

Response to Comments – September 30, 2011

Basin Plan Amendment - Pesticide Prohibition & Exemption Criteria

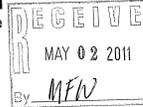
(Comment deadline 5 p.m., May 13, 2011)

Tahoe Water Suppliers Association

http://www.waterboards.ca.gov/lahtan/water_issues/programs/basin_plan/comments051311/twsa.pdf

Comments

Response



TWSA Members:
Cave Rock Water System
Edgewood Water Company
Glenbrook Water Company
Incline Village GID
Kingsbury GID
Lakeside Park Association
North Tahoe PUD
Round Hill GID
Skyland Water Company
South Tahoe PUD
Tahoe City PUD
Zephyr Water Utility

April 27, 2011

Ms. Mary Wagner, Environmental Scientist
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150

Dear Ms. Wagner,

Thank you for all your hard work to choreograph a working group to further research the Tahoe Water Suppliers Association's (TWSA) drinking water concerns into the development of the LRWQCB Basin Plan Amendment, regarding pesticide/herbicide chemical use.

We look forward to working with US EPA, NDEP, CDPH and LRWQCB on determining, if possible, how the proposal of chemical use will affect the filtration exempt status of the 6 TWSA members with that status.

I am assuming the spoken and submitted public comment from the LRWQCB meeting in South Lake Tahoe on April 13, 2011 will be incorporated into the record.

On behalf of the TWSA, we wish to have the following comments included:

The Tahoe Water Suppliers Association (TWSA) consists of public water suppliers in the Lake Tahoe Basin whose source of drinking water is Lake Tahoe. The majority of TWSA members pull water directly from Lake Tahoe to service their customers. The purpose of the TWSA is to protect the quality of the purveyors' drinking water from waterborne contaminants that are potentially harmful to human health. Source water protection is an effective tool in a multi-barrier approach to protecting drinking water.

The Lake Tahoe watershed has benefited from a long history of source water protection, allowing local water purveyors to supply exceptionally high quality drinking water to their customers, with minimal treatment. Several water providers maintain a rarely granted status for a drinking water provider within a watershed open to multiple uses; holding filtration exemption status with the US EPA regarding water treatment requirements.

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There are 160,000 public water systems in the United States. There are only 60 filtration exempt water systems in the entire nation. 6 of those 60 - are Tahoe Water Supplier Association members, here at Lake Tahoe. It is exceptionally rare for EPA to grant filtration exemption status to a drinking water provider located in a watershed open to multiple uses, such as Tahoe.

Loss of the filtration exemption status would be decimating to area water suppliers. Upgrading their existing facilities to filtration plants would require land expansion not available in the Basin, and at least \$10 million dollars per agency in capital expenses.

Due to the implications to drinking water supplies posed by chemical use; the TWSA is opposed to adoption of the proposed Basin Plan Amendment.

However, the TWSA realizes that the proposed amendment changes are related to the need for revised statutes to address vector control, aquatic invasive species and other water quality concerns within the entire Lahontan region; and that the existing regulations do not allow the LRWQCB to address these needs.

Therefore we wish to voice our most pressing concerns:

- 1) Lake Tahoe is a Tier 3, Outstanding National Resource Water (ONRW). The Tahoe Water Suppliers Association supports the continued prohibition on the use of any chemical agents in Lake Tahoe. If the LRWQCB does not want to grant an ongoing prohibition for Lake Tahoe, at a minimum provide a prohibition for 5 to 10 years at Lake Tahoe. This would allow for Lahontan's project review process to be developed. Through this process, the scientific documentation of selected chemical use affects on drinking water could be vetted in the lower tier water bodies within the Lahontan Board's purview.

Regarding the Tier 2 lands in the Tahoe watershed, allow selected chemical use and related waste discharge - only for projects related to public health, vector control and protection of drinking water supply. These projects must be subject to rigorous project review, including water purveyor review, before approval.

