongovernmental, nonresidential user of a publicly owned treatment works who is identified in the *Standard Industrial Classification Manual*, 1972 edition, of the Office of Management and Budget under one of the following divisions:
(a) Division B - Mining.
(b) Division D - Manufacturing.
A copy of the Manual may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402-9325, for the price of $24.
(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42101)

NAC 445A.735 Proposed pollution control projects: Contents of facility plan. A facility plan for a proposed pollution control project must include:
1. A description of the nonpoint sources of pollution and the areas and waters affected by them.
2. A description of the best management practices considered.
3. A cost-effect analysis of the feasible conventional, innovative and alternative management practices, processes and techniques capable of meeting the applicable effluent, water quality and public health requirements over the design life of the project while recognizing environmental and other nonmonetary considerations.

4. An environmental information document that includes an adequate evaluation of the environmental impacts of alternatives. This evaluation must discuss all significant environmental effects of the proposed project and the implications of the project with respect to:

(a) Threatened or endangered species;

(b) Wetlands;

(c) Farmland;

(d) Fish and wildlife;

(e) Cultural resources;

(f) Open spaces;

(g) Environmentally sensitive areas;

(h) Air quality;

(i) Water quality;

(j) Consistency with land use plans;

(k) Energy use;

(l) Long-term versus short-term trade-offs;

(m) Floodplains; and

(n) Consistency with areawide planning, such as basin plans and plans prepared pursuant to section 208 of the Act, 33 U.S.C. § 1288, and the nonpoint source management program.

5. For the selected alternative, a concise description at an appropriate level of detail of:

(a) Relevant design parameters.

(b) Cost effects on users of the wastewater system.

(c) Institutional and management arrangements required for successful implementation of the project.

(d) Estimated costs for capital construction, operating and maintenance costs and costs for debt service costs and a description of the manner in which local costs are to be financed, including a preliminary revenue program in the form prescribed by the division.

(e) Estimated costs of future expansion and long-term needs for reconstruction of facilities following their design life.

6. A summary of public participation in the development of the facility plan.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42102)

NAC 445A.736 Proposed pollution control projects: Cost-effect analysis.

1. A cost-effect analysis prepared pursuant to NAC 445A.734 must include:

(a) A description of the relationship between the capacity of alternatives and the needs to be served, including capacity or future growth expected after the project becomes operational.

(b) An evaluation of the alternative methods for the reuse or ultimate disposal of treated wastewater and sludge resulting from the treatment process.

(c) Information concerning total capital costs and annual operation and maintenance costs.

2. The planning period used in the analysis must be 20 years.

3. The monetary costs to be considered in the analysis must include the present worth or equivalent annual value of all capital costs and operation and maintenance costs.

4. The forecasts of population contained in the analysis must be consistent with those prepared by the department of taxation.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42103)

NAC 445A.737 Requirements for facility plan. A facility plan for a proposed wastewater treatment works or pollution control project must demonstrate, through a systematic evaluation of alternatives that are feasible in light of the unique demographic, topographic, hydrologic and institutional characteristics of the area, that the alternative selected is the most

economical means of meeting the applicable effluent, water quality and public health requirements over the design life of the facility.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42104)

NAC 445A.738 Public hearing before adoption of facility plan.

1. Before adopting a facility plan, an applicant for financial assistance must hold a public hearing to describe the proposed project and ensure that the concerns of the public are fully considered.
2. The time, place and subject of the public hearing must be announced conspicuously and adequately by the applicant not less than 30 days before the hearing. Copies of the facility plan must be made available for inspection by the public not less than 15 days before the hearing.
3. Notice of the hearing must be circulated within the geographical area covered by the facility plan by publication in a newspaper of general circulation in the area.
4. Notice of the hearing must be mailed by the applicant to any person or organization included on a mailing list provided by the division.
5. Ten copies of the facility plan must be submitted by the applicant to the state clearinghouse for review.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42105)

NAC 445A.739 Submission of facility plan to division. Each facility plan must be submitted to the division for approval.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42106)

Environmental Review of Proposed Projects

NAC 445A.742 Steps in process of environmental review. The process of environmental review of a proposed project includes the following steps:

1. An applicant for financial assistance shall consult with the division during the formulation of the project or the preparation of the facility plan to:

(a) Determine whether the project is eligible for a categorical exclusion from any applicable provisions of NAC 445A.685 to 445A.805, inclusive;

(b) Determine alternatives to the project which must be evaluated;

(c) Identify potential environmental issues; and

(d) Determine the potential need for partitioning the environmental review process or the need for an environmental impact statement.

2. The division shall determine if the project is eligible for a categorical exclusion. If the project is determined to be ineligible for such an exclusion, the applicant shall prepare an environmental information document for the project. The document must be included in the facility plan.
3. The division shall prepare an environmental assessment and subsequently prepare and issue a finding of no significant impact or a notice of intent to prepare an environmental impact statement and record of decision.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4211)

NAC 445A.743 Duties of division.

1. The division shall initiate the process of environmental review at the earliest practicable date to identify environmental impacts, avoid delays and resolve conflicts. This process must be integrated with the preparation of the facility plan.

2. A review of environmental information developed by the applicant must be conducted by the division whenever meetings are held to assess progress in the development of the facility plan. These meetings must be held before a preferred alternative is selected.

3. A decision whether to prepare an environmental impact statement must be made as early as practicable during the preparation of the facility plan. The division shall inform interested parties of:

(a) The preliminary nature of the division's position on preparing an environmental impact statement;

(b) The relationship between the preparation of the facility plan and the process of environmental review;

(c) The extent of the public participation program; and

(d) The name of a person who may be contacted for further information.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42111)

NAC 445A.744 Categorical exclusion: Determination by division; criteria for granting; request for exclusion of additional categories.

1. The division shall determine whether an action is eligible for exclusion from review pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 et seq.

2. The division may grant a categorical exclusion to:

(a) Any action for which the facility plan is directed to the rehabilitation of existing facilities, replacement of equipment or the construction of a new ancillary facility adjacent or appurtenant to an existing facility and not affecting the degree of treatment or capacity of that facility. These actions include, without limitation:

(1) Infiltration and inflow corrections;

(2) Replacement of existing mechanical equipment or structures; and

(3) Construction of small structures on existing sites.

(b) Any action in a sewered community which is for minor upgrading or minor expansion of existing treatment works.

(c) Any action in an unsewered community where on-site technologies are proposed.

3. The division shall refuse a categorical exclusion if:

(a) The facilities to be provided create a new discharge or relocate an existing discharge to surface or ground waters.

(b) The facilities result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters.

(c) The action is known or expected to have a significant effect on the quality of the human environment, whether individually, cumulatively over time or in conjunction with other federal, state, local or private actions.

(d) The action is known or expected to affect directly or indirectly cultural resources, habitats of endangered or threatened species, environmentally important natural resource areas such as floodplains, wetlands, important farmlands, aquifer recharge zones or other resource areas.

(e) The action is known or expected not to be cost-effective or to cause significant public controversy.

4. The division may request the commission to exclude, by amendment to this section, any other category of projects for which there is sufficient evidence that a significant effect on the quality of the environment is unlikely.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42112)

NAC 445A.745 Categorical exclusion: Public notice. If a categorical exclusion is granted:

1. A notice that the exclusion is available for review must be published in a newspaper of general circulation throughout the state.

2. The exclusion must be mailed to each person included on a mailing list maintained by the division. The mailing list must include appropriate federal and state agencies, municipalities and interested members of the public.

3. A copy of the exclusion must be submitted to the state clearinghouse for review.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42113)

NAC 445A.746 Categorical exclusion: Review. Thirty days must be allowed for review of any categorical exclusion. If no significant comment is received during that period, the process of environmental review will be considered complete. If any such comment is received during that period, it must be resolved before the process of environmental review is completed.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42114)

NAC 445A.747 Commitment of financial assistance. Financial assistance from the fund may be committed upon the completion of the environmental review process unless the division determines that the nature of the project or environmental conditions have changed significantly from those which were considered in the categorical exclusion.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42115)

NAC 445A.748 Review of completed facility plan; environmental assessment.

1. The division shall review the completed facility plan with particular attention to the environmental information document and its use in the development of alternatives and the selection of a preferred alternative. An adequate environmental information document must be part of any facility plan submitted. The environmental information document must be of sufficient scope to enable the division to approve or deny any request to partition the environmental review process and to prepare an environmental assessment.

2. The process of environmental assessment must cover all potentially significant environmental impacts. The division shall prepare a preliminary environmental assessment in sufficient detail to serve as an adequate basis for an independent environmental review and for the decision to prepare and issue a finding of no significant impact or an environmental impact statement. The division may require the submission of supplementary information before approving any facility plan. Each of the following areas must be reviewed to identify potentially significant environmental concerns and all potential impacts must be addressed in the environmental assessment:

(a) For the area delineated in the facility plan, the existing environmental conditions relevant to the analysis of alternatives or to determining the environmental impacts of the proposed action.

(b) The relevant future environmental conditions without the project.

(c) The purpose of and need for the facility. This must include a summary discussion and demonstration of the need for wastewater treatment in the area encompassed by the facility plan, with particular emphasis on existing public health or water quality problems and their severity and extent.

(d) A comparative analysis of feasible alternatives, including the no action alternative. The alternatives must be reviewed with respect to:

(1) Capital and operating costs;

(2) Direct, indirect and cumulative environmental effects;

(3) Physical, legal or institutional constraints; and

(4) Compliance with regulatory requirements.

Special attention must be given to the environmental consequences of long-term, irreversible and induced environmental impacts. The reasons for rejecting any alternative must be presented in addition to any significant environmental benefits precluded by rejection of an alternative.

(e) A full range of relevant environmental impacts of the proposed action must be discussed, including measures to mitigate adverse impacts and any irreversible or irretrievable commitments of resources to the project. Any specific requirements, including conditions of financial assistance and the requirements of an areawide waste treatment management plan or nonpoint source management program, must be identified and referenced. In addition to these items, the division may require that other analyses and data which are needed to satisfy environmental review requirements be included with the facility plan.

3. The division shall not accept a facility plan if the applicant has not made or agreed to make changes in the project in accordance with determinations made in a finding of no significant impact based on its supporting environmental assessment or the record of decision for an environmental impact statement.

4. Sources of information used to describe the existing environment and to assess future environmental impacts must be clearly referenced. These sources must include regional, state and federal agencies with responsibility or interest in the area and actions described in the facility plan.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42116)

NAC 445A.749 Determination of whether to issue finding of no significant impact or to initiate preparation of environmental impact statement.

1. The division shall apply the criteria for initiating environmental impact statements to:

(a) A complete facility plan;

(b) The environmental information document;

(c) The preliminary environmental assessment; and

(d) Any other written material deemed necessary by the division as necessary to make an environmental impact statement determination.

2. If the division determines that an environmental impact statement is to be prepared, a formal environmental assessment is not required. If the division identifies deficiencies in the environmental information document, preliminary environmental assessment or other supporting material, necessary corrections must be made to this material. Any determination to issue a finding of no significant impact or to prepare an environmental impact statement is a final action by the division and is not subject to administrative review.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42117)

NAC 445A.750 Partitioning of environmental review for components of project.

1. Under certain circumstances, the building of a portion of a wastewater treatment works may be justified in advance of completing all requirements of the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 et seq., for the remainder of the treatment works. If there are overriding considerations of cost or impaired program effectiveness, the division may award financial assistance for a discrete component of a complete wastewater treatment works.

2. The process of partitioning the environmental review for a discrete component must comply with the criteria and procedures described in subsection 3. In addition, all reasonable alternatives for the overall wastewater treatment works of which the component is a part must have been previously identified, and each part of the environmental review for the remainder of the overall facility plan must comply with all the requirements of NAC 445A.685 to 445A.805, inclusive.

3. To satisfy the criteria for partitioning, a component of a project must:

(a) Immediately remedy a public health, water quality or other environmental problem;

(b) Not foreclose any reasonable alternatives identified for the overall wastewater treatment works;

(c) Not cause significant adverse direct or indirect environmental impacts, including those which cannot be acceptably mitigated without completing the entire wastewater treatment system of which the component is a part; and

(d) Not be highly controversial.

4. A request for partitioning must contain:

(a) A description of the discrete component proposed for construction before completing the environmental review of the entire facility plan;

(b) A description of the manner in which the component meets the criteria described in subsection 3;

(c) The environmental information required by NAC 445A.685 to 445A.805, inclusive; and

(d) Any preliminary information that may be important in an environmental impact statement determination for the entire facility plan.

5. The division shall:

(a) Review the request for partitioning to determine whether it complies with the requirements of this section; and

(b) If partitioning is appropriate, prepare and issue a finding of no significant impact for the component proposed for construction.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42118)

NAC 445A.751 Finding of no significant impact: Issuance; notice.

1. If, after completion of the division's review of the facility plan, it is determined that an environmental impact statement will not be required, the division shall issue a finding of no significant impact. This finding must be based upon the division's independent review of the preliminary environmental assessment and any other environmental information deemed necessary. Following the review by the division, the environmental assessment must be finalized and made available for review by the public. The finding of no significant impact must list mitigation measures necessary to make the recommended alternative environmentally acceptable and must note any other environmental documents related to it.

2. Notice of a finding of no significant impact for review must be published in a newspaper of general circulation throughout the state.

3. Copies of a finding of no significant impact must be mailed directly to persons included on a mailing list maintained by the division. The mailing list must include appropriate federal and state agencies, municipalities and interested members of the public. An additional copy of the finding must be submitted to the state clearinghouse for review.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42119)

NAC 445A.752 Finding of no significant impact: Review.

