Presented below are water quality standards that are in effect for Clean Water Act purposes.

EPA is posting these standards as a convenience to users and has made a reasonable effort to assure their accuracy. Additionally, EPA has made a reasonable effort to identify parts of the standards that are not approved, disapproved, or are otherwise not in effect for Clean Water Act purposes.

Water Quality Standards in the Basin Plan Amendment to the Water Quality Control Plan for the Lahontan Region; *Amendment to the Water Quality Control Plan for the Lahontan Region (Basin Plan) to Replace a Pesticide Water Quality Objective with a Waste Discharge Prohibition on Pesticides with Exemption Criteria*

(Resolution Number 2012-0018 (R6T-2011-0102))

The State Water Resources Control Board (SWRCB) Resolution Number 2012-0018 (R6T-2011-0102); *Amendment to the Water Quality Control Plan for the Lahontan Region (Basin Plan) to Replace a Pesticide Water Quality Objective with a Waste Discharge Prohibition on Pesticides with Exemption Criteria* (the Amendment) was adopted by the Lahontan Regional Water Quality Control Board (Regional Board) on December 7, 2011 under Resolution No. 6T-2011-0102, and adopted by the State Water Resources Control Board (SWRCB) on May 15, 2012 under Resolution No. 2012-0018. The Amendment was certified by the California Office of Administrative Law on September 6, 2012. The complete submission package was received by EPA on September 10, 2012.

APPROVALS

EPA finds the portions of the Amendment listed below to be consistent with the Clean Water Act and implementing regulations at 40 CFR 131, and approves these portions of the amendment:

Revisions to Chapter 3 (Water Quality Objectives)

Chapter 3, pp. 3-2, 3-3
Water Quality Objectives Which Apply to All Surface Waters.
~~Pesticides~~

Chapter 3, pp. 3-3
3. **Water Quality Objectives for Fisheries Management Activities Using the Toxicant Rotenone**
Rotenone is a fish toxicant presently used by the California Department of Fish and Game (DFG) and the United States Fish and Wildlife Service (USFWS) for fishery management purposes. (See detailed discussions later in this Chapter and in Chapter 4.) Additional water quality objectives pertinent to rotenone treatments are: Color, ~~Pesticides~~, Chemical Constituents, ~~Species Composition~~, and Toxicity.

Chapter 3, pp.3-5
Pesticides
~~For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi, or weeds capable of infesting or harming vegetation, humans, or animals (CA Agricultural Code 12735).~~

~~Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.~~

~~Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in Table 6444-A of Section 64444 (Organic Chemicals) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.~~

Chapter 3, pp. 3-10
Water Quality Objectives for Fisheries Management Activities Using the Fish Toxicant Rotenone
Rotenone is a fish toxicant presently used by the California Department of Fish and Game (DFG) and the United States Fish and Wildlife Service (USFWS) for fishery management purposes. (See Chapter 4 for a more complete discussion of this topic.)

The application of rotenone ~~solutions~~ and the detoxification agent potassium permanganate can cause several water quality objectives to be temporarily exceeded, both inside and outside of project boundaries. (Project boundaries are defined as encompassing the treatment area, the detoxification area, and the area downstream of the detoxification station up to thirty-minute travel time.)

~~Additional narrative water quality objectives applicable to rotenone treatments are color, pesticides, toxicity, and species composition.~~ The Basin Plan (See Chapter 4) contains prohibitions against discharges of waste that result in violation of narrative or numeric water quality objectives. Conditional ~~variances~~ exemptions to these ~~objectives~~ prohibitions may be granted by the Regional Board~~'s~~ or its Executive Officer, if so delegated, for rotenone applications by the DFG or the USFWS, provided that such projects comply with the conditions described below and with the ~~conditions~~ criteria described in Chapter 4 ~~(Implementation)~~ under the section entitled ~~"Rotenone Use In Fisheries Management."~~ "Exemption for Fisheries Management." The following project-specific water quality objectives or receiving water limitations also apply to fisheries management projects using rotenone during and immediately after treatment."

Color
The characteristic purple discoloration resulting from the discharge of potassium permanganate shall not be discernible more than two miles downstream of project boundaries at any time. Twenty-four (24) hours after shutdown of the detoxification operation, no color alteration(s) resulting from the discharge of potassium permanganate shall be discernible within or downstream of project boundaries.

~~Pesticides~~ Chemical Constituents
Chemical residues resulting from rotenone treatment must not exceed the following limitations:

1. The concentration of naphthalene outside of project boundaries shall not exceed 25 µg/l (ppb) at any time.

2. The concentration of rotenone, trichloroethylene (TCE), xylene, or acetone (or potential trace contaminants such as benzene or ethylbenzene) outside of project boundaries shall

not exceed the detection levels for these respective compounds at any time. "Detection level" is defined as the minimum level that can be reasonably detected using state-of-the-art equipment and methodology.

