REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

NPDES Permit No NM0030163

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

State of New Mexico Department of Game and Fish
Glenwood State Fish Hatchery
P.O. Box 25112
Santa Fe, NM 87504

is authorized to discharge from a facility located at Catwalk Road, approximately 1-mile northeast of Glenwood in Catron County, New Mexico, to receiving waters named Glenwood Pond on hatchery property to privately owned irrigation system that includes Los Olmos Pond; thence to Whitewater Creek thence to San Francisco River in Segment No. 20.6.4.603 in San Francisco River Basin, the discharges are located on that water at the following coordinates:

Outfall 001 - Latitude 33º 19’ 15.57” North: Longitude 108º 52’ 48.47” West
Outfall 002 - Latitude 33º 19’ 16.44” North: Longitude 108º 52’ 48.26” West

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit supersedes and replaces NPDES Permit No. NM0030163 previously in effect September 1, 2018.

This permit renewal, prepared by Jim Afghani, Environmental Engineer, NPDES Permitting and Wetlands Section (6WD-PE), shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Troy Hill
Acting Director
Water Division (6WD)

ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
F&WS	United States Fish and Wildlife Service
mg/L	Milligrams per liter
ug/L	Micrograms per liter
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NOEC	No Observed Effect Concentration
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
POTW	publicly owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TRE	Toxicity Reduction Evaluation
TRESL	Sub-Lethal Toxicity Reduction Evaluation
TSS	Total suspended solids
UAA	Use attainability analysis
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Service
WLA	Waste-load allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

In this document, references to State WQS and/or rules shall collectively mean the State of New Mexico.

PART I – REQUIREMENTS FOR NPDES PERMITS

A. **LIMITATIONS AND MONITORING REQUIREMENTS**

1. FINAL EFFLUENT LIMITS BASED ON THE HIGHEST MONTHLY AVERAGE FLOW OF 9.16 MGD – OUTFALL 001

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge hatchery wastewater from Glenwood Pond on hatchery property to privately owned irrigation system that includes Los Olmos Pond; thence to Whitewater Creek thence to San Francisco River in San Francisco River Basin from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below.

POLLUTANT	**MINIMUM (MIN)**	**MAXIMUM (MAX)**	**FREQUENCY**	**TYPE**
pH	6.6 s.u.	8.8 s.u.	2/Month	Grab

POLLUTANT	**DAILY AVG**	**DAILY MAX**	**DAILY AVG**	**DAILY MAX**	**FREQUENCY**	**TYPE**
Flow	Report MGD	Report MGD	***	***	Daily	Weir *1
Total Suspended Solids	157 lbs./day	235 lbs./day	10 mg/L	15 mg/L	2/Month *2	Grab
Settle-able Solids	N/A	N/A	0.1 ml/L	0.5 ml/L	2/Month *2	Grab
Total Residual Chlorine	N/A	N/A	NA	0.011mg/L	Daily *3	Grab
Aluminum, total	NA	NA	NA	0.442 mg/L	2/Month *2, 4	Grab
Aluminum, dissolved	NA	NA	NA	Report	One/Term*5	Grab
Ammonia as N, total	NA	NA	NA	Report	One/Term*5	Grab
3-Methyl-4-chlorophenol	NA	NA	NA	Report	One/Term*5	Grab
Dichlorodiphenyltrichloroethane (DDT)	NA	NA	NA	Report	One/Term*5	Grab
Dichlorodiphenyldichloroethylene (DDE)	NA	NA	NA	Report	One/Term*5	Grab
Dichlorodiphenyldichloroethane (DDD)	NA	NA	NA	Report	One/Term*5	Grab
Bis(chloromethyl) ether	NA	NA	NA	Report	One/Term*5	Grab
Gamma-BHC (Lindane)	NA	NA	NA	Report	One/Term*5	Grab
2,4-Dichlorophenoxyacetic acid	NA	NA	NA	Report	One/Term*5	Grab
Hexachlorocyclohexane (HCH)	NA	NA	NA	Report	One/Term*5	Grab