In the event of an emergency within Lake Tahoe, include language granting the LRWQCB a special exemption category. This category would allow LRWQCB to permit possible chemical use and waste discharge only after strict project review (inclusive of review by a potentially affected water provider) in the case of an emergency situation related only, to: public health, vector control and protection of drinking water supply.

- 2) Within this proposed Basin Plan Amendment, there is no reference to Lake Tahoe's status as a bi-state regulated water body. It is of great concern to the TWSA members

TWSA R1: At its April and May Water Board Meetings, staff specifically asked the Water Board to provide direction on (1) whether Lake Tahoe, as a designated ONRW, should be explicitly excluded from exemption eligibility, (2) if exemption eligibility for projects within the Lake Tahoe Basin should be delayed until after staff and the Board have had time to examine the efficacy of our proposed regulatory approach and the control measures once they are in practice elsewhere in the Lahontan Region, and (3) if exemption eligibility for projects in Lake Tahoe should be limited to emergency situations only. The Water Board indicated that staff should retain the language as written, since it provides the Water Board discretion to consider projects for all waterbodies in our region for circumstances including those proposed for the protection of public health and safety and ecological integrity. On a project-by-project basis the Water Board will use its discretion to consider, grant, or reject an exemption request. See also **LTSLT R2.**

Water Board staff agree that water purveyors should be involved when aquatic pesticide discharges have the potential to impact water supplies. To meet the needs of the water purveyors and to provide more protection for all surface water drinking intakes, we have added new and/or modified language to Chapter 4 of the Basin Plan under the section titled "Exemption Criteria for Aquatic Pesticide Use. These language edits are based on (1) comments from NDEP, CDPH, and TWSA during our May 9, 2011 meeting, (2) written comments submitted by NDEP, CDPH, and TWSA, and (3) direction provided by the Water Board. For projects proposed in the Lake Tahoe Basin, the newly added language requires a project proponent to consult with potentially affected water purveyors prior to submitting the exemption request to the Water Board. The project proponent must supply the Water Board with a written response from the water purveyor(s) indicating (1) request for project modification (e.g., project design, monitoring, and or mitigation measures), or (2) consent with the project with no continued involvement. See also **NDEP-Drinking Water R2** and **NDEP-Drinking Water R7.**

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TWSA R2: On April 8, 2011 Water Board staff met with TWSA regarding the proposed Basin Plan Amendment. At that meeting, TWSA recommended we engage staff from the Nevada Division of Environmental Protection (NDEP) – Bureau of Safe Drinking Water. Water Board staff began discussions regarding the Basin Plan Amendment with staff from NDEP's Bureau of Safe Drinking Water and Bureau of Water Pollution Control in April 2011 during the public review period for the Basin Plan Amendment. To actively involve NDEP, additional language has been added to the proposed Basin Plan Amendment which provides NDEP the ability to review proposals when projects affect interstate waters that exist within, or flow, to the State of Nevada. See also **NDEP - Drinking Water R1.**

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that the Nevada Department of Environmental Protection has not been formally involved or is even referenced in the development of this document.

Refer to **TSWA R2** on previous page.

3) All consideration of potential water quality impacts has been limited to the residents of the State of California. The Nevada Lake Tahoe area, the Truckee River Corridor and the final outlet at Pyramid Lake all have the potential to be affected by proposed projects at Lake Tahoe within California.

(Page 15) This degradation of water quality may be allowed only if the Water Board finds that some degradation is in the best interest to people of the State, and that the lowering of water quality will not unreasonably affect the designated beneficial uses. Similarly, the federal Antidegradation Policy (40 CFR 131.12) requires that water quality be preserved unless degradation is necessary to accommodate important economic or social development.*

TWSA R3: Refer to **NDEP - Drinking Water R2, NDEP - Drinking Water R4, and NDEP-Drinking Water R10** which require consideration of impacts to residents of the State of Nevada if so affected by the aquatic pesticide discharge. Additional requirements also require notification to downstream agricultural users, which may include Nevada entities.

4) The EPA definition of 'long term' is not defined. Any proposed project which has the potential to impact drinking water quality for even a short period of time may have the potential to affect the filtration exemption status and consumer confidence of an affected water purveyor.