1. The period of time allowed for review of finding of no significant impacts is 30 days. If no significant comments are received during that time, the environmental review process shall be deemed complete.

2. Significant comments received during the review period must be resolved before completing the environmental review process.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4212)

NAC 445A.753 Provision of financial assistance following finding of no significant impact.

1. After an environmental assessment has been prepared and the issued finding of no significant impact becomes effective for the facility plan for the study area, a commitment of financial assistance may be made without preparation of an additional finding of no significant impacts, unless the division determines that the project or environmental conditions have changed significantly from those which underwent environmental review.

2. The division shall ensure itself that mitigation measures identified in the facility plan or in the finding of no significant impact will be implemented by the applicant. This must be done

by conditioning the agreement for financial assistance and discharge permit upon compliance with all agreed-upon mitigation measures.

3. In any case in which an environmental assessment or categorical exclusion is 5 or more years old, the division shall reevaluate the project, environmental conditions and public views and, before awarding financial assistance:

(a) Issue a public notice reaffirming its decision to proceed with the project without revising the environmental assessment;

(b) Update information and prepare, issue and distribute a revised environmental assessment and finding of no significant impact; or

(c) Withdraw the finding of no significant impact and publish a notice of intent to produce an environmental impact statement. The division shall thereafter prepare, issue and distribute an environmental impact statement and record of decision.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42121)

NAC 445A.754 Environmental impact statement: When required. The division shall ensure that an environmental impact statement is prepared and issued whenever the division determines, without limitation, that an action is known or expected:

1. To have a significant effect on the quality of the human environment, either individually, cumulatively over time or in conjunction with other federal, state, local or private actions;

2. To affect directly or indirectly recognized cultural resources, habitats of endangered or threatened species, environmentally important natural resource areas such as floodplains, wetlands, important farmlands, aquifer recharge zones, scenic areas or other resource areas; or

3. Not to be cost-effective or to cause significant public controversy.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42122)

NAC 445A.755 Environmental impact statement: Procedure for preparing.

1. If the division determines that an environmental impact statement will be required, the division shall prepare and distribute a notice of intent.

2. As soon as possible after the distribution of the notice of intent, the division shall convene a meeting of affected federal, state and local agencies, affected Indian tribes, the recipient and other interested parties to determine the scope of the environmental impact statement. As part of this meeting, the division shall:

(a) Determine the significant issues to be analyzed in depth in the environmental impact statement;

(b) Identify the preliminary range of alternatives to be considered;

(c) Identify potential cooperating agencies and determine the information or analyses that may be needed from those agencies or other parties;

(d) Discuss the method for preparing the environmental impact statement and the strategy for securing public participation; and

(e) Determine the relationship between the environmental impact statement and the completion of the facility plan and any necessary coordination between the preparers of both documents.

3. Immediately following the meeting required by subsection 2, the division shall commence the identification and evaluation of all potentially viable alternatives to address adequately the range of issues identified at the meeting. Additional issues may be addressed or others eliminated during this process and the reasons for doing so may be documented as part of the environmental impact statement.

4. Except as otherwise provided in subsection 5, after the division determines the need for an environmental impact statement, the division shall:

(a) Cause the statement to be prepared by members of its staff; or

(b) Contract for the preparation of the statement with a qualified consulting firm.
The applicant will be charged a fee to cover the costs incurred in preparing the environmental impact statement.

5. If a federal agency is required to prepare an environmental impact statement, the division and the applicant need not participate in the cost of the environmental impact statement, but shall cooperate in the preparation of the statement.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42123)

NAC 445A.756 Environmental impact statement: Public notice; distribution of draft.

1. Upon making a determination that an environmental impact statement is required in connection with a proposed project, the division shall publish in a newspaper of general circulation and shall distribute a notice of intent to publish an environmental impact statement.

2. Copies of the draft environmental impact statement must be provided to all local, state and federal agencies and public organizations having an interest in the proposed project and must be made available to the public for review. The following steps must be followed in distributing the draft:

(a) A notice of the availability of the draft must be published in newspapers of general circulation throughout the state.

(b) The draft must be mailed directly to each person included on a mailing list maintained by the division. The mailing list must include appropriate federal and state agencies, municipalities and interested members of the public.

(c) Copies of the draft must be submitted to the state clearinghouse for review.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42124)

NAC 445A.757 Environmental impact statement: Review of draft. The time allowed for review of the draft environmental impact statement is 45 days. If no significant comments are received during that time, the environmental review process shall be deemed complete. Any significant comments received during the period of review must be resolved before completing the environmental review process.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42125)

NAC 445A.758 Environmental impact statement: Fee for copies of documents. Members of the public may be charged a reasonable fee, not to exceed the cost of reproduction, for a copy of any draft or final environmental impact statement or any supporting document.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42126)

NAC 445A.759 Environmental impact statement: Public hearing. Public hearings must be scheduled by the division and held in accordance with the provisions of chapters 233B and 445A of NRS. The division shall schedule not less than two public hearings. The first of these must be scheduled after alternatives have been developed and the second must be scheduled before the environmental impact statement is finalized.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42127)

NAC 445A.760 Additional procedures for securing public participation. The division may institute such additional procedures for securing public participation as are deemed necessary during the environmental review process.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42128)

NAC 445A.761 Preparation of final environmental impact statement. After the comment period, public hearings and consideration of comments received during the public participation process, a final environmental impact statement must be prepared. The final environmental impact statement must consist of:

1. The draft environmental impact statement;
2. Comments received concerning the draft environmental impact statement;
3. A list of persons commenting on the draft environmental impact statement;
4. The response of the division to each significant comment received; and
5. Any other information deemed appropriate by the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42129)

NAC 445A.762 Approval of facility plan: Record of decision; provision of financial assistance.

1. After a final environmental impact statement has been issued, the division shall prepare and issue a record of decision in conjunction with its approval of the facility plan. The record of decision must include an identification of mitigation measures derived from the environmental impact statement process.

2. Before approving a facility plan, the division shall ensure that any mitigation measures identified in the record of decision will be implemented by the applicant. An applicant shall implement mitigation measures agreed upon during the environmental review process. The division shall condition the contract for financial assistance and discharge permit upon compliance by the applicant with agreed-upon mitigation measures.

3. After the record of decision is prepared on the selected or preferred alternative for the facility plan described in the environmental impact statement and the facility plan is approved, a commitment of financial assistance may be made without preparation of supplemental environmental impact statements, unless the division determines that the project or the environmental conditions described within the current environmental impact statement have changed significantly.

4. In any case in which the environmental impact statement is 5 or more years old, the division shall reevaluate the project, environmental conditions and public views, compare them with the information contained in the environmental impact statement and, before awarding financial assistance:

(a) Prepare, issue and distribute a finding of no significant impact, affirming its decision to proceed with the project, and documenting that no additional significant impacts were identified during the reevaluation which would require supplementing the environmental impact statement; or

(b) Conduct additional studies and prepare, issue and distribute a supplemental environmental impact statement and document to the original or any revised decision in an addendum to the record of decision.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4213)

Awarding of Financial Assistance

NAC 445A.765 Establishment and use of priority list.

1. The department shall provide financial assistance from the fund to projects on a list of projects developed by the division in accordance with a priority system meeting the requirements of NAC 445A.767. The list and system must be designed to achieve the optimum management of water quality consistent with the goals and requirements of the Act.

2. In establishing the priority of projects, the division shall also consider the total amount of money available, the needs and priorities set forth in areawide water quality management plans and any other factors contained in the state priority system.

3. The priority list must include an estimate of the eligible cost of each project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42135)

NAC 445A.766 Establishment of reserves.

1. In developing its priority list, the division shall establish the reserves required or authorized by the Act.

2. The division may reserve not more than 4 percent of the state's grant awards. This money must be used to administer the fund and to manage the program.

3. The division shall, in accordance with the provisions of 33 U.S.C. § 1384(b), reserve 1 percent of its annual allotment or $100,000, whichever is more, to carry out water quality management planning.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42136)

NAC 445A.767 Use of and requirements for priority system.

1. A priority system must be used to rank projects that are considered eligible for financial assistance from the fund.

2. The priority system must:

(a) Give highest priority to projects that are necessary to meet the enforceable requirements of the Act.

(b) Establish procedures for administration, management and public participation required to develop and revise the list of projects.

(c) Include the following criteria for ranking projects:

(1) The elimination of pollution from surface waters and ground waters within this state.

(2) The protection of the health of the people of this state from harm caused by the inadequate or improper treatment, collection or disposal of wastewater.

(3) The attainment of standards of water quality adopted by the state environmental commission to protect designated beneficial uses.

(4) The operation of the fund in such a manner so as to impose the least possible financial burden on municipalities.

(d) Include categories of need. A project must fall into at least one of the following categories to be eligible for financial assistance from the fund:

(1) Category I Secondary treatment or any cost-effective alternative thereto.
(2) Category II Advanced treatment (treatment more stringent than secondary treatment).
(3) Category IIIA Infiltration and inflow protection.
(4) Category IIIB Major sewer system rehabilitation.
(5) Category IVA New collection systems and appurtenances.
(6) Category IVB New interceptor sewers and appurtenances.
(7) Category V Correction of combined sewer overflows.
(8) Category VI Treatment of wastewaters from nonpoint sources.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42137)

NAC 445A.768 Revision of priority system and priority list; public hearings.

1. The division may revise its priority system and priority list as necessary.

2. The division shall hold public hearings:

(a) Before adopting its priority system;

(b) Before adopting any significant change to an approved priority system;

(c) Before adopting its annual priority list; and

(d) Before revising its priority list unless the division determines that the revision is not significant.

3. Public hearings may be conducted in the manner determined by the division or in conjunction with any regular public meeting of the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42138)

NAC 445A.769 Requirements for initial approval of financial assistance.

1. To obtain approval of financial assistance, an applicant must submit a letter of intent, a facility plan, an environmental document and a draft revenue program. After these documents are approved, the division shall consider the project for initial approval of financial assistance.

2. Factors to be considered in awarding approval include:

(a) Placement on the priority list;

(b) The schedule for completing the design of the project; and

(c) The severity of any public health or water quality problem which will be corrected by the proposed project.

3. Initial approval of financial assistance for a project shall be deemed a binding commitment to provide such assistance.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42139)

NAC 445A.770 Documents required; contracts for financial assistance; subsequent design reviews.

1. To obtain financial assistance from the fund, the following documents must be submitted:

(a) An application for assistance in the form prescribed by the division.

(b) Final plans and specifications and an estimate by an engineer of the costs of construction for the project.

(c) A preliminary project schedule which provides a timetable for advertising and for opening bids, hiring and training operators, submission of an operation and maintenance manual, adoption of a system of user charges and a sewer use ordinance, completion of construction and initiation of operation. As used in this paragraph, initiation of operation means the date specified by the recipient on which use of the project begins for the purposes that it was planned, designed and built.

2. A contract for financial assistance must not be offered until the applicant:

(a) Receives initial approval of assistance, the completed design of the project, and the plans and specifications for the project; and

(b) Anticipates bid solicitation in the near future.

3. The contract for financial assistance must be prepared and transmitted to the applicant for his signature no later than the time of the approval to award the construction contract.

4. A determination of project eligibility must be made during the preparation of the facility plan. After the initial approval of financial assistance, subsequent design reviews must be for the purpose of ensuring that the proposed design is conceptually the same as that approved by the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4214)

NAC 445A.771 Examination of plans and specifications; submission of documents for review.

1. An examination of the plans and specifications for a project must be performed to determine whether:

(a) The design is consistent with the facilities described in the facility plan;

(b) The proposed project, in concept, will meet discharge requirements; and

(c) The project will comply with applicable federal and state requirements.

2. An applicant shall submit the following documents for review:

(a) A design report.

(b) Except as otherwise provided in this paragraph, a set of contract documents, specifications and plans not less than 90 percent complete. Depending upon the complexity of the project a 50 percent submittal may be required. The contract documents must include any general or special condition prescribed by the division.

(c) A final set of contract documents, specifications and plans. These must be submitted before advertising for bids.

(d) Any addenda issued during the bidding process.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42141)

NAC 445A.772 Submission of agreements regarding projects intended to serve two or more municipalities. If a project will serve two or more municipalities, the applicant shall submit the executed intermunicipal agreement, contract or other legally binding instrument necessary for the financing, building and operation of the proposed treatment works. This instrument must set forth the basis upon which costs are allocated, the formula by which costs are allocated and the manner in which the system of allocating costs will be administered.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42142)

NAC 445A.773 Provision of financial assistance to help offset costs.

1. A fixed amount of financial assistance must be provided to a recipient to help offset costs for planning, design and construction inspection, engineering and management. The amount allowed for construction inspection, engineering and management must be calculated by dividing the costs of construction incurred to date by the total eligible costs of construction and multiplying the result by the amount of the total allowance for construction services. As used in this subsection, "engineering" means consultation, investigation, the preparation of reports or other services for a project within the scope of the practice of architecture or professional engineering as defined by the law of this state.

2. The recipient may request payment of the entire allowance for planning and design as soon as the agreement for financial assistance is signed and money is available.

3. Financial assistance may also be provided for:

(a) The allowable costs of the construction contract;

(b) The allowable costs of land;

(c) A contingency fund; and

(d) The cost of preparing an environmental impact statement if one is required.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42143)

NAC 445A.774 Conditions of financial assistance and repayment. Conditions of financial assistance and of any repayment of such assistance:

1. Must be set forth in the agreement for financial assistance.

2. Are subject to any requirements and limitations imposed by the United States Environmental Protection Agency.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42144)

NAC 445A.775 Fee for award of financial assistance.