Nitrosamines	NA	NA	NA	Report	One/Term*5	Grab
Nitrosodibutylamine	NA	NA	NA	Report	One/Term*5	Grab
Nitrosodiethylamine	NA	NA	NA	Report	One/Term*5	Grab
N-Nitrosopyrrolidine	NA	NA	NA	Report	One/Term*5	Grab
Pentachlorobenzene	NA	NA	NA	Report	One/Term*5	Grab
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	Report	One/Term*5	Grab
2,4,5-Trichlorophenol	NA	NA	NA	Report	One/Term*5	Grab
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	NA	NA	NA	Report	One/Term*5	Grab

WHOLE EFFLUENT TOXICITY TESTING (7-Day Static Renewal) (See Part II)	**30-DAY AVG MIN**	**7-DAY MIN**	**FREQUENCY**	**TYPE**
Ceriodaphnia dubia	Report	Report	Once per term*6	Grab*7
Pimephales promelas	Report	Report	Once per term*6	Grab*7

Footnotes:

*1. Flow will be monitored by measurement of head over the weir.

*2. The first sample event of any reporting period shall be at least 10-days from the first sample event of the previous reporting period.

*3. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC sampling is required during the period when the FDA approved drug Chloramine-T is used as a treatment for the Bacterial Gill disease.

*4. See **Appendix A of Part II** of the permit for minimum quantification limits.

*5. One time sample for the new approved NMWQS during the first year of the effective permit. Submit the results to both EPA and NMED.

*6. Once per term. Sampling for the whole effluent toxicity test shall occur between April 1 and June 30 during raceway cleaning. See Part II for whole effluent toxicity.

*7. For the WET Testing Type, see directions outlined in Part II.D.2.d - Grab Samples and Composite (Grab samples authorized for this permit).

2. FINAL Effluent Limits – Outfall 002

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge hatchery wastewater from Outfall 002 to Los Olmos Pond, thence to Whitewater Creek; thence to the San Francisco River. Such discharges shall be limited and monitored by the permittee as specified below. If during the entire permit term, there is a discharge from Outfall 002 and not from Outfall 001, the following monitoring limitations and other monitoring requirements shall apply to Outfall 002 and shall be reported on the Outfall 001 DMR. The DMR will state in the remarks section that the discharge is from Outfall 002.

POLLUTANT	MINIMUM (MIN)	MAXIMUM (MAX)	FREQUENCY	TYPE
pH	6.6 s.u.	8.8 s.u.	2/Month	Grab

POLLUTANT	DAILY AVG	DAILY MAX	DAILY AVG	DAILY MAX	FREQUENCY	TYPE
Flow	Report MGD	Report MGD	***	***	Daily	Weir/Estimated or Other device *1
Total Suspended Solids	157 lbs/day	235 lbs/day	10 mg/L	15 mg/L	2/Month *2	Grab
Settleable Solids	N/A	N/A	0.1 ml/L	0.5 ml/L	2/Month *2	Grab
Total Residual Chlorine	N/A	N/A	N/A	0.011mg/L	Daily *3	Grab
Aluminum, total	NA	NA	NA	0.442 mg/L	2/Month *2, 4	Grab
Aluminum, dissolved	NA	NA	NA	Report	One/Term*5	Grab
Ammonia as N, total	NA	NA	NA	Report	One/Term*5	Grab
3-Methyl-4-chlorophenol	NA	NA	NA	Report	One/Term*5	Grab
Dichlorodiphenyltrichloroethane (DDT)	NA	NA	NA	Report	One/Term*5	Grab
Dichlorodiphenyldichloroethylene (DDE)	NA	NA	NA	Report	One/Term*5	Grab
Dichlorodiphenyldichloroethane (DDD)	NA	NA	NA	Report	One/Term*5	Grab
Bis(chloromethyl) ether	NA	NA	NA	Report	One/Term*5	Grab
Gamma-BHC (Lindane)	NA	NA	NA	Report	One/Term*5	Grab
2,4-Dichlorophenoxyacetic acid	NA	NA	NA	Report	One/Term*5	Grab
Hexachlorocyclohexane (HCH)	NA	NA	NA	Report	One/Term*5	Grab
Nitrosamines	NA	NA	NA	Report	One/Term*5	Grab
Nitrosodibutylamine	NA	NA	NA	Report	One/Term*5	Grab
Nitrosodiethylamine	NA	NA	NA	Report	One/Term*5	Grab
N-Nitrosopyrrolidine	NA	NA	NA	Report	One/Term*5	Grab
Pentachlorobenzene	NA	NA	NA	Report	One/Term*5	Grab
1,2,4,5-Tetrachlorobenzene	NA	NA	NA	Report	One/Term*5	Grab
2,4,5-Trichlorophenol	NA	NA	NA	Report	One/Term*5	Grab
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	NA	NA	NA	Report	One/Term*5	Grab