(Page 21) EPA guidance has not defined temporary and short-term specifically, but views these terms as limiting water quality degradation for weeks or months, not years.

5) Mitigation Measures and Water Supplier Purview need clarification.

The TWSA has developed in cooperation with the US Army Corp of Engineers, a Risk Assessment Model which can be used to evaluate potential impacts to the drinking water supply of purveyors in certain areas of Lake Tahoe. This model may be used to evaluate potential impacts from a proposed project.

Due to storage limitations, any project having impacts longer than 1 day could create major service issues for surface water providers, and undermine consumer confidence in the quality of the municipal water supply. How much water would be provided per customer and for how long?

The volume of water needed for this mitigation measure need to be realistically evaluated. Many providers service thousands of customers. Using an alternative source of water during a project as a sufficient mitigation for the systems at Lake Tahoe, may not be realistic.

How will the permitting process delineate the geographic area of an "affected water purveyor?" How will the purview of the water provider be upheld? What happens if a water provider does not agree to proposed mitigation measures?

(Page 52) In these pesticide projects, the proposed amendment's exemption criteria require that project proponents coordinate with potentially affected water purveyors and provide potable drinking water where necessary. That coordination should reduce the potential impact to water supplies, but the

TWSA R4: The Basin Plan Amendment does not provide the EPA definition of long-term because the Water Quality Handbook does not give an exact definition of long-term as it relates to an acceptable period of time in which water quality may be degraded. EPA recognizes the difficulty in distinguishing the time period assigned to short-term and long-term degradation given the variety of activities that might be proposed by a discharger (e.g., construction of a facility, increased discharge from a waste water treatment plant, vector control, etc.) Some activities, such as aquatic pesticide treatments, especially those that use slow-release chemicals, may require a longer period of temporary degradation to achieve the long-term benefit of the project.

Comments

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TWSA R5: Water Board staff acknowledges that aquatic pesticide discharges may impact surface water drinking intakes. To minimize any impacts the Basin Plan Amendment has incorporated language that requires the project proponent to engage any affected water purveyors so they may provide an initial review of the proposed discharge and consent to the project as proposed or request continued involvement in project development for purposes of reducing impacts to the drinking water supply. See also **NDEP-Drinking Water R9** for guidance on delineating the geographic area of an affected water provider. This language has been incorporated in Chapter 4 of the Basin Plan in the section titled "Exemption Criteria for Aquatic Pesticide Use."

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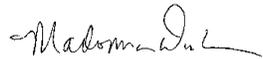
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agreement reached by the coordinating parties is the purview of the water suppliers [CCR Section 15091(a)(2)].

(Page 21) If a pesticide application project is proposed in an ONRW, like Lake Tahoe, the project must satisfy all applicable project criteria, which include compliance with water quality objectives specific to the affected waterbody and receiving water limitations. Permits that are issued to regulate the aquatic pesticide discharges will incorporate numeric receiving water limitations where State or US EPA-based water quality objectives or criteria are available. Additionally, the exemption criteria require implementation of control measures to limit the spatial extent and the temporal impact of the discharge. Compliance with these limitations assures that water quality is sufficient to support beneficial uses.

Respectfully submitted on behalf of the TWSA Board,



Madonna Dunbar, *Executive Director*, Tahoe Water Suppliers Association

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Reference: excerpted sections of concern:

Page 15: "Receiving waters" are defined in the permits as anywhere outside the treatment area at anytime and anywhere inside the treatment area after project completion. The Statewide Aquatic Pesticide permits do not require the duration of the treatment event to be discretely outlined in the permits, but the temporal extent of the pesticide application is intended to be short-term. The Statewide General Aquatic Pesticide Permits require post-treatment sampling of water to begin not more than a week from the time of aquatic pesticide application (or after project completion as determined by the Discharger, and accepted by the Water Board, for larvicides). The goal of the post treatment monitoring is to determine compliance with the receiving water limitations which indicates whether water quality is sufficient to maintain beneficial uses. (Any individual or general NPDES permits or WDR issued by the Water Board will contain monitoring requirements that specify the discharger begin post-treatment sampling no more than a week after the aquatic pesticide application or after project completion as determined by the Discharger, and accepted by the Water Board, for larvicides).