1. The director may, with the approval of the department of administration, impose and collect a fee for each award of financial assistance from the fund. The fee must not exceed 0.5 percent of:

(a) The amount of the loan, if assistance is given in the form of a loan.

(b) The amount of the obligation, if assistance is given in the form of a guarantee of a municipal obligation or the purchase of insurance for such an obligation.

(c) The amount refinanced, if assistance is given in the form of the refinancing of a municipal obligation.

2. Money so collected must be used to defray the cost of administering the fund.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42145)

Requirements for Projects

NAC 445A.777 Certification of compliance with requirements of federal law. Before a contract for financial assistance is transmitted to it for signature, a recipient must certify that it has complied and will comply with all requirements of federal law that are determined by the United States Environmental Protection Agency to apply to the operation of the fund.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4215)

NAC 445A.778 Consistency of project with water quality management plan. A project must be consistent with the approved elements of any applicable water quality management plan developed pursuant to 33 U.S.C. § 1285(j), 1288, 1313(e) or 1329 and the applicant must be the wastewater management agency designated in that plan.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42151)

NAC 445A.779 Adoption of accounting standards by reference; maintenance of separate project accounts.

1. The state environmental commission hereby adopts by reference the accounting standards contained in *Standards for Audit of Governmental Organizations, Programs, Activities and Functions*, published by the General Accounting Office. A copy of this publication is available at a cost of $3.50 from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402.

2. A recipient of financial assistance shall maintain separate project accounts in accordance with generally accepted governmental accounting standards, including those adopted by reference in subsection 1.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42152)

NAC 445A.780 Maintenance of records and accounts.

1. A recipient shall:

(a) Establish an official file for the project. The file must contain an adequate record of all significant actions relating to the project.

(b) Establish accounts that accurately and adequately show all amounts of money:

(1) Received as financial assistance from the fund.

(2) Received and spent on the project.

(3) Received as income from the project.

(c) Establish a system of accounting which ensures that the final total costs of the project, including all direct and indirect costs, are recorded accurately.

(d) Establish and maintain such other accounts and records as are required by the division to comply with requirements for reporting established by the Federal Government.

(e) Retain all records relating to the project for at least 3 years after final repayment of financial assistance has been made or for any longer period required by the division.

2. Any records of a recipient relating to a project must be made available at any reasonable time for inspection or copying by any authorized representative of the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42153)

NAC 445A.781 Audit of financial records relating to project.

1. Whenever an audit is required by federal law or by an agency of the Federal Government, or whenever it determines that an audit is necessary to ensure the integrity of the fund, the division may require that an audit be performed of financial records relating to a project.

2. Any audit required pursuant to this section must be performed at the expense of the recipient by a certified public accountant who is independent of the recipient.

3. A report of the audit must be prepared by the auditor in the form prescribed by the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42154)

NAC 445A.782 Use of value engineering.

1. The applicant shall conduct value engineering if the total estimated cost of building the treatment works is more than $10,000,000.

2. Any recommendations derived from the value engineering must be implemented to the extent feasible.

3. As used in this section, "value engineering" means a specialized technique for controlling costs which uses a systematic and creative approach to identify and to focus on any unnecessary cost to reduce the cost of a project without affecting the reliability or efficiency of the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42155)

NAC 445A.783 Projects involving collection system work. If a project involves collection system work, that work:

1. Must be for the replacement or major rehabilitation of an existing collection system and must be necessary to the integrity and performance of the complete waste treatment system; or

2. Must be for a new cost-effective collection system in an existing community which has sufficient existing or planned capacity to adequately treat such collected wastewater. Collection systems which primarily serve undeveloped areas are not eligible for financial assistance. If assistance is awarded, the recipient shall provide assurances that the existing population will connect to the collection system within a reasonable time after completion of the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42156)

NAC 445A.784 Assurance of access to privately owned individual system. An applicant for a privately owned individual system shall provide assurance of access to the system at all reasonable times for such purposes as inspection, monitoring, building, operating, rehabilitation and replacement.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42157)

NAC 445A.785 Amount of infiltration and inflow into sewer system.

1. Except as otherwise provided in this subsection, an applicant shall demonstrate to the satisfaction of the division that each sewer system discharging into the proposed treatment works project is not or will not be subject to excessive infiltration or inflow. Inflow into combined sewers shall not be considered excessive in any event.

2. If the rate of inflow results or will result in chronic operational problems, the applicant shall perform a study of the sewer system to determine the quantity of excessive inflow and propose a program to eliminate the problem.

3. If the applicant believes that any specific portion of the sewer system is subject to excessive infiltration, the applicant may confirm that belief through a cost-effect analysis and propose a program of rehabilitation to eliminate the problem.

4. If an existing sewer system is subject to excessive operation and maintenance costs, overflows or blockages because of deterioration or overloading of the system, the applicant may

perform an analysis of the system and propose a program of sewer replacement to eliminate or substantially reduce the problem.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42158)

NAC 445A.786 Approval of system of user charges or ordinance governing sewer use. An applicant must obtain the approval of the division for any system of user charges or ordinance governing sewer use. If any such system or ordinance is in effect, the applicant shall demonstrate to the satisfaction of the division that it complies with the requirements of NAC 445A.787 or NAC 445A.788 and 445A.789, as appropriate, and is enforced.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42159)

NAC 445A.787 Requirements for ordinance governing sewer use. An ordinance governing sewer use must:

1. Prohibit any new connections from inflow sources into treatment works;
2. Require that new sewers and connections to treatment works be properly designed and constructed; and
3. Require that all wastewater introduced into the treatment works not contain toxic or other pollutants in amounts or concentrations that:

(a) Endanger the safety of the public or the physical integrity of the treatment works; or

(b) Violate effluent or water quality limitations.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4216)

NAC 445A.788 Requirements for system of user charges. A system of user charges must:

1. Be designed to produce the money required for costs of operation, maintenance and replacement of treatment works;
2. Provide that each user who discharges pollutants which cause an increase in the cost of managing the effluent or sludge from the treatment works shall pay for the increased cost;
3. Provide that each user or class of users shall pay its share of the cost of operation, maintenance and replacement of treatment works within the service area of the applicant, based upon the proportionate contribution by the user or class to the total wastewater load;
4. Provide that each user will be notified at least annually, in conjunction with a regular bill or other means acceptable to the division, of that portion of the bill attributable to the costs of operation, maintenance and replacement; and
5. Include an adequate system of financial management that will account accurately for revenues generated by the system and expenditures for operation, maintenance and replacement based on an adequate budget identifying the basis for determining the annual operation and maintenance costs and the costs of personnel, material, energy and administration.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42161)

NAC 445A.789 Adoption of system of user charges. One or more municipal legislative enactments must incorporate the system of user charges. If a project accepts wastewater from other municipalities, the subscribers receiving waste treatment services from the recipient shall adopt a system of user charges meeting the requirements of NAC 445A.788. This system must be incorporated in an appropriate legislative enactment by each municipality contributing wastes to the treatment works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42162)

NAC 445A.790 Effect of system of user charges on inconsistent agreements. A system of user charges supersedes any agreement or contract to the extent the agreement or contract is inconsistent with any provision of NAC 445A.788 or 445A.789.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42163)

NAC 445A.791 Periods for adoption and implementation of sewer use ordinance and system of user charges. A recipient shall adopt its sewer use ordinance and implement its system of user charges before the treatment works is placed in operation. The recipient shall implement the system of user charges and sewer use ordinance during the entire useful life of the treatment works.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42164)

NAC 445A.792 Approval of award of contract for construction relating to project; resolution of disputes regarding bidding.

1. Before awarding any construction contract relating to a project, an applicant for financial assistance shall submit to the division, in the form prescribed by it, a request for approval of the award.
2. The division may approve the award of the contract only to the lowest responsive, responsible bidder. The division shall also review the request for approval to ensure that the applicant, his consultants and his contractors have complied with the positive effort policies relating to disadvantaged businesses.
3. The division shall not participate in the resolution of any dispute relating to bidding. The resolution of any such dispute is the sole responsibility of the applicant. A request for approval must not be granted until any such dispute has been resolved.
4. A request for approval must not be granted until it can be demonstrated that the project is consistent with approved water management plans and that a valid discharge permit has been issued for the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42165)

NAC 445A.793 Period for award of prime construction contract; extension of period.

1. Except as otherwise provided in subsection 2, a recipient of financial assistance shall award the prime construction contract within 90 days after the division approves the award of the contract. If the contract is not awarded within that time, the contract for financial assistance is null and void.
2. The division may, upon the request of a recipient, grant an extension of the time provided by subsection 1 in any case where unusual or extenuating circumstances exist. Any request for an extension must be made in writing and must set forth facts justifying the extension.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42166)

NAC 445A.794 Compliance with federal and state law regarding labor and wages.

1. A recipient of financial assistance shall comply with the provisions of the Davis-Bacon Act, 40 U.S.C. §§ 276a et seq., if they apply, and the provisions of NRS 338.010 to 338.090, inclusive.
2. The division shall review the final contract documents to verify that the proper federal and state wage determinations have been included.
3. The recipient is responsible for assuring compliance with all applicable labor laws.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42167)

NAC 445A.795 Participation by disadvantaged businesses: Generally.

1. An applicant for financial assistance shall comply with the requirements of federal law concerning the participation of disadvantaged businesses.

2. Each recipient of financial assistance shall attempt to comply with the fair share percentages established annually for disadvantaged businesses by the division and the United States Environmental Protection Agency. Any recipient not meeting these goals shall submit evidence of compliance with the affirmative steps identified in NAC 445A.796.

3. An applicant for financial assistance shall submit with his request for approval of an award a report, in the form prescribed by the division, of participation by disadvantaged businesses. If the low bidder on any construction contract does not meet the fair share requirements for disadvantaged businesses, the applicant shall submit to the division evidence of compliance by the bidder with the affirmative steps identified in NAC 445A.796.

4. A recipient of financial assistance shall submit to the division, in the form prescribed by the division, a report of participation by disadvantaged businesses following any quarter during which any procurement of $10,000 or more is executed for the project. As used in this subsection, "quarter" means a quarter in the federal fiscal year.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42168)

NAC 445A.796 Participation by disadvantaged businesses: Awarding of subcontracts. If the contractor for a project awards any subcontracts relating to the project, he shall take affirmative steps to ensure that disadvantaged businesses are used to the extent possible as sources of supplies, equipment, construction and services. These affirmative steps must include:

1. Including such businesses on solicitation lists.

2. Assuring that such businesses are solicited if they are potential sources.

3. Dividing total requirements, if economically feasible, into small tasks or quantities to permit maximum participation by disadvantaged businesses.

4. Using the services of Nevada Economic Development Company and the Nevada Office of Small Business to locate disadvantaged businesses capable of performing the work to be subcontracted.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42169)

NAC 445A.797 Notification of division regarding steps in construction and beginning of operation of project. A recipient of financial assistance shall notify the division promptly in writing of:

1. The award of the prime construction contract for the project.

2. The beginning of construction of the project, stating the date on which he anticipates construction will be completed.

3. Any substantial change in the scope of the project. No such change may be undertaken until it has been approved in writing by the division.

4. The cessation of all major construction work on the project, in any case where the cessation of work is expected to or does continue for 30 days or more.

5. Any circumstance or condition that is expected to or does delay the completion of construction for 90 days or more after the anticipated date of completion reported pursuant to subsection 2.

6. The completion of construction of the project.

7. The beginning of the operation of the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.4217)

NAC 445A.798 Entry by representative of division onto site of project. During the construction of a project, the recipient shall permit any authorized representative of the division to enter onto the site of the project at any reasonable time.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42171)

NAC 445A.799 Oversight inspections; final construction inspection.

1. The division may conduct oversight inspections during the construction of a project. The primary purpose of any such inspection must be to ascertain that the recipient is constructing the project according to applicable contract requirements. The first inspection must normally be conducted at the time the project is 10 percent complete. Subsequent inspections must be conducted only if they are deemed necessary by the division.

2. The division shall conduct a final construction inspection of each project. The primary purpose of this inspection must be to ascertain that the project has been constructed according to the approved plans and specifications and to ensure that required mitigation measures have been implemented. At the time of the inspection, the completion date for the project must be established for the purpose of beginning the 1-year period for certification of the performance of the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42172)

NAC 445A.800 Submission of copies of change orders. A copy of each executed change order must be submitted to the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42173)

NAC 445A.801 Submission and approval of operation and maintenance manual for project. Before a project is 90 percent completed, a recipient shall submit to the division an operation and maintenance manual for the project. Not more than 90 percent of the total financial assistance for the project may be provided until the manual has been reviewed and approved by the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42174)

NAC 445A.802 Submission of set of as-built drawings of project. A recipient shall supply the division with one set of as-built drawings of the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42175)

NAC 445A.803 Certification of performance of project; corrective action.

1. The division shall establish, in consultation with each recipient, the date that project operations are capable of being initiated for the purpose of establishing the procedure for certification of the performance of the project.

2. Before any certification of performance for a project is submitted, the division shall conduct an inspection of the project to ensure that its facilities are operating and capable of meeting discharge standards.

3. After a project has been in operation for 1 year, the recipient shall submit a certification that the project meets or fails to meet performance standards. The project must comply with all applicable design specifications and, except for a nondischarging project, all applicable effluent requirements. Any nondischarging project must, where appropriate, meet requirements for the elimination of overflows and the reduction of infiltration or inflow. At the request of a recipient, the division shall assist in developing applicable performance standards.