WHOLE EFFLUENT TOXICITY TESTING (7-Day Static Renewal) (See Part II)	30-DAY AVG MIN	7-DAY MIN	FREQUENCY	TYPE
Ceriodaphnia dubia	Report	Report	Once per term *6	Grab *7
Pimephales promelas	Report	Report	Once per term *6	Grab *7

Footnotes:

*1. When flowing, the total daily flow may be estimated using best engineering judgment. If estimated, flow measurements shall not be subject to the accuracy provisions established at Part Ill.C.6.

*2. The first sample event of any reporting period shall be at least 10-days from the first sample event of the previous reporting period.

*3. The effluent limitation for TRC is the instantaneous maximum grab sample taken during periods of chlorine use and cannot be averaged for reporting purposes. Instantaneous maximum is defined in 40 CFR Part 136 as being measured within 15-minutes of sampling." TRC sampling is required during the period when the FDA approved drug Chloramine-T is used as a treatment for the Bacterial Gill disease.

*4. See Appendix A of Part II of the permit for minimum quantification limits.

*5. One time sample for the new approved NMWQS during the first year of the effective permit. Submit the results to both EPA and NMED.

*6. Once per term. Sampling for the whole effluent toxicity test shall occur between April 1 and June 30 during raceway cleaning. See Part II for whole effluent toxicity.

*7. For the WET Testing Type, see directions outlined in Part II.D.2.d - Grab Samples and Composite (Grab samples authorized for this permit).

3. FINAL Effluent Limits – Outfall 01B – Special Testing - Non-FDA Approved Drugs, Medications and/or Chemicals

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge wastewater containing either non-approved Food and Drug Administration drugs, medications, or chemicals (DMC), or DMC used in a manner not consistent with FDA approval to the Whitewater Creek, in Segment Number 20.6.4.603, from Outfalls 001 and 002 (See Part II). Notify NMED by phone within one business day and EPA within three days if DMCs used are not FDA-approved or are outside FDA recommendations. Send a written notification to both agencies at least five business days later with DMCs name, quantity, concentration, and reason for use. Such discharges shall be limited and monitored by the permittee and reported as Outfall 01B, as specified below:

POLLUTANT	**DAILY AVG**	**DAILY MAX**	**DAILY AVG**	**DAILY MAX**	**FREQUENCY**	**TYPE**
Flow	Report MGD	Report MGD	***	***	Daily	Weir *1

WHOLE EFFLUENT TOXICITY TESTING (48-Hour Static Renewal) (See Part II)	**30-DAY AVG**	**48-HOUR MIN**	**FREQUENCY**	**TYPE**
Ceriodaphnia dubia	Report	Report	Once/Use *2, 3	Grab *4
Pimephales promelas	Report	Report	Once/Use *2, 3	Grab *4

Footnotes:

*1. The flow shall be from only the outfall associated with the DMC use. Flow is NOT to be composited with the other outfalls.

*2. Once per use is defined as one WET test for each continuous use of the DMC. For long-term use of these DMC, only one WET test shall be required on the maximum dose of the treatment, unless that maximum dose is later increased by 20 percent. At that point, and any later increases above 20 percent, then additional WET tests will be required.

*3. Once per use. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any. See Part II.

*4. Grab sample shall be taken approximately 30-minutes after the expected time of arrival of the treated water has passed through the outfall. The expected time of arrival can be determined by direct observation using floatable markers such as wooden blocks.

B. **CHLORINE USEAGE AS TREATMENT**

TRC sampling is required during the period when the FDA approved drug Chloramine-T is used as a treatment for the Bacterial Gill Disease.

C. **FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS**

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no discharge of visible films of oil, globules of oil, grease, or solids in or on the water, or coatings on stream banks. Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the weir locations prior to the receiving stream.

