The following changes apply to Chapter 5 of the Basin Plan. Deletions to language are shown in strike-out and additions are in underline. Font sizes are as they appear in the Basin Plan available at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml. Instructions regarding edits, page number locations, and relocation placement are shown in 12 point Times New Roman Font in bold type.

Chapter 5.1, 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 Agriculture Code § 12753).~~

~~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 64444-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.~~

Though applicable for fisheries management projects in the Lake Tahoe Basin, the following language will be struck from Chapter 5, since this language is mentioned previously in Chapter 3. Additionally, Chapter 5, p. 5.16-2, clearly states that projects proposing to use rotenone for use in waters of the Tahoe Basin must comply with the Exemption Criteria for Fisheries Management, which require compliance with criteria described in Chapter 3 in the sections entitled (1) Water Quality Objectives for Fisheries Management Using the Fish Toxicant Rotenone."

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) 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 a 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 ug/liter (ppb) at any time.~~

2. ~~The concentration of rotenone, rotenolone, 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.~~

The proposed amendment would insert the following language in Chapter 5.2, Lake Tahoe Basin, "Waste Discharge Prohibitions", immediately preceding "Regionwide Prohibitions".

For regionwide prohibitions, where a decision is tasked to the Regional Board, the term "Regional Board" includes the Executive Officer where the Regional Board delegates such authority.

The proposed amendment would insert the following language in Section 5.2, Lake Tahoe Basin, "Waste Discharge Prohibitions, Regionwide Prohibitions" immediately after Waste Discharge Prohibition 4:

5. The discharge of pesticides to surface or ground waters is prohibited.[1]

The following language should be included in a separate paragraph immediately following the proposed prohibition no. 5 in Section 5.2. and immediately before "Regionwide Exemption Criteria for Restoration Projects."

Specific projects may be eligible for an exemption to this prohibition. Refer to Chapter 4.1 of the Basin Plan to determine eligible circumstances and criteria that must be satisfied for consideration of an exemption.

Chapter 5, p. 5.16-2

Pesticides

Although there is no agricultural use of pesticides in the Lake Tahoe Basin, potential water quality problems from pesticide use in landscaping, turf management, silviculture, and wood preservatives are of concern. High levels of tributyltin (TBT), an antifouling compound formerly used in boat paint, have been measured in and near a marina in Lake Tahoe. Rotenone has been used for fisheries management in some waters of the Tahoe Basin.

~~Regionwide water quality objectives, and related objectives for nondegradation and toxicity, essentially preclude direct discharges of pesticides such as aquatic herbicides~~. The Lahontan Regional Board's regionwide prohibition for pesticides and control measures for pesticides, discussed in Chapter 4 of this Basin Plan, are applicable in the Lake Tahoe Basin. Exemptions to this regionwide prohibition may be granted as described in Chapter 4.1 provided the application of aquatic pesticides is proposed for the circumstances described under the section entitled "Circumstances Eligible for Prohibition Exemption" and according to the criteria under the section entitled "Exemption Criteria for Aquatic Pesticide Use." As described in Chapter 4.1, projects proposing to use rotenone for use in waters of the Tahoe Basin must comply with the "Exemption Criteria for Fisheries Management," which require compliance with criteria described in Chapter 3 in the section entitled (1) Water Quality Objectives for Fisheries Management Using the Fish Toxicant Rotenone."

The 208 Plan (TRPA 1988, Vol. I, page 102) notes that because of its harsh climate, short growing season, and high elevation, the Lake Tahoe Basin has fewer insect and fungal pests than many other areas in California and Nevada; however, there is some pesticide use for silviculture and turf management. The 208 Plan recognizes that controls are needed on the use of pesticides to ensure that detectable levels of toxic substances do not migrate into the surface or ground waters of the

[1] Compliance with this prohibition will be assessed or measured by evidence of pesticide application to liquid water or by analyzing water samples (from either surface or ground waters) for the presence of pesticides. Therefore, proper application of terrestrial pesticides directly to plants or animals located in a surface water (as defined by the Water Code) under dry conditions or directly to land adjacent to surface water should not (1) result in a violation of the prohibition, (2) require the project proponent submit an exemption request to the Regional Board, nor (3) require the Regional Board to consider exemptions to the prohibition.

Dry condition example: The application of terrestrial pesticides to the dry stream beds of ephemeral streams would not require a prohibition exemption since this situation involves pesticide application under a dry condition (i.e., no liquid water is present in the ephemeral stream).

Adjacent to surface water example: The application of terrestrial pesticides along a canal to kill weeds and help maintain structural stability would not require a prohibition exemption since this situation involves pesticide application to land, not liquid water.

region, but also recognizes the possibility of limited exceptions for the use of rotenone in fisheries management.

The 208 Plan states (Vol. I, page 154) that the use of insecticides, fungicides, and herbicides shall be consistent with the BMP Handbook (TRPA 1988, Vol. II), and that TRPA shall discourage pesticide use for pest management. Prior to applying any pesticide, potential users shall consider integrated pest management (IPM) practices, including alternatives to chemical applications, management of forest resources in a manner less conducive to pests, and reduced reliance on potentially hazardous chemicals.

The 208 Plan provides that only chemicals registered with the USEPA and the state agency of appropriate jurisdiction shall be used for pest control, and then only for their registered application. No detectable concentration of any pesticide shall be allowed to enter any SEZ unless TRPA finds that the application is necessary to attain or maintain its "environmental threshold carrying capacity" standards. Pesticide storage and use must be consistent with California and Nevada water quality standards and TRPA thresholds.

The 208 Plan recognizes that antifouling substances painted on the hulls of boats, such as TBT, may contribute to water quality problems. California legislation in 1988 prohibited the use of TBT paints except on aluminum vessel hulls and vessels 25 meters or more in length. Vessels painted with TBT before January 1, 1988 may still be used, but may not be repainted with TBT so long as they comply with other applicable requirements. The USEPA has also banned the use of TBT on non-aluminum hulls of vessels less than 82 feet in length and has limited the release rate of TBT from other hulls to 0.4 ug/cm^2/day. [The prohibition against discharges of pesticides to surface waters ~~"no detectable pesticides" water quality objective~~ in this Basin Plan is ~~probably~~ more stringent than this effluent limitation.] Controls on antifouling coatings and boat and marina maintenance practices are necessary to protect Lake Tahoe from the addition of toxic substances from this source. The 208 Plan (Vol. I, page 158) provides that antifouling coatings shall be regulated in accordance with California and federal laws, by the Lahontan Regional Board and TRPA. The BMP Handbook incorporates the California and federal restrictions on use of paints containing TBT, and applies those restrictions to all portions of the Tahoe Region.