4. If the project cannot be affirmatively certified, the recipient shall prepare a report of corrective action which includes an analysis of the cause of the failure of the project to meet

performance standards and an estimate of the nature, scope and cost of necessary corrective action. The division shall conduct follow-up inspections as necessary to determine whether the project meets performance standards. The cost of any corrective action is not eligible for financial assistance.

5. As used in this section, "performance standards" means the criteria used to evaluate the compliance of a project with the requirements contained in design specifications and a discharge permit.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42176)

NAC 445A.804 Notification of claims arising from or related to project. A recipient shall notify the division of any claims against the owner, the engineer, the contractor or any subcontractor arising from or related to the project.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42177)

NAC 445A.805 Approval required to abandon, discontinue use of or dispose of project. A recipient shall not abandon, substantially discontinue his use of, or dispose of a project during its useful life without the prior written approval of the division.

(Added to NAC by Environmental Comm'n, eff. 9-19-90)—(Substituted in revision for NAC 445.42178)

UNDERGROUND INJECTION CONTROL

Definitions

NAC 445A.810 Definitions. (NRS 445A.425) As used in NAC 445A.810 to 445A.925, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.811 to 445A.840, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.811 "Application" defined. (NRS 445A.425) "Application" means the form provided by the division that is used to apply for a permit for underground injection, including any modifications of or additions to the form.

(Added to NAC by Environmental Comm'n, eff. 10-21-87; A by R042-01, 10-25-2001)

NAC 445A.812 "Aquifer" defined. "Aquifer" means a geological formation, group of formations or part of a formation capable of yielding a significant amount of water to a well or spring.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4221)

NAC 445A.813 "Area of review" defined. "Area of review" means the area surrounding an injection well as determined pursuant to NAC 445A.897 and 445A.898.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42215)

NAC 445A.814 "Casing" defined. "Casing" means a pipe or tubing which is lowered into a borehole during or after drilling to:

1. Support the sides of the hole and prevent the walls from collapsing;

2. Prevent loss of drilling mud into porous ground; or
3. Prevent water, gas or other fluids from entering or leaving the hole.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4222)

NAC 445A.815 "Catastrophic collapse" defined. "Catastrophic collapse" means a sudden and complete failure of overlying strata caused by the removal of underlying materials.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42225)

NAC 445A.816 "Cementing" defined. "Cementing" means the pumping of cement into a drilled hole or the forcing of cement behind the casing.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4223)

NAC 445A.8163 "Cesspool" defined. (NRS 445A.425) "Cesspool" means a drywell which receives untreated sanitary waste containing human excreta and which may have an open bottom or perforated sides, or both.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8167 "Community water system" defined. (NRS 445A.425) "Community water system" has the meaning ascribed to it in 40 C.F.R. § 144.86(d), as that section existed on July 1, 2000.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.817 "Confining zone" defined. "Confining zone" means a geological formation, group of formations or part of a formation capable of limiting the movement of fluids from a zone of injection.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42235)

NAC 445A.818 "Contaminant" defined. "Contaminant" has the meaning ascribed to it in NRS 445A.325.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4224)

NAC 445A.819 "Degrade" defined. "Degrade" means to cause or create an increase in the amount or concentration of any substance in an underground source of drinking water to an extent that:

1. A regulation prescribing standards for primary drinking water is violated; or
2. The director finds that the existing or potential municipal, industrial, domestic or agricultural use of that water is impaired.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42245)

NAC 445A.8195 "Delineate" defined. (NRS 445A.425) "Delineate" means the first step in the assessment process pursuant to which the boundaries of a ground water protection area are identified as a part of the source water assessment and protection program of this state.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.820 "Department" defined. "Department" means the state department of conservation and natural resources.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4225)

NAC 445A.821 "Director" defined. "Director" means the director of the department or his designated agent.
(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42255)

NAC 445A.8213 "Division" defined. (NRS 445A.425) "Division" means the division of environmental protection of the department.
(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8217 "Drywell" defined. (NRS 445A.425) "Drywell" means a well, other than an improved sinkhole or a subsurface fluid distribution system, that is completed above the water table so that the bottom and sides of the well are typically dry except when receiving fluids.
(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.822 "Fault" defined. "Fault" means a surface or zone of fractured rock along which displacement has occurred.
(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4226)

NAC 445A.823 "Fluid" defined. "Fluid" means any material or substance which flows or moves whether in a semisolid, liquid, sludge, gaseous or other form or state.
(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42265)

NAC 445A.824 "Formation" defined. "Formation" means a body of rock characterized by a degree of lithologic homogeneity which is prevailingly tabular and is mappable on the earth's surface or traceable in the subsurface.
(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4227)

NAC 445A.825 "Ground water" defined. "Ground water" means water below the surface of the land which is in a zone of saturation.
(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42275)

NAC 445A.8255 "Ground water protection area" defined. (NRS 445A.425) "Ground water protection area" means a geographic area that is:
1. Near to or surrounding public water wells, including, without limitation, community water systems and nontransient noncommunity water systems that use ground water as a source of drinking water; and
2. Delineated as a ground water protection area pursuant to the source water assessment and protection program of this state.
(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.826 "Hazardous waste" defined. (NRS 445A.425) "Hazardous waste" means a waste defined as such under the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq., as those sections existed on June 1, 2001.
(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.8263 "Improved sinkhole" defined. (NRS 445A.425) "Improved sinkhole" means a naturally occurring karst depression or other natural crevice found in volcanic terrain

and other geologic settings that has been modified by man to direct or emplace fluid into the subsurface.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8267 "Injection" defined. (NRS 445A.425) "Injection" means the subsurface emplacement of fluids through a well.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.827 "Injection well" defined. (NRS 445A.425) "Injection well" means a well used for the subsurface emplacement of fluids, except fluids associated with active drilling.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.828 "Mechanical integrity" defined. "Mechanical integrity" means a condition of an injection well where there is:

1. No significant leakage in the casing, tubing or packer; and
2. No significant movement of a fluid into an underground source of drinking water through vertical channels adjacent to the well bore.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4229)

NAC 445A.8282 "Motor vehicle waste disposal well" defined. (NRS 445A.425) "Motor vehicle waste disposal well" means a well that receives or has received fluids from the repair and maintenance of vehicles, including, without limitation, fluids from an auto body repair shop, an automotive repair shop, a new or used car dealership, a specialty repair shop or any other facility that repairs or maintains vehicles.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8285 "Nontransient noncommunity water system" defined. (NRS 445A.425) "Nontransient noncommunity water system" has the meaning ascribed to it in 40 C.F.R. § 144.86(e), as that section existed on July 1, 2000.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8287 "Other sensitive ground water area" defined. (NRS 445A.425) "Other sensitive ground water area" means an area which has been identified as critical to protecting underground sources of drinking water from contamination, but which has not been delineated as a ground water protection area.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.829 "Packer" defined. "Packer" means a device lowered into a well to produce a seal which is fluid-tight.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42295)

NAC 445A.830 "Permit" defined. "Permit" means an authorization, license or other document which is issued by the director to carry out the provisions of NAC 445A.810 to 445A.925, inclusive.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.423)

NAC 445A.831 "Person" defined. "Person" means a natural person, association, partnership, corporation, governmental entity or an agent or employee thereof.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42305)

NAC 445A.832 "Plugging" defined. "Plugging" means the stoppage of the flow of water, oil or gas into or from a formation through a borehole or well penetrating that formation.

(Added to NAC by Environmental Comm'n, 10-21-87)—(Substituted in revision for NAC 445.4231)

NAC 445A.833 "Radioactive waste" defined. "Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 C.F.R. Part 20, Appendix B, Table II Column 2.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42315)

NAC 445A.8332 "Sanitary waste" defined. (NRS 445A.425) "Sanitary waste" means liquid or solid wastes originating solely from humans and human activities, including, without limitation, wastes collected from toilets, showers, washbasins, sinks used for cleaning domestic areas, sinks used for food preparation, operations for washing clothing, and sinks or machines used for washing dishes, glasses and utensils used to serve food or beverages. The sources of such waste include, without limitation:

1. Single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds and day-use recreation areas; and
2. Commercial and industrial facilities, so long as the waste is not mixed with industrial waste.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8335 "Septic system" defined. (NRS 445A.425) "Septic system" means a well that is used to emplace sanitary waste below the surface and is typically composed of a septic tank and a subsurface fluid distribution system or disposal system.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8337 "Source water assessment and protection program" defined. (NRS 445A.425) "Source water assessment and protection program" means a program designed by the bureau of health protection services of the health division of the department of human resources to protect drinking water sources which is developed in accordance with 42 U.S.C. § 300j-13, as that section existed on July 1, 2000, and pursuant to which ground water protection areas are delineated by conducting local assessments for each public water system, including, without limitation:

1. Delineating the boundaries of the areas providing source waters for public water systems;
2. Identifying significant potential sources of contaminants in such areas;
3. Determining the susceptibility of public water systems in delineated areas to those sources of contaminants; and
4. Making information concerning the assessment process available to the public.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.834 "Stimulation of a well" defined. "Stimulation of a well" means the following processes used to clean the well bore, enlarge a channel and increase the porosity in the interval to be injected:

1. Surging;
2. Jetting;
3. Blasting;
4. Treatment with acid; and
5. Hydraulic fracturing.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4232)

NAC 445A.835 "Subsidence" defined. "Subsidence" means a lowering of the surface of natural land which is caused by:

1. The movement of the earth;
2. A lowering of the pressure of fluids;
3. The removal of underlying supporting material by mining or solution of solids, artificially or by natural causes;
4. A compaction of the soil because of wetting (hydrocompaction);
5. Oxidation of organic matter in soils; or
6. An increased load on the surface of the land.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42325)

NAC 445A.8355 "Subsurface fluid distribution system" defined. (NRS 445A.425) "Subsurface fluid distribution system" means an assemblage of perforated pipes, drain tiles or other similar mechanisms intended to distribute fluids below the surface of the ground.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.836 "Total dissolved solids" defined. "Total dissolved solids" means the total dissolved solids after filtration as determined by the method specified in 40 C.F.R. Part 136.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.4233)

NAC 445A.837 "Underground source of drinking water" defined. "Underground source of drinking water" means all aquifers within this state regardless of the quality of the water, except those exempted pursuant to NAC 445A.850 to 445A.855, inclusive.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42335)

NAC 445A.838 "Well" defined. (NRS 445A.425) "Well" means:

1. A bored, drilled or driven shaft with a depth greater than the largest surface dimension;
2. A hole which is dug, with a depth greater than the largest surface dimension;
3. An improved sinkhole; or
4. A subsurface fluid distribution system, not including subsurface fluid distribution systems associated with septic systems that have a capacity of 5,000 gallons or less per day or with mining processes.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.839 "Zone for injection" defined. "Zone for injection" means a geological formation, group of formations or part of a formation through which fluids from a well are received.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42345)

NAC 445A.840 "Zone of endangering influence" defined. "Zone of endangering influence" means the area in which increased pressures in the formation for injection may cause migration of the injected fluid or the fluid in the formation into an underground source of drinking water.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4235)

General Provisions

NAC 445A.842 Applicability of regulations. NAC 445A.810 to 445A.925, inclusive, apply to any person proposing to construct, alter, repair or abandon any injection well, or

owning, using or operating, or proposing to use or operate any injection well on any lands within this state except for any injection well which is constructed or operated on land, whether tribal or allotted, within the limits of any Indian reservation or dependent Indian colony under the jurisdiction of the Federal Government.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42355)

NAC 445A.843 Applicable standards of other governmental agencies. The provisions of any federal, state, county or municipal law or regulation establishing standards for injection wells which affords greater protection to the public welfare, safety and health and to the ground water prevail within the jurisdiction of that governmental entity over standards established by NAC 445A.810 to 445A.925, inclusive. Those sections do not replace, or in any way affect the responsibility of any person to comply with the regulations and rules of practice and procedure administered by any other governmental agency.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4236)

NAC 445A.8435 Public access to information concerning locations of ground water protection areas and other sensitive ground water areas. (NRS 445A.425) The division shall ensure that information concerning the locations of ground water protection areas and other sensitive ground water areas is made available to the public in accordance with 40 C.F.R. § 144.87(d).