D. **SAMPLE LOCATION**

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit prior to the receiving stream. The sample point shall be clearly marked by the facility if it is not at the final outfall location. There shall be no flow from any source into the piping system after the sample point and prior to the final outfall.

E. **SCHEDULE OF COMPLIANCE** - None

F. **MONITORING AND REPORTING** (MINOR DISCHARGERS)

1. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.

2. Applicable reports (DMRs, Biosolids/Sewage Sludge, Pretreatment Program and Sewer Overflow/Bypass Event) shall be electronically reported to EPA at https://cdx.epa.gov/ as required by 40 CFR 127.16. The permittee may seek a waiver from electronic reporting or until approved for electronic reporting, the permittee shall first submit an electronic reporting waiver request to U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-7179. If paper reporting is granted, the permittee shall submit reports on paper in accordance with signature and certification as required by Part III.D.11, and all other reports required by Part III.D. to the EPA and NMED as required (See Part III.D.4 of the permit).

e-Reporting Programs (if any of the following applicable**)**	**e-Reporting Compliance Date**	**Frequency**
DMRs	Permit effective date	Monthly
Biosolids/Sewage Sludge Report	Permit effective date	Annually
Pretreatment Program Reports	By 21 December 2025	Annually
Sewer Overflow/Bypass Event Reports and Anticipated Bypass Notices	By 21 December 2025	Monthly

3. If any 30-day average, monthly average, 7-day average weekly average or daily maximum value exceeds the effluent limitations specified in Part I.A, the permittee shall report the excursion in accordance with the requirements of Part III.D.

4. Any 30-day average, monthly average, 7-day average, weekly average, or daily maximum value reported in the required DMR which is more than the effluent limitation specified in Part I.A shall constitute evidence of violation of such effluent limitation and of this permit.

5. Other measurements of oxygen demand (e.g., TOC and COD) may be substituted BOD_5 or for $CBOD_5$, as applicable, where the permittee can demonstrate long-term correlation of the method with BOD_5 or $CBOD_5$ values, as applicable. Details of the correlation procedures used must be submitted and prior approval granted by the permitting authority for this procedure to be acceptable. Data reported must also include evidence to show that the proper correlation continues to exist after approval.

6. NO DISCHARGE REPORTING: A list of the NODI codes is available in the NetDMR system. For example, if there is no discharge from any outfall during the sampling month, enter a NODI code "C."

G. **OVERFLOW REPORTING**

The permittee shall report all overflows with the DMR submittal. However, once available, the permittee may be required to use the Net-Sewer Overflow electronic reporting system to replace the paper reporting requirements. These reports shall be summarized and reported in tabular format. The summaries shall include date, time, duration, location, estimated volume, and cause of the overflow. They shall also include observed environmental impacts from the overflow; actions taken to address the overflow; and the ultimate discharge location if not contained (e.g., storm sewer system, ditch, and tributary).

Overflows that endanger health or the environment shall be orally reported to EPA at (214) 665- 7179, and NMED Surface Water Quality Bureau at (505) 827-0187, within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows that endanger health or the environment shall be provided to EPA and NMED Surface Water Quality Bureau within 5 days of the time the permittee becomes aware of the circumstance.

H. **POLLUTION PREVENTION REQUIREMENTS**

The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall maintain a written report on site summarizing such activities per Part III of the permit. The following items shall be considered in the program:

* The influent loadings, flow, and design capacity;
* The effluent quality and plant performance;
* The age and expected life of the wastewater treatment facility's equipment;
* Bypasses and overflows of the tributary sewerage system and treatment works;
* New developments at the facility;
* Operator certification and training plans and status;
* The financial status of the facility;
* Preventative maintenance programs and equipment conditions and;
* An overall evaluation of conditions at the facility.

I. **APPLICATION, DMR, AND COMPLIANCE STATUS REPORT**

A duplicate copy of application for permit renewal, monthly DMR, and compliance status report, if there are any, shall be sent to NMED at the mailing address listed in Part III of this permit.