3. After a two-week period has elapsed from the date that rotenone application was completed, no chemical residues resulting from the treatment shall be present at detectable levels within or downstream of project boundaries.

4. No chemical residues resulting from rotenone treatments shall exceed detection levels in ground water at any time.

Species Composition

~~The reduction in fish diversity associated with the elimination of non-native game fish may be part of the project goal, and may be unavoidable. However, non-target aquatic populations (e.g., invertebrates, amphibians) that are reduced by rotenone treatments are expected to repopulate project areas within one year. Where species composition objectives are established for specific water bodies or hydrologic units, or ecoregions, the established objective(s) shall be met for all non-target aquatic organisms within one year following rotenone treatment. For multi-year treatments (i.e., when rotenone is applied to the same water body during two or more consecutive years) the established objective(s) shall be met for all non-target aquatic organisms within one year following the final rotenone application to a given water body.~~

~~Threatened or endangered aquatic populations (e.g., invertebrates, amphibians) shall not be adversely affected. The DFG shall conduct pre-project monitoring to prevent rotenone application where threatened or endangered species may be adversely affected.~~

Toxicity

Chemical residues resulting from rotenone treatment must not exceed the limitations listed above for ~~pesticides~~ chemical constituents.

Chapter 5, pp. 5.1-7, 5.1-8

Pesticides

~~For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi, or weeds capable of infesting or harming vegetation, humans, or animals (CA Agricultural Code § 12735).~~

~~Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.~~

~~Waters designated as MUN shall not contain concentrations of pesticides and herbicides in excess of the limiting concentrations specified in Table 6444-A of Section 64444 (Organic Chemicals) of Title 22 of the California Code of Regulations which is incorporated by~~

reference into this plan. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.

Chapter 5, pp. 5.1-10

Water Quality Objectives for Fisheries Management Activities Using the Fish Toxicant Rotenone

Rotenone is a fish toxicant used by the California Department of Fish and Game (DFG) and the United States Fish and Wildlife Service (USFWS) for fishery management purposes. (See Chapter 4 for a more complete discussion of this topic.)

The application of rotenone solutions and the detoxification agent potassium permanganate can cause several water quality objectives to be temporarily exceeded, both inside and outside of project boundaries. (Project boundaries are defined as encompassing the treatment area, the detoxification area, and the area downstream of the detoxification station up to thirty minute travel time.)

Additional narrative water quality objectives applicable to rotenone treatments are color, pesticides, toxicity, and species composition. Conditional variances to these objectives may be granted by the Regional Board's Executive Officer for rotenone applications by the DFG, provided that such projects comply with the conditions described below and with the conditions described in Chapter 4 (Implementation) under the section entitled "Rotenone Use In Fisheries Management."

Color

The characteristic purple discoloration resulting from the discharge of potassium permanganate shall not be discernible more than two miles downstream of project boundaries at any time. Twenty four (24) hours after shutdown of the detoxification operation, no color alteration(s) resulting from the discharge of potassium permanganate shall be discernible within or downstream of project boundaries.

Pesticides

Chemical residues resulting from rotenone treatment must not exceed the following limitations:

1. The concentration of naphthalene outside of project boundaries shall not exceed 25 µg/l (ppb) at any time.

2. The concentration of rotenone, trichloroethylene (TCE), xylene, or acetone (or potential trace contaminants such as benzene or ethylbenzene) outside of project boundaries shall not exceed the detection levels for these respective compounds at any time. "Detection level" is defined as the minimum level that can be reasonably detected using state of the art equipment and methodology.

3. After a two week period has elapsed from the date that rotenone application was completed, no chemical residues resulting from the treatment shall be present at detectable levels within or downstream of project boundaries.

4. No chemical residues resulting from rotenone treatments shall exceed detection levels in ground water at any time.

Species Composition

The reduction in fish diversity associated with the elimination of non-native game fish or exotic species may be part of the project goal, and may therefore be unavoidable. However, non-target aquatic populations (e.g., invertebrates, amphibians) that are reduced by rotenone treatments are expected to repopulate project areas within one year. Where species composition objectives are established for specific water bodies or hydrologic units, the established objective(s) shall be met for all non-target aquatic organisms within one year following rotenone treatment. For multi-year treatments (i.e., when rotenone is applied to the same water body during two or more consecutive years) the established objective(s) shall be met for all non-target aquatic organisms within one year following the final rotenone application to a given water body.

Threatened or endangered aquatic populations (e.g., invertebrates, amphibians) shall not be adversely affected. The DFG shall conduct pre-project monitoring to prevent rotenone application where threatened or endangered species may be adversely impacted.

Toxicity

Chemical residues resulting from rotenone treatment must not exceed the limitations listed above for pesticides.