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.844 Classes of injection wells. NAC 445A.845 to 445A.849, inclusive, define the various classes of injection wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42365)

NAC 445A.845 Class I wells. (NRS 445A.425) A Class I well is an injection well for the disposal of industrial, municipal and radioactive waste, whereby fluids are injected below the lowest formation containing, within one-quarter mile of the well bore, water with a concentration of total dissolved solids of 10,000 milligrams or less per liter, and includes:

1. A well used for the injection of hazardous waste by a person who generates hazardous waste or an owner or operator of a facility for the management of hazardous waste; and
2. A well for the disposal of industrial waste and municipal sewage effluent.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.846 Class II wells. A Class II well is an injection well for the production and storage of oil and gas and includes a well which injects fluids:

1. Which are brought to the surface in connection with the conventional production of oil or natural gas;
2. For enhanced recovery of oil or natural gas; and
3. For storage of hydrocarbons which are liquid at standard temperature and pressure.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42375)

NAC 445A.847 Class III wells. A Class III well involves a special process which injects fluids for the extraction of minerals or energy, except geothermal energy, and includes:

1. Mining of sulfur by the Frasch process;
2. In situ production of uranium or other metals from bodies of ore which have not been conventionally mined;
3. Solution mining of salts or potash; and

4. In situ recovery of fossil fuel, which includes coal, tar sands, oil shale and any other fossil fuel which can be mined by this process.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4238)

NAC 445A.848 Class IV wells. A Class IV well is an injection well which injects hazardous wastes into or above a formation containing, within one-quarter mile of the well bore, an underground source of drinking water or an aquifer which has been exempted pursuant to NAC 445A.850 to 445A.855, inclusive, and includes a well used by:

1. Persons who generate hazardous waste or radiological or high-level radioactive waste; and
2. An owner or operator of a facility for the management of hazardous waste or a site for the disposal of radioactive waste.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42385)

NAC 445A.849 Class V wells. (NRS 445A.425) A Class V well is any injection well not included in Classes I, II, III and IV, and includes:

1. Wells used to inject the water for heating or cooling by a heat pump;
2. Cesspools or other devices receiving wastes which have an open bottom and sometimes have perforated sides;
3. Wells used to inject water previously used for cooling;
4. Wells used to drain surface fluid, primarily the runoff from storms, into a subsurface formation;
5. Wells used for the injection of fluids accumulated from dewatering operations;
6. Drywells and wells used for the injection of nonhazardous wastes into a subsurface formation;
7. Wells used to replenish the water in an aquifer;
8. Wells used to inject water into an aquifer of fresh water to prevent the intrusion of water of a lower quality into the fresh water;
9. Wells used to inject a mixture of water and sand, mill tailings or other solids into subsurface mines;
10. Wells used to inject sanitary waste for facilities other than single-family residences or facilities having a volume capacity of less than 5,000 gallons per day;
11. Wells used to inject fluids into a zone, other than an oil or gas producing zone, to reduce or eliminate subsidence associated with the overdraft of fresh water;
12. Wells used for the storage of hydrocarbons in a gaseous state at standard temperature and pressure;
13. Geothermal injection wells used in contact and noncontact heating and aquaculture, and in the production of energy;
14. Wells used for solution mining of ores or minerals in conventional mines, such as stopes leaching;
15. Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts;
16. Injection wells used in experimental technologies;
17. Injection wells that are approved under a federal or state cleanup program and used to reinject pumped and treated contaminated ground water, other than hazardous waste, back into the same formation.
18. Injection wells used to inject fluids for the chemical or microbiological treatment of contaminated ground water or soil; and
19. Motor vehicle waste disposal wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.8491 Motor vehicle waste disposal wells: Requirements for owner of well in operation or under construction on or before April 5, 2000. (NRS 445A.425, 445A.465)

1. The owner of an existing motor vehicle waste disposal well that was in operation or under construction on or before April 5, 2000, shall close the well, obtain a permit to operate the well or convert the well in accordance with NAC 445A.8493 to 445A.8499, inclusive.

2. Not later than 90 days after October 25, 2001, the owner of the well shall submit to the director information concerning the location and operating status of the well, and such additional information concerning the well as requested by the director.

3. Based on the information provided by the owner of the well, the director shall determine whether the well is located within a ground water protection area and notify the owner of that determination.

4. If the director determines that the well is not located within a ground water protection area, the director shall make a preliminary determination, based on data provided by the division, whether the well is located within an other sensitive ground water area and notify the owner of that determination. If the director makes a preliminary determination that a well is located within an other sensitive ground water area, the owner of the well shall close the well, obtain a permit to operate the well or convert the well in accordance with NAC 445A.8493 to 445A.8499, inclusive.

5. If, by January 1, 2004, or, if an extension has been approved by the Environmental Protection Agency, by January 1, 2005, the local source water assessment has not been completed and the plan for the determination of other sensitive ground water areas has not been carried out for the area in which the motor vehicle waste disposal well is located, the motor vehicle waste disposal well shall be deemed to be located within an other sensitive ground water area and must be permitted, closed or converted accordingly.

6. If the director determines that the well is not located within a ground water protection area or other sensitive ground water area, and if the well is not deemed to be located within an other sensitive ground water area pursuant to subsection 5, the owner shall close the well, obtain a permit to operate the well or convert the well in accordance with its classification pursuant to NAC 445A.810 to 445A.925.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8493 Motor vehicle waste disposal wells: Deadlines for owner of well to meet requirements; extension of deadlines; conversion of well. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in this section, the owner of an existing motor vehicle waste disposal well that is located within:

(a) A ground water protection area shall, not later than 1 year after the date on which the local source water assessment for the area is completed or January 1, 2005, whichever occurs first, close the well, apply for a permit to operate the well or convert the well.

(b) An other sensitive ground water area shall, not later than January 1, 2007, close the well, apply for a permit to operate the well or convert the well.

2. The deadlines set forth in subsection 1 may be extended for not more than 1 year if the Environmental Protection Agency approves an extension for this state pursuant to 40 C.F.R. §§ 144.87(b) and 144.87(c).

3. The director may extend the deadline for the closure of a motor vehicle waste disposal well for not more than 1 year if he determines that the most efficient option for compliance with applicable state and federal requirements concerning such wells is connection to a sanitary sewer or installation of new treatment technology. The director may not extend the deadline for obtaining a permit.

4. The director may authorize the conversion of a motor vehicle waste disposal well to another Class V type of well, including, without limitation, a storm water well, if the conversion is done in accordance with 40 C.F.R. § 144.89(b). The director shall, in conjunction with the owner of the well to be converted, establish a specific schedule pursuant to which the well must be converted.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8495 Motor vehicle waste disposal wells: Application for permit to continue operation of well. (NRS 445A.425, 445A.465)

1. If the owner of a motor vehicle waste disposal well determined to be located within a ground water protection area or other sensitive ground water area wishes to obtain a permit to continue operating the well, the owner must request an application for a permit from the division. The owner must submit a completed application to the director not later than 90 days after the date on which the owner receives the application from the division.

2. Not later than 30 days after the date on which the director receives the application, the director shall review the application to determine whether it is complete. The director may request additional information from an applicant if the director determines that the application is not complete. When an application is determined to be complete, the division shall make a final determination as to whether the well is located in an other sensitive ground water area.

3. To obtain and maintain a permit to operate a motor vehicle waste disposal well located within a ground water protection area or other sensitive ground water area, the owner of the well must:

(a) Demonstrate that, at the point of injection of the well, the drinking water standards of this state are met as of the date on which the application is submitted, and will continue to be met thereafter;

(b) Submit with the application a plan that establishes the best practices for the management of the well, and agree to put into place and carry out the plan as described in the permit; and

(c) Agree to monitor injectate and sludge quality for the well.

4. As used in this section, "point of injection" means the last accessible sampling point before waste fluids are released into the subsurface environment through an injection well.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8497 Motor vehicle waste disposal wells: Conditions for granting exemption to owner of well determined to be located in other sensitive ground water area. (NRS 445A.425, 445A.465)

1. The owner of an existing motor vehicle waste disposal well determined to be located in an other sensitive ground water area may request an exemption from the provisions of NAC 445A.8491 to 445A.8499, inclusive. The director may grant an exemption if the applicant demonstrates that the motor vehicle waste disposal well is not located in an other sensitive ground water area based on the injection activities of the well, in correlation with the geological and hydrogeological conditions of the site of the well.

2. In determining whether to grant an exemption, the director shall consider, without limitation:

(a) The specific characteristics of the site of the well, including, without limitation, the:

(1) Depth to the level of ground water;

(2) Characteristics of the vadose zone;

(3) Proximity of the well to drinking water wells; and

(4) Existing water quality for the site;

(b) Whether the proposed injection fluids will degrade the waters of this state, based on site-specific information provided by the owner of the well, the expected chemical composition of the injectate and the expected volume and frequency of injection; and

(c) Such other information as the director determines necessary.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.8499 Motor vehicle waste disposal wells: Requirements for owner of well when location is changed by updated local source water assessment. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in this section, if a motor vehicle waste disposal well initially determined not to be located in a ground water protection area is subsequently determined to be located within a ground water protection area pursuant to an updated local

source water assessment, the owner of the well shall, not later than 1 year after the issuance of public notice of the change:

(a) Close the well;

(b) Obtain, pursuant to NAC 445A.8495, a permit to operate the well; or

(c) Convert the well and obtain a permit to operate the converted well.

2. Upon the request of the owner of the well, the director may approve an extension of the deadline for the closure or permitting of the well if he determines that the most efficient option for compliance with applicable state and federal requirements concerning such wells is connection to a sanitary sewer or installation of new treatment technology.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.850 Injection of fluid that degrades quality of aquifer prohibited; exemption of aquifer by director. (NRS 445A.425, 445A.465) No person may inject a fluid which degrades the physical, chemical or biological quality of the aquifer into which the fluid is injected, unless the:

1. Director, pursuant to NAC 445A.851, exempts the aquifer from this requirement; and

2. Administrator of the Environmental Protection Agency does not disapprove the exemption.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.851 Criteria for determining exemption of aquifer. The director shall consider the following criteria in determining whether to exempt an aquifer or a portion thereof from the provisions of NAC 445A.850:

1. It does not currently serve as a source of drinking water and, because of the following reasons, it does not and will not serve as a source of drinking water:

(a) It produces a mineral, hydrocarbon or geothermal fluid or an applicant for a permit for a Class II or Class III well can demonstrate to the satisfaction of the director that it contains minerals or hydrocarbons that, considering their quantity and location, are expected to be capable of commercial production;

(b) It is situated at a depth or location which makes recovery of water for drinking economically or technologically impractical;

(c) It would be economically or technologically impractical to render the water fit for human consumption; or

(d) It is located over a mining area with a Class III well and is subject to subsidence or catastrophic collapse; or

2. The total dissolved solids in the ground water is more than 10,000 milligrams per liter, and it is not reasonably expected to become a supply of drinking water.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.424)

NAC 445A.852 Identification of exempted aquifers. The director may identify by narrative description, illustrations, maps, or other means and describe in geographic or geometric terms, such as vertical and lateral limits and gradient, all aquifers or parts thereof exempted pursuant to NAC 445A.850 and 445A.851.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42405)

NAC 445A.853 Exemption terminated when well abandoned; exception. An exemption granted pursuant to NAC 445A.850 and 445A.851 for an aquifer underlying an injection well must be automatically terminated when that well is abandoned and plugged, unless that well is one of several wells for which a single permit has been issued pursuant to NAC

445A.883 and an exemption has been granted for that portion of an aquifer comprising the zone for injection for that field of wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4241)

NAC 445A.854 List of exempted aquifers. A list of exempted aquifers must be maintained for public inspection at the offices of the department.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42415)

NAC 445A.855 Specific aquifers exempted. The following proven, oil-bearing portions of the Railroad Valley aquifer in Nye County, Nevada, are, on July 22, 1987, exempt from the requirements of NAC 445A.850 and 445A.851 for activities related to a Class II well:

1. A radius of one-quarter mile around the following wells in the Eagle Springs field:

(a) John Lyddon #1 (Section 35, Township 9 North, Range 57 East, M.D.B. & M.).

(b) Draycutt Corporation #45 (Section 36, Township 9 North, Range 57 East, M.D.B. & M.).

2. A radius of one-quarter mile around the following wells in the Trap Spring field:

(a) Harper Oil Co., Trap Spring #13 (Section 26, Township 9 North, Range 56 East, M.D.B. & M.).

(b) Harper Oil Co., Trap Spring #20X (Section 22, Township 9 North, Range 56 East, M.D.B. & M.).

(c) Western Avenue Properties, Munson Ranch #24-3 (Section 24, Township 9 North, Range 56 East, M.D.B. & M.).

3. A radius of one-quarter mile around Amoco Production Co., Blackburn #12 (Section 7, Township 27 North, Range 52 East M.D.B. & M.).

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4242)

NAC 445A.856 Prohibited wells and injections; exceptions. (NRS 445A.425, 445A.465)

1. Except as otherwise provided in this section, Class I and Class IV injection wells are prohibited, and the division shall not issue any permit to construct or operate such a well.

2. Cesspools and other types of vertical injection wells or drywells used for the injection of sanitary waste, other than engineered leach fields approved by the division or local health authority, are prohibited.

3. The injection of any hazardous waste through a well is prohibited, except under conditions where injection wells are used to inject contaminated ground water that has been treated and is being injected into the same formation from which it was drawn, if the subsurface emplacement of fluids is approved by the Environmental Protection Agency, or this state, as required pursuant to the provisions for the cleanup of releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §§ 9601 et seq., or pursuant to NAC 445A.226 to 445A.22755, inclusive.

4. Motor vehicle waste disposal wells that were not operational or under construction on or before April 5, 2000, are prohibited.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.857 Prohibited wells: Report by owner or operator. Any Class I or Class IV well under construction or in operation before July 22, 1987, must be reported by the owner or operator to the director within 30 days after that date. The report must contain the following information:

1. The location of the injection well;

2. The name and address of the owner;

3. The name and address of the operator of the injection well, if the operator is a person other than the owner;

4. Drawings for the construction of the injection well which show the formations penetrated;

5. An analysis of the fluid injected into the well;
6. The date that injection was initiated;
7. The operating records showing the rate and pressure of the injection; and
8. The results of the tests performed on the well to determine its mechanical integrity.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4243)

NAC 445A.858 Prohibited wells: Abandonment and plugging; monitoring. Any Class I or Class IV injection well constructed or in operation before July 22, 1987, must be abandoned and plugged. The plan for abandoning and plugging must be submitted to and approved by the director within 90 days after the director notifies the owner or operator of such a well that it must be plugged and abandoned. The director may also require the owner or operator of such a well to:

1. Install wells to monitor the zone for injection and adjacent zones as necessary to detect the dispersion and migration of injected fluids within and from the zone for injection.
2. Monitor the levels of the fluid, quality of the water in the zone for injection and the wells monitoring the zone for injection at specified intervals.
3. Submit the results of such monitoring at the time and in the form he requires.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42435)

NAC 445A.8585 Establishment of concentration level for contaminant. (NRS 445A.425, 445A.465, 445A.500) If a maximum contaminant level has not been established for a contaminant, a concentration level for the contaminant may be established by using:

1. The naturally occurring background concentration of the contaminant; or
2. An appropriate level of concentration based on the protection of public health and safety and the environment. The appropriate level of concentration of a contaminant must be determined by the division using the Integrated Risk Information System adopted by reference pursuant to NAC 445A.2272, or an equivalent method approved by the division.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.859 Certification of documents submitted to director. All applications, reports or information submitted to the director must be signed and certified to be correct and true by the owner or the operator.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4244)

NAC 445A.860 Confidentiality of information submitted to director.