PART II - OTHER CONDITIONS

A. MINIMUM QUANTIFICATION LEVEL (MQL) & SUFFICIENTLY SENSITIVE METHODS

EPA-approved test procedures (methods) for analyzing and quantifying pollutants or pollutant parameters, including compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is "sufficiently sensitive" when

1. The minimum method level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter;

2. If there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or

3. The method is specified in this permit or has been approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter.

The Permittee can develop and submit a report to justify using a matrix or sample specific MLs rather than the published levels. Upon written approval by EPA Region 6, the matrix or sample specific MLs may be utilized by the Permittee for all future DMR reporting requirements.

Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit. The following pollutants may not have EPA-approved methods with a published ML at or below the effluent limit, if specified:

POLLUTANT	CAS Number	STORET Code
Total Residual Chlorine	7782-50-5	50060
Cadmium	7440-43-9	01027
Silver	7440-22-4	01077
Thallium	7440-28-0	01059
Cyanide	57-12-5	78248
Dioxin (2,3,7,8-TCDD)	1764-01-6	34675
4, 6-Dinitro-0-Cresol	534-52-1	34657
Pentachlorophenol	87-86-5	39032
Benzidine	92-87-5	39120
Chrysene	218-01-9	34320
Hexachlorobenzene	118-74-1	39700
N-Nitrosodimethylamine	62-75-9	34438
Aldrin	309-00-2	39330
Chlordane	57-74-9	39350
Dieldrin	60-57-1	39380
Heptachlor	76-44-8	39410
Heptachlor epoxide	1024-57-3	39420
Toxaphene	8001-35-2	39400

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs.

Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, but the analytical test result is less than the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

B. **24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS**

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, and concurrently to NMED within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

* The facility has a total residual chlorine effluent limit during the event Chloramine-T is utilized. If there is a TRC exceedance this should be reported within 24 hours.

C. **PERMIT MODIFICATION AND REOPENER**

In accordance with 40 CFR Part 122.44(d), the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised, or State of New Mexico water quality standards are established and/or remanded.

In accordance with 40 CFR Part 122.62(a)(2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5.

D. **WHOLE EFFLUENT TOXICITY TESTING (**7-DAY CHRONIC NOEC FRESHWATER**)**

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S):	001, 002
REPORTED ON DMR AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	100
EFFLUENT CONCENTRATIONS (%):	32, 42, 56, 75, and 100
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	[40 CFR Part 136]

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA 821 R 02 013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA 821 R 02 013, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.

ii. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.

iii. 60% of the surviving control females must produce three broods. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.

iv. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

v. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

vii. a PMSD range of 13 - 47 for Ceriodaphnia dubia reproduction;

viii. a PMSD range of 12 - 30 for Fathead minnow growth.
Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

i. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.

ii. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.

iii. If the conditions of Test Acceptability are met in Item 2.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 3 below.

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

(A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
(B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory because of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;
(B) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);
(C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and
(D) the synthetic dilution water shall have a pH, hardness, and alkalinity like that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites (**GRAB** samples authorized for this permit)

i. The permittee shall collect a minimum of three **GRAB** samples from the outfall(s) listed at Item 1.a above.

ii. The permittee shall collect second and third **GRAB** samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the **GRAB** samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

iii. The permittee must collect the **GRAB** samples so that the maximum holding time for any effluent

sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last **GRAB** sample. Samples shall be chilled to 4 degrees Centigrade during collection, shipping, and/or storage.

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent **GRAB** sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent **GRAB** sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached for EPA review.

c. The permittee shall submit the results of each valid toxicity test as follows below. Submit retest information, if required, clearly marked as such. Only results of valid tests are to be reported.

i. Pimephales promelas (Fathead Minnow)

(A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a ‘1’; otherwise, enter a ‘0’ for Parameter No. TLP6C
(B) Report the NOEC value for survival, Parameter No. TOP6C
(C) Report the LOEC value for survival, Parameter No. TXP6C
(D) Report the NOEC value for growth, Parameter No. TPP6C
(E) Report the LOEC value for growth, Parameter No. TYP6C
(F) If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a ‘1’; otherwise, enter a ‘0’ for Parameter No. TGP6C
(G) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C

ii. Ceriodaphnia dubia

(A) If the NOEC for survival is less than the critical dilution, enter a ‘1’; otherwise, enter a ‘0’ for Parameter No. TLP3B
(B) Report the NOEC value for survival, Parameter No. TOP3B
(C) Report the LOEC value for survival, Parameter No. TXP3B
(D) Report the NOEC value for reproduction, Parameter No. TPP3B