1. Any information submitted to the director pursuant to NAC 445A.810 to 445A.925, inclusive, may be claimed as confidential by the person submitting the information. If the person submitting the information wants the director to consider the information confidential pursuant to NRS 445A.665, the claim must be asserted at the time of submission by stamping or writing "confidential business information" on each page containing the information. If a claim is not made at the time of submission, the director may make the information available to the public without further notice.
2. In addition to the information described in NRS 445A.665, the director must deny a claim of confidentiality for the name and address of any applicant for a permit or any holder of a permit.
3. The confidential information must be disclosed, upon request, to the Administrator of the Environmental Protection Agency or his authorized representative, who shall maintain the disclosed information as confidential.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42445)

NAC 445A.861 Complaint of violation; investigation. A written complaint alleging a condition in violation of a provision of NAC 445A.810 to 445A.925, inclusive, or a condition or limitation of a permit may be filed with the director by any person. An investigation of the complaint must be made by the director and a written report of the investigation issued to the complainant and to the person alleged to have committed the violation.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4245)

NAC 445A.862 Enforcement of regulations.

1. It is not a defense in an action to enforce the provisions of NAC 445A.810 to 445A.925, inclusive, for a holder of a permit to assert that halting or reducing the permitted activity would have been necessary to comply with the conditions of the permit.
2. Any violation of NAC 445A.810 to 445A.925, inclusive, is grounds for an action for enforcement and the suspension, modification or revocation of a permit or the denial of the renewal of a permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42455)

Permits for Underground Injection

NAC 445A.865 Purpose of issuing permits; no vested right acquired by holder. The purpose of issuing permits is to protect the public health and safety and the general welfare of the people of this state. Any permit issued pursuant to NAC 445A.810 to 445A.925, inclusive, is a revocable privilege and the holder of such a permit does not acquire thereby any vested right.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4248)

NAC 445A.866 Effect of permit issued by Environmental Protection Agency. Upon delegation to the State of Nevada by the Federal Government of primary responsibility for enforcement of the Underground Injection Control Program, permits issued by the Environmental Protection Agency for injection wells within this state become state permits and are administered by the director for 5 years after the date of issuance of the original permit from the Environmental Protection Agency. No fee may be assessed for these permits until each is due for renewal.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42485)

NAC 445A.867 Application for permit. (NRS 445A.425, 445A.465) Except as otherwise provided in NAC 445A.8491 to 445A.8499, inclusive, an applicant for a permit to inject fluids must satisfy the director that the underground injection will not endanger any source of drinking water. An application for a permit must be filed within 180 days after July 22, 1987, for the operation of an injection well which is existing on that date and does not have a permit. Each application for a permit must be signed by the owner or, if the owner does not operate the well, the operator of the well and must contain the following information:

1. The name of the facility.
2. The name and address of the owner.
3. The name and address of the operator, if different than the owner.
4. A description of the location of each injection well by the quarter-quarter section, section, township and range, and latitude and longitude.
5. A map of the location of the facility, preferably a topographic map prepared by the United States Geological Survey, extending at least 1 mile beyond the boundaries of the facility, locating each injection well for which a permit is sought and the area of review. The map must show, within the area of review, the number, location and type of all injection wells, producing

wells, abandoned wells, surface bodies of water, surface and subsurface mines, quarries, public and private systems to supply water and other pertinent features on the surface.

6. A plan for corrective action, as required pursuant to NAC 445A.899, for each injection well within the area of review which penetrates the zone for injection, but is not correctly completed or plugged.

7. A narrative report, geologic cross section and isopach map in sufficient scale to detail the local geology and hydrology. The information should be sufficient to show the geologic formations, structural features and concentration of total dissolved solids for each formation, zone for injection and confining zone.

8. The plans and drawings for construction showing the details of the casing and cementing, including the size of the hole, type of casing and type and grade of cement.

9. The drilling log for each production or injection well owned or operated by the applicant which is located within the area of review.

10. The proposed operating data, including:

(a) The average and maximum daily rates of injection and the volume of the fluid injected;

(b) The average and maximum pressures of the injection; and

(c) The source of the fluid injected and an analysis of its physical, chemical and biological characteristics.

11. A chemical analysis, if available, of the fluid in the receiving formation to ensure compatibility with the injectate, and an analysis of the hydraulic conductivity of the receiving formation.

12. The proposed procedures for injection, including additives to or storage and pretreatment, if any, of the fluid injected, the use of the well, the planned standard practices for stimulation of the well and the planned schedule for workover.

13. A certificate that the applicant has ensured, through a performance bond or other appropriate means, the resources necessary to plug and abandon the well.

14. A plan for plugging and abandoning the well as described in NAC 445A.923.

15. Any other information required by the director to ensure that the proposed operation will not degrade an underground source of drinking water. That information may include a plan for monitoring the elevation or quality of ground water surrounding the zone for injection.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.868 Information required in application for Class II well. An applicant for a permit for a Class II well must include in his application the following information concerning the injection formation:

1. The fluid pressure;
2. The estimated fracture pressure; and
3. The physical and chemical characteristics of the injection zone.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42495)

NAC 445A.869 Modification of information required in application for Class V well. The director may modify the information required in an application for a permit for a Class V well for good cause and upon determining that additional or less information will ensure that a proposed injection well will not degrade an underground source of drinking water.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.425)

NAC 445A.870 Information required in application for Class III well that necessitates exemption for aquifer. For Class III wells, an applicant for a permit which necessitates an exemption for the aquifer must furnish the information necessary to demonstrate that the aquifer is expected to produce a mineral or hydrocarbon. The director shall consider information in the

plan for mining for the proposed project, such as a map and general description of the zone for mining, general information on the mineralogy and geochemistry of the zone for mining, an analysis of the amenability of the zone for mining to the proposed method of mining and a schedule for the planned development of the zone for mining.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42505)

NAC 445A.871 Bond required.

1. Except as otherwise provided in subsections 2 and 3, an applicant for a permit for an injection well must provide evidence that he has obtained a good and sufficient bond in favor of the state:

(a) In a sum equal to the estimated cost contained in the plan for the plugging and abandonment of the well, conditioned that the well upon abandonment be plugged pursuant to the plan for plugging and abandonment of the well; or

(b) Upon approval of the director, in a sum of not less than $50,000 to cover all injection wells being drilled or to be drilled by him in this state.

2. An applicant who has deposited a bond with the Federal Government for a well drilled on federal land need not comply with the provisions of this section but must furnish the director with a copy of that bond.

3. For Class V wells, other than geothermal injection wells associated with the production of power, the director, upon receipt of adequate proof of financial responsibility, may waive or reduce the bonding requirements of this section.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4251)

NAC 445A.872 Fees. (NRS 445A.425, 445A.430)

1. A nonrefundable fee must accompany each application for a permit for an injection well. The applicable fee is:

Type of Injection Well	Application Fee	Fee for Annual Services, Major Modifications or Renewal of Permit
Class II, oil and gas	$4,000 plus $500 for each well	$2,000 plus $150 for each well
Class V, geothermal injection wells associated with the production of energy		
Producing 25 megawatts or more	$5,000 plus $500 for each well	$3,000 plus $150 for each well
Producing 10 megawatts or more but less than 25 megawatts	$4,000 plus $500 for each well	$1,500 plus $150 for each well
Producing less than 10 megawatts	$3,000 plus $500 for each well	$1,000 plus $150 for each well

Type of Injection Well	Application Fee	Fee for Annual Services, Major Modifications or Renewal of Permit
Class V, geothermal injection associated with space heating		
Discharging less than 250,000 gallons daily	$700	$250
Discharging 250,000 gallons or more daily	$1,500	$500
Class V, injection wells associated with remediation, treatment of waste or experimental technology	$2,000 plus $500 for each well	$1,000 plus $150 for each well
Class V, injection wells associated with mining pit dewatering	$4,000 plus $500 for each well	$2,000 plus $150 for each well
Class V, all others	$500 plus $100 for each well	$150 plus $25 for each well
General Permit	No fee	

2. A Class III well will be charged a fee for a permit for the actual cost of the review of the application calculated at a rate of $50 per hour for the time spent for the review. The fee for renewal of a permit for a Class III well is $750.

3. A fee for the renewal of a permit or for major modifications, if applicable, must be paid in addition to the fee for annual services.

4. Except as otherwise provided in NAC 445A.885, the fee for annual services must be:

(a) Submitted to the division on or before July 1; and

(b) Paid in advance for each subsequent year during the life of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 9-19-90; R042-01, 10-25-2001)

NAC 445A.873 Notification whether application complete; submission of additional information. The permit for an injection well may not be issued until the director determines that the application is complete and the applicable fee has been paid. The director shall notify the applicant within 30 days after receipt of an application as to whether the application is complete, but only with respect to the submittal of the information, not the adequacy of the information. If an applicant becomes aware that he failed to submit any relevant information or submitted incorrect information in an application, he shall promptly submit such facts or information to the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4252)

NAC 445A.874 Preparation of documents by director when application is complete. Once an application for a permit is complete, the director shall prepare:

1. A draft of the permit and a tentative exemption for the aquifer, if required, or a notice of intent to deny the application.

2. A statement, or a fact sheet if the proposed injection well is determined to be a major facility, which briefly describes the derivation of the conditions in the draft of the permit and the reasons for them or, in the case of a notice of intent to deny, the reasons supporting the tentative decision.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42525)

NAC 445A.875 Public notice of tentative action on application for permit. A public notice for each draft of a permit for an underground injection well, tentative exemption for an aquifer, if required, or intent to deny an application for a permit must be circulated by the director at least 30 days before the issuance of the permit, exemption or denial, in a manner designed to inform interested and potentially interested persons. The notice must be:

1. Published in a daily newspaper of general circulation within the geographic area of the proposed injection well; and

2. Mailed to the applicant, any person or group requesting notice, the division of minerals, the health division of the department of human resources, the division of water resources of the department and the administrator of the office of historic preservation of the department of cultural affairs.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4253)

NAC 445A.876 Contents of public notice. The public notice must include at least the following:

1. The name, address and telephone number of the department;

2. The name and address of the applicant;

3. A brief description of the proposed facility;

4. A statement of the tentative determination to issue or deny a permit for the injection described in the application;

5. The boundaries and characteristics of the aquifer for which a tentative exemption, if required, is being considered;

6. A brief description of the procedure for:

(a) The formulation of a final determination, including a 30-day period during which interested persons may submit to the director written comments on the draft or the tentative exemption or comment on that determination; and

(b) Requesting a public hearing, if one has not been scheduled; and

7. The address and phone number at which interested persons may obtain further information or inspect and copy the draft of the permit, the statement and fact sheet described in NAC 445A.874, application for the permit and other relevant forms or documents.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42535)

NAC 445A.877 Public hearing and comments concerning tentative action on application for permit; notice of hearing.

1. The applicant or any interested person may:

(a) Request a public hearing on any application for a permit. If a hearing has not already been scheduled, an interested person may request a hearing during the 30-day period for comments. A request for a public hearing must be in writing and must state the nature of the issues to be raised in the hearing.

(b) Within 30 days after the notice is circulated pursuant to NAC 445A.875, submit to the director written comments on the draft of the permit or the tentative exemption of the aquifer.

2. The director shall hold a public hearing if he determines that, on the basis of any requests for a hearing, there is a significant degree of public interest in the matter or may hold a public hearing on his own motion.

3. The director shall publish a notice of the hearing at least 30 days before the hearing in the manner prescribed in NAC 445A.875. In addition to the information prescribed in NAC 445A.876, the notice must contain the following:

(a) The date of any previous notices relating to the permit;

(b) The date, time and place of the hearing; and

(c) A brief description of the nature and purpose of the hearing and the applicable rules and procedures.

4. Any person may submit at the hearing an oral or written statement and data concerning the draft of the permit or the tentative exemption of the aquifer. The director may set reasonable limits upon the time allowed for oral statements, and the submission of statements in writing may be required. The period for comment required in subsection 6 of NAC 445A.876 is automatically extended to the close of the hearing on that matter.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4254)

NAC 445A.878 Statement by director responding to comments concerning tentative action on application for permit. At the time a final permit and exemption for an aquifer, if required, is issued, the director shall also issue a statement responding to the comments received by him on the matter. A copy of the statement must be sent to the applicant and persons submitting comments, and must be made available for inspection by the public. This statement must:

1. Specify which provisions, if any, of the draft of the permit and exemption for the aquifer have been changed in the final permit or exemption, and the reasons for the change;

2. Briefly describe and respond to all significant comments on the draft of the permit and tentative exemption for the aquifer which were submitted during the period for public comment or at the public hearing; and

3. Include information that any person aggrieved by a decision of the director may appeal that decision as provided in NRS 445A.605.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42545)

NAC 445A.879 Period for issuance or denial of permit. Within 30 days after the end of any period for public comment regarding the issuance or renewal of a permit or the close of the public hearing, the director shall either issue the final permit or provide written notice to the applicant why the final permit will not be issued at that time.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4255)

NAC 445A.880 Expiration of permit. A permit expires 5 years after the date of issuance except that an earlier date may be specified by the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42555)

NAC 445A.881 Transfer of permit. A permit may be transferred to a new owner or operator upon application to the director containing assurance that the new owner or operator has complied with the requirements regarding financial responsibility prescribed in NAC 445A.871 at least 30 days before the transfer is made. Until notice is given by the director that a permit is transferred, the owner or operator indicated in the most current permit is responsible for complying with NAC 445A.810 to 445A.925, inclusive.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4256)

NAC 445A.882 Renewal of permit. Upon application and payment of a renewal fee to the director at least 180 days before the date of expiration of the permit, the renewal of a permit

must be reviewed by the director. The director shall reissue, revise or deny the renewal of permit and give written notice of his action to the holder of the permit before the date of expiration of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42565)

NAC 445A.883 Permit for certain groups of wells. A group of similarly designed injection wells located on a single parcel of property, owned or operated by the same applicant, and injecting the same class of fluids may be issued a permit as a single facility, except that the fee for the application is as prescribed in NAC 445A.872 plus $100 for each additional well. The total fee must be paid before the director may accept the application as complete.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4257)

NAC 445A.884 Single permit for facilities otherwise required to obtain additional permits. A single permit may be issued by the director for a facility that is required to obtain additional permits because of on-site treatment or storage of fluids for injection. Fees for such a permit must be based on each separate activity required to have a permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42575)

NAC 445A.885 Modification, revocation, suspension, cancelation or denial of permit. (NRS 445A.425, 445A.465)

1. In addition to the grounds specified in NRS 445A.600, the director may modify, revoke, suspend or cancel a permit during its term or deny the renewal of a permit upon a determination by the director that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by modification, revocation, suspension or denial of the permit.

2. If the activity for an injection well requiring a permit ceases, the holder of the permit may request that the director cancel the permit, if the holder is in compliance with all the conditions set forth in the permit and the conditions set for the closure of the site in question, including well plugging and abandonment. The holder of the permit may request permission to keep the injection well open to monitor the well or for any other purpose. The holder of a permit who submits a request to keep an injection well open must provide with the request legal and financial assurance pursuant to NAC 445A.871 that the well will ultimately be plugged and abandoned in accordance with all applicable state and federal laws and regulations.

3. The holder of a permit for an injection well may request that the director suspend the permit for the well if injection has currently ceased at the well but may be required for projects in the future, including, without limitation, remediation projects. During the period of the voluntary suspension of the permit, the holder of the permit is not required to pay the fee for annual services for the permit. The holder of a voluntarily suspended permit may request that the director activate the permit without reapplying for a new permit if the request is made before the date on which the permit otherwise would have expired if it had not been voluntarily suspended. If the holder of a permit voluntarily suspended pursuant to this subsection does not request reactivation of the permit before the expiration of the permit, the holder of the permit must apply for a new permit before he may again use the well as an injection well.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.886 Submission of information requested by director. The holder of a permit shall furnish to the director, within a time specified by the director, any information which may be requested by him to determine whether cause exists for modifying, suspending or

revoking the permit or to determine whether the holder is complying with the conditions of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42585)

NAC 445A.887 Permit for Class V well may contain less stringent requirements. The director may authorize by an individual or general permit a Class V well to have requirements less stringent for its area of review, technical requirements for its construction, mechanical integrity, operation, monitoring and reporting than the requirements prescribed by NAC 445A.810 to 445A.925, inclusive, if the reduction in requirements does not result in an increased risk of movement of fluids from the zone for injection.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4259)

NAC 445A.888 Inclusion in permit of schedule for compliance.

1. The permit may, when appropriate, specify a schedule for compliance with NAC 445A.810 to 445A.925, inclusive, and chapter 445A of NRS.

2. The schedule for compliance must require compliance as soon as possible and in no case later than 1 year after the effective date of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42595)

NAC 445A.889 Notice to director of failure to comply with terms of permit.

1. Except as otherwise provided in subsection 2, if for any reason the holder of a permit does not comply with or will be unable to comply with the conditions, requirements and limitations specified in the permit, the holder shall provide the director with the following written information within 5 days after becoming aware of his inability to comply:

(a) A description of the condition, requirement or limitation with which he cannot comply;

(b) The period of the noncompliance including exact dates and times, or the anticipated time the noncompliance is expected to exist; and

(c) A description of any action being taken to reduce or eliminate the probability of its recurrence.

2. If the noncompliance with a condition, requirement or limitation specified in the permit has caused or may cause migration into or between underground sources of drinking water, or has introduced or may introduce a contaminant which endangers an underground source of drinking water, or otherwise endangers public health or the environment, the holder of the permit shall notify the director orally within 24 hours after becoming aware of the circumstances. The holder shall also file the written information with the director as required in subsection 1.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.426)

NAC 445A.890 Issuance of temporary permit. (NRS 445A.425, 445A.465, 445A.485)

1. The director may temporarily permit a specific underground injection of fluids if:

(a) An imminent and substantial danger to the public health or the environment will result unless the temporary permit is granted; or

(b) A substantial delay in the operation of an oil, gas or geothermal production facility which has a permit for an injection well will occur unless a temporary permit is granted, the timely application for a permit could not practicably have been made and the injection will not result in the movement of fluids out of the zone for injection previously permitted.

2. The director may issue a temporary permit for a well used to inject contaminated ground water that has been treated and is being reinjected into the same formation from which it was drawn as part of a cleanup plan approved by the director or the Environmental Protection Agency in cases where federal approval is required.

3. The director may issue a temporary permit for a pilot project or a test of limited duration if the director determines that the pilot project or test is necessary to determine the feasibility of a project or that the limited duration of the pilot project or test does not justify the use of time and financial resources to obtain a permit to inject fluids. The director may not issue such a temporary permit if he determines that the pilot project or test raises imminent environmental concerns.

4. At the time of application for a temporary permit pursuant to this section, the director may request and the applicant shall provide such reasonable data and other information as the director determines to be necessary to evaluate the application. Within 60 days after the date on which he receives such an application, the director shall:

(a) Approve the application and issue the temporary permit; or

(b) Disapprove the application and inform the applicant of the reasons for the disapproval.

5. Any temporary permit issued pursuant to this section is valid only as long as necessary to prevent the hazard, and in no case longer than 90 days. If an application for a permit has been filed with the director before the date of expiration of the temporary permit, the period the temporary permit is valid may be extended to the date the application is approved or disapproved.

6. The director shall condition the temporary permit in any manner necessary to ensure that the injection will not degrade any underground source of drinking water.

7. Within 10 days after the issuance of a temporary permit, the director shall give public notice pursuant to NAC 445A.875, and provide the opportunity for a public hearing.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87; R042-01, 10-25-2001)

NAC 445A.891 General permits: Eligible types of wells. (NRS 445A.425, 445A.465) The director may issue a general permit for the following types of Class V wells:

1. Geothermal wells using a closed loop that return fluid to the geothermal aquifer used for domestic heating and inject no more fluid than an annual average of 1,800 gallons per day.

2. A well with a closed loop used to inject the water used for heating or cooling by a heat pump.

3. Drainage wells for swimming pools having a capacity of 100,000 gallons or less.

4. Storm water drainage wells used to drain the runoff from a storm.

5. Wells used to inject a mixture of water and sand, mill tailings or other solids into subsurface mines.

6. Wells used to inject remediation enhancement products at remediation sites.

7. Wells used to inject fluid that has passed through various interceptors designed to collect oil, grease and sediment. The holder of a permit issued pursuant to this section for such a well shall:

(a) Conduct periodic injectate sampling to ensure that contaminants, including, without limitation, gasoline, solvents and metals, do not enter the system; and

(b) Submit and carry out a best management practices plan.

8. Other shallow injection wells from a commercial or institutional operation that have a consistent, noncontaminated waste stream, including, without limitation, injection wells for industrial process waste and drainage, laundromats, food processing and car washes.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.8915 General permits: Procedures to request coverage for Class V well. (NRS 445A.425, 445A.465)

1. A person may request coverage for a Class V well under a general permit by submitting a notice of intent to operate the well as an activity for which a general permit has been issued. A notice of intent must be submitted on a form provided by the director and include the required fee as set forth in NAC 445A.872 and sufficient information to allow the director to make a determination of eligibility, including:

(a) The name and address of the applicant;

(b) The exact location of the Class V well to be covered under the general permit;

(c) The nature and quality of the injection fluids to be injected by the Class V well;

(d) The volume and frequency of the proposed injections; and

(e) Such other information as the director determines necessary to evaluate the application and the impact that approval of the application will have on the environment.

2. If the director approves the application, the director shall send to the applicant a letter of authorization that acknowledges coverage of the Class V well under the general permit. A letter of authorization may include such additional requirements as the director determines appropriate for the operation of the Class V well based on the specific characteristics of the site of the well to be covered by the general permit.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

NAC 445A.892 General permits: Description of geographic area. A general permit may be written to cover a category of injection well described in NAC 445A.891, except those covered by individual permits, within a geographic area. The area must be described in the permit and must conform to existing hydrological or political boundaries such as:

1. The land lying over a specific aquifer; or
2. The boundaries of a city, county or state.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42615)

NAC 445A.893 General permits: Regulation of category of wells. A general permit may be written to regulate, within the area described in the permit, a category of injection wells if all of the wells:

1. Involve the same or substantially similar types of injection;
2. Inject the same types of fluids;
3. Require the same limitations for the permit and operating conditions;
4. Require the same or similar monitoring; and
5. In the opinion of the director, are more appropriately controlled under a general permit than under individual permits.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4262)

NAC 445A.894 General permits: Requiring holder to obtain individual permit; petition for exclusion. (NRS 445A.425, 445A.465, 445A.480) The director may require any person authorized to inject by a general permit to apply for and obtain an individual permit. If an individual permit is issued to a person holding a general permit, the general permit is automatically terminated on the effective date of the individual permit. If the holder of a general permit is required to obtain an individual permit, the holder must obtain that individual permit in accordance with the procedures set forth in NAC 445A.269. An interested person or a holder of a general permit may apply for a petition for exclusion from the general permit pursuant to NAC 445A.270.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.895 General permits: Public notice and opportunity for hearing. Public notice and the opportunity for a hearing must be provided before the issuance of a general permit. The notice must be given and the hearing conducted pursuant to NAC 445A.874 to 445A.878, inclusive.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4263)

NAC 445A.896 General permits: Modification, suspension or revocation. The director may modify, suspend or revoke a general permit pursuant to NAC 445A.885 as if it were an individual permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42635)

NAC 445A.897 Area of review: Definition. An area of review, required in the application for a permit for each injection well, consists of a circle circumscribed around the well with a fixed radius of 1 mile. This is the surface of the land lying over the zone of endangering influence. If an injection well is drilled at an angle greater than 1E deviation from vertical, the area of review is the area within 1 mile of the locations of both the surface and bottom hole.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4264)

NAC 445A.898 Area of review: Increase or decrease by director. The director may require that a greater or lesser area of review be prescribed in an application for a permit. This must be based upon:

1. The chemical, physical and biological characteristics of the fluids to be injected;
2. The characteristics of the formation into which the fluids will be injected;
3. Mathematical models, if appropriate, for computing pressure and changes in concentration in the injected formation;
4. The population in the area; and
5. The uses of the ground water and the existence of water wells.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42645)

NAC 445A.899 Identification of known wells and analysis of pressure; plan for corrective action. An applicant for a permit for an injection well shall identify all known wells within the area of review and may be required to submit an analysis of the build-up of pressure for those wells. If a well penetrates the zone for injection and is improperly completed, plugged or abandoned, the applicant shall submit a plan for corrective action consisting of such steps or modifications as are necessary to prevent movement of fluid into underground sources of drinking water. The plan for corrective action must include:

1. A description of each type of well requiring corrective action such as a production, injection, dry or irrigation well or a well supplying water.
2. The depth of the well.
3. The status of the well such as active, inactive, plugged or abandoned. If abandoned, the date of last use and date of abandonment.
4. The name and address of the person responsible for the well.
5. The date the well was drilled and the dates of significant workovers.
6. The results of all logs and tests performed on the well.
7. Information concerning the construction of the well such as a description of the casing, tubing, packer and cementing.
8. The intervals between perforations or screens.
9. The distance of the well from the injection well.
10. A description of the corrective action to be taken.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4265)

NAC 445A.900 Action by director on plan for corrective action.

1. If a plan of corrective action has been determined by the director to be adequate, the director shall incorporate it into the permit as a condition.
2. If the director's review of the plan indicates that the plan is inadequate pursuant to NAC 445A.899, the director shall require the applicant to revise the plan, prescribe a plan for

corrective action and a schedule for compliance as a condition of the permit or deny the application.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.42655)

NAC 445A.901 Applicant to report improperly completed, plugged or abandoned well; correction of condition.

1. If an improperly completed, plugged or abandoned well is not under the applicant's control, the applicant shall:

(a) File a complaint with the appropriate governmental agency requesting the agency to take action to have the condition of the well corrected; or

(b) Take appropriate corrective action approved by the director at his expense.

2. The correction of any condition required for a well must be completed before operation of the new injection well begins.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4266)

NAC 445A.902 Minor modifications to permit. (NRS 445A.425, 445A.465) With the consent of the holder of a permit issued pursuant to NAC 445A.810 to 445A.925, inclusive, and without public notice, the director may make minor modifications to the permit to:

1. Correct typographical errors.

2. Increase or decrease the frequency of monitoring, reporting or sampling. The director may modify the permit to decrease the frequency of monitoring, reporting or sampling only if he has determined that the injection process has not changed and the historic data demonstrates such consistency that continued monitoring will not provide additional, relevant information.