(E) Report the LOEC value for reproduction, Parameter No. TYP3B
(F) If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP3B
(G) Report the higher (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B

d. If retests are required by NMED, enter the following codes:

i. For retest number 1, Parameter 22415, enter a '1' if the NOEC for survival is less than the critical dilution; otherwise, enter a '0'

ii. For retest number 2, Parameter 22416, enter a '1' if the NOEC for survival is less than the critical dilution; otherwise, enter a '0'

E. **BEST MANAGEMENT PRACTICES**

1. IMPLEMENTATION

The permittee shall continue to maintain and update its Best Management Practices (BMP) Plan that achieves the objectives and the specific requirements listed below. The current plan provided previously shall remain in effect with this permit. The following are elements of the plan that must be maintained in updates as needed.

2. PURPOSE

Through implementation of the BMP Plan the permittee shall prevent or minimize the generation of and the potential for the release of pollutants from the facility to the waters of the United States through normal operations and ancillary activities.

3. OBJECTIVES

The permittee shall develop and amend the BMP Plan consistent with the following objectives for the control of pollutants:

a. The number and quantity of pollutants and the toxicity of effluent generated, discharged, or potentially discharged at the facility shall be minimized by the permittee to the extent feasible by managing each influent waste stream in the most appropriate manner.

b. Under the BMP Plan, and any Standard Operating procedures (SOPS) included in the Plan, the permittee shall ensure proper operation and maintenance of the treatment facility.

4. REQUIREMENTS

The BMP Plan shall be consistent with the objectives mentioned above and the general guidance contained in the publication entitled "Best Management [practices Guidance Document" (U.S. EPA 1981) or "Guidance manual for Developing Best Management Practices (BMP's)" (U.S. EPA October 1993), or any subsequent revisions to the guidance document where applicable. The Plan shall be documented in narrative form, and shall include any necessary plot plan, drawings, or maps, and shall be developed in accordance with good engineering practices. The BMP Plan shall be organized and written with the following structures:

a. Name and location of the facility.

b. Statement of BMP policy.

c. The location of all monitoring (sampling) stations.

d. Summary of all data required to the monitoring and sampled for as a permit condition.

e. Specific management practices and standard operating procedures to achieve objective, including, but not limited to the following;

i. Modification of equipment, facilities, technology, procedures.

ii. Improvement in management or general operational phases of the facility.

iii. Inspections and records.

iv. Reporting of BMP's incidents.

5. MINIMUM PRACTICES REQUIRED AND IMPLEMENTED IN THE BMP

a. Solids Control

i. Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth to minimize potential discharges of uneaten feed and waste products to waters of the U.S.

ii. To minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading, and harvesting aquatic animals in the production system.

iii. Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except in cases where the permitting authority authorizes such discharge to benefit the aquatic environment.

a. Materials Storage

i. Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the U.S.
ii. Implement procedures for properly containing, cleaning, and disposing of any spilled material.

c. Structural Maintenance

i. Inspect the production system and the wastewater treatment system on a routine basis to identify and promptly repair any damage.

ii. Conduct regular maintenance of the production system and the wastewater treatment system to ensure that they are properly functioning.

d. Recordkeeping

i. To calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals.

ii. Keep records documenting the frequency of cleaning, inspections, maintenance, and repairs.

e. Training - the permittee must:

i. To ensure the proper clean-up and disposal of spilled material adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill.

ii. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

6. DOCUMENTATION

The permittee shall maintain a copy of the BMP Plan at the facility and shall make the plan available to EPA upon request.

7. MODIFICATION

The permittee shall amend a copy of the BMP Plan whenever there is a change in the facility or in the operation of the facility that increases the generation of pollutants or their release or potential release to the receiving waters. The permittee shall also amend the plan, as appropriate, when plant operations covered by the BMP Plan change. Any such changes to the BMP shall be consistent with the objective and specific requirements listed above. All changes in the BMP Plan shall be reported to EPA and NMED in writing.

8. MODIFICATION FOR INEFFECTIVENESS

At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or meeting the specific requirements above, the permit and/or the BMP Plan shall be subject to modifications to incorporate revised BMP requirements.