3. Change an interim compliance date in a schedule of compliance if the new date is not more than 120 days after the date specified in the permit and does not interfere with attainment of the final compliance date requirements.

4. Allow for a change in ownership or operational control of a facility if:

(a) The director determines that no other change in the permit is necessary;

(b) The holder of the permit and the person to whom ownership or operational control will be transferred have entered into a written agreement containing a specific date for the transfer of the responsibility, coverage and liability required for the facility under the permit; and

(c) A copy of the written agreement has been provided to the director.

5. Change the quantity or type of fluids injected that are within the capability of the facility as permitted if, in the judgment of the director, the change in quantity or type of fluid will not interfere with the operation of the facility or its ability to meet the conditions prescribed by the permit for the operation of the facility and will not change the classification of the facility.

6. Change requirements relating to construction if the change in requirements complies with the requirements of this section and NAC 445A.905 to 445A.925, inclusive.

7. Amend a plan that has been updated pursuant to subsection 2 of NAC 445A.923 for plugging and abandoning an injection well.

(Added to NAC by Environmental Comm'n by R042-01, eff. 10-25-2001)

Construction, Operation, Monitoring and Abandonment

NAC 445A.905 Construction prohibited without permit. The construction of an injection well for which a permit is required may not begin until the permit has been issued.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4268)

NAC 445A.906 Compliance with permit; minimization or correction of adverse impact on environment. The holder of a permit shall:

1. At all times maintain in good working order and operate as efficiently as possible all facilities, devices or systems installed or used by the holder to achieve compliance with the terms and conditions of the permit; and

2. Take all reasonable steps to minimize or correct any adverse impact on the environment resulting from his failure to comply with the terms and conditions of the permit.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42685)

NAC 445A.907 Power of director to suspend or halt construction or operation. The director may suspend or halt construction or operation of an injection well upon receipt of information that a contaminant which is present in or likely to enter a public water supply may present an imminent or substantial danger to the public health or safety.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4269)

NAC 445A.908 Location and construction of well.

1. An injection well must be:

(a) Situated on a well-drained site not subject to inundation by a flood with a recurrence interval of 100 years.

(b) Sited in such a way that it injects into a formation which is separated from any underground source of drinking water by a confining zone that is free of known open faults or fractures within the area of review.

(c) Easily accessible for maintenance, repair, testing, or such other attention as may be necessary.

(d) Separated by a minimum horizontal distance of 50 feet from any water-tight conduit, such as a cast-iron pipe which carries sewage or other liquid wastes.

(e) Separated by a minimum horizontal distance of 100 feet from any septic tank, drain field or other facility for the collection or disposal of other liquid waste.

(f) Separated by a minimum horizontal distance of 10 feet from the boundary of any adjoining property.

(g) Cased from the finished surface to the top of the zone for injection and constructed so that no contamination can occur as a result of conditions on the surface surrounding the well.

(h) Cemented to prevent movement of fluid into or between underground sources of drinking water. The casing and cement used in the construction of each injection well must be designed to endure for the life expectancy of the well.

2. All injections into an injection well must be through tubing set on a mechanical packer, unless another means is approved by the director. The packer must be set between the top of the zone for injection and the bottom of the next highest underground source of drinking water and as close as possible to the top of the injected interval.

3. The wellhead must be equipped above the ground with valves for the observation of pressure for each annular opening of the well and for the tubing.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42695)

NAC 445A.909 Submission and contents of notice of completion; approval or denial of permission to initiate injection.

1. Within 30 calendar days after completion of a new injection well, the holder of a permit shall furnish the director with a notice of completion containing the following information:

(a) Plans and drawings of the completed well as constructed.

(b) Copies of appropriate logs and other tests conducted during construction of the well and a descriptive report interpreting the results of that portion of the logs and tests related specifically to the zone for injection and adjacent formations.

(c) A chemical analysis of the fluid in the zone for injection.

(d) The results of deviation checks conducted on a well which is constructed by drilling a pilot hole and enlarging that hole by reaming or other methods.

2. The deviation checks must be at sufficiently frequent intervals to ensure that vertical avenues for the movement of fluids in the form of diverging holes are not created during drilling.

3. The director shall review the information submitted pursuant to subsection 1 and NAC 445A.910, and shall notify the holder of the permit in writing within 30 days after receipt of that information whether:

(a) Approval is granted to initiate injection;

(b) The information submitted differs substantially from previously submitted information and an additional 30 days for review is required before the director will make a decision; or

(c) Permission to initiate injection is denied.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.427)

NAC 445A.910 Factors for determining logging and testing requirements for Class II wells. To determine the logging and testing requirements for Class II wells, the director will consider:

1. For surface casing intended to protect underground sources of drinking water in areas where the lithology has not been determined:

(a) Electric and caliper logs before casing is installed; and

(b) A cement bond, temperature or density log after the casing is set and cemented.

2. For intermediate and long strings of casing intended to facilitate injection:

(a) Electric, porosity and gamma ray logs before the casing is installed;

(b) Fracture finder logs; and

(c) A cement bond, temperature or density log after the casing is set and cemented.

(Added to NAC by Environmental Comm'n, eff. 10-21-87)—(Substituted in revision for NAC 445.42705)

NAC 445A.911 Limitations on location and pressure of injection; authorizing fracturing in zone for injection.

1. The pressure for injection at the wellhead of an injection well must not exceed that which is calculated to initiate new fractures or propagate existing fractures in the zone for injection or the confining formation between the zone for injection and underground sources of drinking water.

2. The pressure for injection must be calculated by using the formula:

$$Pm=(0.733 - 0.433\ Sg)d$$

"Pm" means the pressure of injection at the wellhead in pounds per square inch.

"Sg" means specific gravity of the injected fluid (unitless).

"d" means the depth of the injection, in feet, measured from the top of the interval for injection.

3. Fracturing in the zone for injection may be authorized by the director if the holder of the permit can demonstrate that the fracturing would not result in the movement out of the zone for injection of injected fluids or fluids in the formation. The holder of the permit shall demonstrate the mechanical integrity of the injection well after such a fracturing operation and before commencing the injection of fluids.

4. In no case may the pressure of injection cause the movement into an underground source of drinking water of injected fluids or fluids in the formation.

5. No injection may occur between the outermost casing protecting underground sources of drinking water and the well bore.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4271)

NAC 445A.912 Analysis of injected fluid. The chemical, physical and biological nature of the injected fluid must be analyzed with sufficient frequency to yield representative data on its characteristics. When requested by the director, or at any time the injected fluid is modified to the extent that the analysis required by paragraph (c) of subsection 10 of NAC 445A.867 is incorrect or incomplete, a new analysis must be made and the results sent to the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42715)

NAC 445A.913 Frequency of monitoring. The pressure of injection, pressure of the annular space between the tubing and the casing, rate of flow and cumulative volume of injected fluid must be monitored at least:

1. Once each week for the disposal operations of a Class II well.
2. Twice each month for Class III wells.
3. Once each month for enhanced recovery of a Class II well.
4. Once each day for injection of liquid hydrocarbons and the injection for withdrawal of stored hydrocarbons for a Class II well.
5. As required by the permit for the operation of a Class V well.

(Added to NAC by Environmental Comm'n, eff. 7-22-87; A 10-21-87)—(Substituted in revision for NAC 445.4272)

NAC 445A.914 Placement of wells for monitoring Class III wells. For Class III wells the director may require that monitoring wells be completed in the zone for injection and in any underground source of drinking water above the zone for injection which could be affected by the operation of the mine. The wells must be located to detect any movement of injected fluids, by-products of the mining process or fluids in the formation outside the mining area. If the operation may be affected by subsidence or catastrophic collapse, the monitoring wells must be located so that they will not be physically affected by those events.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42725)

NAC 445A.915 Analysis of wells for monitoring Class III wells. Wells used to monitor the movement of injected fluids or fluids in or around a Class III injection well must be sampled and analyzed at least once each month.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4273)

NAC 445A.916 Tests for mechanical integrity: Frequency. Tests to demonstrate mechanical integrity must be conducted at least once each 5 years for the life of an injection well. The director may require such tests more frequently if conditions of the operation so warrant. The holder of a permit shall notify the director at least 45 days before the date upon which a test for mechanical integrity is to be performed.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42735)

NAC 445A.917 Tests for mechanical integrity: Methods for evaluating absence of leaks. One of the following methods must be used in the test for mechanical integrity to evaluate the absence of significant leaks in the casing, tubing or packer:

1. Monitoring the pressure on the annulus between the casing and tubing after an initial pressure test.
2. A test for pressure with liquid.
3. A survey using a radioactive tracer.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4274)

NAC 445A.918 Tests for mechanical integrity: Methods for determining absence of movement of fluid. One of the following methods must be used in the test for mechanical integrity to determine the absence of significant movement of fluid into an underground source of drinking water through a vertical channel adjacent to the well bore:

1. The results of a survey of the temperature or noise of a well.
2. Records of cementing which demonstrate the presence of adequate cement behind the casing to prevent migration of fluid.
3. In an appropriate hydrogeologic setting, a survey using a radioactive tracer, which must be used in conjunction with at least one of the other alternatives.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42745)

NAC 445A.919 Tests for mechanical integrity: Alternative methods. The director may authorize the use of a test to demonstrate mechanical integrity other than those listed in NAC 445A.917 and 445A.918 upon publication of the alternative method in the Federal Register and the written approval of the Administrator of the Environmental Protection Agency.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4275)

NAC 445A.920 Loss of or failure to demonstrate mechanical integrity. If the holder of a permit or the director finds that an injection well fails to demonstrate mechanical integrity during a test or a loss of mechanical integrity becomes evident during operation, the operation of the injection well must be stopped immediately and may not be resumed until approved by the director.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42755)

NAC 445A.921 Filing reports from monitoring and results of periodic tests.

1. Reports containing information obtained by monitoring as required by the permit must be filed with the director at least quarterly.
2. The results of the testing for mechanical integrity of an injection well and any other periodic testing required by the director must be filed with the first quarterly report after the completion of the tests.

(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4276)

NAC 445A.922 Retention of records from monitoring.

1. The holder of a permit shall retain records of all information resulting from the monitoring required by the permit including:

(a) The records of the calibration and maintenance of the injection well and all original, continuous charts from recording instruments;
(b) Copies of all reports required by the permit;
(c) Records of all data used to complete the application for the permit; and
(d) The reports of the nature and composition of all injected fluids.

2. The records enumerated in paragraphs (a), (b) and (c) of subsection 1 must be retained for at least 3 years after the date the sample or measurement is taken or the report or application is made. This period may be extended by the director. The records enumerated in paragraph (d) of subsection 1 must be retained for 5 years after the completion of any procedures for plugging and abandonment. The director may require the owner or operator to deliver the records to his office at the conclusion of the period for retaining the records.
3. The records of information resulting from monitoring must include:

(a) The date, exact place and time of the sampling or measurement;
(b) The name of the person who performed the sampling or measurement;
(c) The date the analysis was performed;

(d) The name of the person who performed the analysis; and
(e) The results of each analysis.
(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42765)

NAC 445A.923 Plugging and abandonment: Plan; notice; procedure; certification. (NRS 445A.425, 445A.465, 445A.500)
1. If the plan for plugging and abandoning an injection well is determined by the director to be adequate, it will be incorporated as a condition to the permit.
2. The plan for plugging and abandoning an injection well must contain an estimate, based on the current and prevailing economy, of the cost of plugging each well for which the application for the permit is made. The applicant shall certify in the plan that the estimate of the cost will be reviewed annually during the life of the permit, and that the bond required pursuant to NAC 445A.871 will be increased when the review indicates that the cost of plugging is more than 10 percent greater than the original or most recent estimate of the cost.
3. The holder of a permit, or any person planning to abandon or close any injection well, including, without limitation, shallow Class V wells such as motor vehicle waste disposal wells, shall notify the director of the intent of the holder or person to abandon or close the injection well at least 30 days, or in the case of a newly drilled injection well at least 5 working days, before the abandonment or closure of the well.
4. Before abandonment, an injection well must be plugged with cement in a manner which will not allow the movement of fluids into or between underground sources of drinking water.
5. All cavities in the well bore not plugged with cement must be filled with heavy drilling fluids in a state of static equilibrium with the weight of the fluid equalized from top to bottom.
6. Upon completion of the procedure for the plugging and abandonment of an injection well, the holder of a permit shall certify to the director that the condition of the permit relating to plugging and abandonment has been satisfied.
(Added to NAC by Environmental Comm'n, eff. 7-22-87; A by R042-01, 10-25-2001)

NAC 445A.924 When well is deemed abandoned. An injection well with casing shall be deemed to be abandoned if its use has been discontinued for at least 1 year. An injection well in which a casing has not been run and for which drilling operations have ceased for at least 30 days shall also be deemed to be abandoned. Any other well shall be deemed abandoned if its use has been discontinued for at least 1 year or if it is in such disrepair that it cannot be used for its intended purpose.
(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.42775)

NAC 445A.925 Plugging of well determined to be abandoned.
1. If the director determines that a well is abandoned, he may order it to be plugged in accordance with the requirements of the approved plan for abandonment. If no plan for abandonment has been approved, the director may order the well plugged in a manner which will prevent movement of any injected fluid or fluid in the formation.
2. In the case of a temporarily idle injection well or an unfinished injection well, the director may not require that the well be plugged if the applicant or holder of the permit shows:
(a) Good cause why it should not be deemed abandoned and plugged; and
(b) That the injection well can be maintained in a manner so as to prevent any degradation of the waters of the state.
(Added to NAC by Environmental Comm'n, eff. 7-22-87)—(Substituted in revision for NAC 445.4278)