F. **DRUGS, MEDICATIONS and CHEMICALS** (EXCLUDING CHLORINE)

Except for chlorine, anytime drugs, medications, and chemicals (DMC), at either concentrations and/or uses not approved by the Food and Drug Administration (FDA), are used either in amounts or a manner that it would allow it to enter the receiving stream, the Department of Game and Fish (DGF) shall notify both EPA and NMED of its impending use. Notification to NMED shall be by phone within one business day of its decision to use the DMC, and to EPA within three days. Written notification shall also be to both EPA and NMED, in writing no less than five-business days later. Both notifications shall provide the name of the DMC, its amount, concentration of use and reason for its use, along with the expected date and time of its use and expected duration of use.

Except for chlorine, anytime the DGF uses drugs, medications, and chemicals (DMC), at either amounts and/or uses not approved by the FDA, such that it would allow it to enter the receiving stream, DGF shall conduct Whole Effluent Toxicity (WET) tests. The testing shall be reported on the discharge monitoring report (DMR) and reported as Outfall 01B.

On the DMR, report in the comment section the date, time duration and the name of the DMC used. Also note the date of the letter sent to EPA and NMED.

WET testing shall be conducted on the maximum dose of each instance of intermittent use of drugs, medications and/or chemicals not approved by the FDA, or drugs, medications and/or chemicals for purposes other than those for which FDA approval was granted (not including chlorine). For long-term use of these drugs, medications and/or chemicals, only one WET test shall be required on the maximum dose of the treatment, unless that maximum dose is later increased by 20 percent. At that point, and any later increases above 20 percent, then additional WET tests will be required. The sample shall NOT be flow weighted with other outfall flow.

The sample shall occur at the outfall location consistent with the unit being treated, during the time that the expected highest dose is being administered and shall be taken at a time taking into consideration the lag-time for the slug of maximum dosage of DMC to flow from the point of application to the sample point. The grab sample for the WET test shall be taken 30-minutes after the expected arrival time of the treated water of DMC at the outfall. The expected arrival time can be determined by direct observation by use of a floatable marker such as wooden blocks.

G. **WHOLE EFFLUENT TOXICITY TESTING** (48-HOUR ACUTE NOEC FRESHWATER) **DMC USAGE**

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6.

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S):	01B
REPORTED ON DMR AS FINAL OUTFALL:	01B
EFFLUENT CONCENTRATIONS (%):	32, 42, 56, 75, and 100
CRITICAL DILUTION (%):	100
COMPOSITE SAMPLE TYPE:	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static renewal 48-hour definitive toxicity test using EPA 821 R 02 012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test using EPA 821 R 02 012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Lethal Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. Test failure is defined as a demonstration of statistically significant lethal effects to a test species at or below the effluent critical dilution.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.

ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: Daphnia pulex survival test; and Fathead minnow survival test.

iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution unless significant lethal effects are exhibited for: Daphnia pulex survival test; and Fathead minnow survival test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA 821 R 02 012 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be a passing test, and the permittee shall report a NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

(**A**) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
(**B**) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory because of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(**A**) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;
(**B**) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);
(**C**) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and
(**D**) the synthetic dilution water shall have a pH, hardness, and alkalinity like that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites (Grab samples authorized for this permit)

i. The permittee shall collect two grab samples from the outfall(s) listed at Item 1.a above.

ii. The permittee shall collect a second grab sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the grab samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the grab sample. Samples shall be chilled to 4 degrees Centigrade during collection, shipping, and/or storage.

iii. The permittee must collect the grab samples such that the effluent samples are representative of any periodic episode of DMC, biocide usage or other potentially toxic substance discharged on an intermittent basis.

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent grab sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent.

When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent grab sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA 821 R 02 012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period.

All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.

c. The permittee shall report the following results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. Pimephales promelas (Fathead minnow)

(**A**) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
(**B**) Report the NOEC value for survival, Parameter No. TOM6C.
(**C**) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.

ii. Daphnia pulex

(**A**) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
(**B**) Report the NOEC value for survival, Parameter No. TOM3D.
(**C**) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

d. Enter the following codes on the DMR for retests only:

i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

ii. For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."