Lake Tahoe is recognized as an Outstanding National Water Body, the designation of which places it in Tier 3 protection category within the proposed Basin Plan Amendment. This tier placement resulted in the following language on page 21:

(Page 21) Tier Three - New or increased discharges to waters designated as Outstanding National Resource Waters (ONRWs) that would result in lower water quality in the ONRW are prohibited. The only exception to this prohibition, as discussed in the preamble to the Water Quality Standards Regulation, is for activities that result in short-term and temporary changes in the water quality of the ONRW. EPA guidance has not defined temporary and short-term specifically, but views these terms as limiting water quality degradation for weeks or months, not years. The intent is to limit degradation to the shortest possible time.

Discussion. Under the federal antidegradation policy [40 CFR 131.12 (a)(3)], ONRWs are provided the highest level of protection. The regulation requires that water quality be maintained and protected, though States are given flexibility to permit limited activities that temporarily lower the ONRW's existing high quality water. Such activities must not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW. Additionally, all practical means of minimizing water quality degradation shall be implemented so any lowering of water quality is limited to the shortest time feasible. In the Lahontan region, Lake Tahoe and Mono Lake are designated as ONRWs. As noted in the Tier One discussion, the use of aquatic pesticides for resource protection and pest management will be allowed only if the conditions of the exemption criteria are met. These conditions spell out the requirements and steps needed to ensure that lowering of water quality is limited to the shortest time feasible. If a pesticide application project is proposed in an ONRW, like Lake Tahoe, the project must satisfy all applicable project criteria, which include compliance with water quality objectives specific to the affected waterbody and receiving water limitations. Permits that are issued to regulate the aquatic pesticide discharges will incorporate numeric receiving water limitations where State or USEPA-based water quality objectives or criteria are available. Additionally, the exemption criteria require implementation of control measures to limit the spatial extent and the temporal impact of the discharge. Compliance with these limitations assures that water quality is sufficient to support beneficial uses. We believe the antidegradation discussions provided above justify any lowering of water quality consistent with Tiers One, Two, and Three of the test.

Page 38:

a) Application of aquatic pesticides by definition involves a discharge of chemicals into surface waters, including pesticide active ingredients and non-active "inert" ingredients such as emulsifiers and dispersants that may be present in the pesticide formulation. The use of aquatic pesticides may result in the temporary violation of water quality standards, including toxicity, and may temporarily impact beneficial uses, such as Cold Freshwater Habitat (COLD), Water Contact Recreation (REC-1), and Municipal and Domestic Supply (MUN). If not removed following herbicide treatments, dead plant

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material can affect water quality by lowering dissolved oxygen levels. Different pesticide products vary in their respective persistence, toxicity, and environmental fate. The Basin Plan amendment may allow temporary exceedence of narrative and numeric water quality objectives for projects given an exemption to the prohibition on aquatic pesticides.

Individual aquatic pesticide projects will be subject to environmental documentation and review requirements, and evaluation under the proposed Basin Plan amendments, on an individual project (or programmatic) basis. For water quality impacts, this review and evaluation must take into account persistence in waters and sediments, toxicity to humans and other organisms, and environmental fate including the potential for bioaccumulation. The criteria for evaluating projects under the proposed Basin Plan amendments stipulate aquatic pesticide applications cause no long-term impairment of beneficial uses. The criteria require that alternatives to pesticide use must be thoroughly evaluated and implemented when feasible. The criteria also require that the lowest possible effective pesticide concentration be used, that the smallest practicable area be treated, that a monitoring plan accepted by the Water Board be followed, and that BMPs be identified and implemented as appropriate to minimize water quality impacts. Even with these requirements, the temporary violation of water quality objectives cannot necessarily be avoided in each and every project.

Page 45:

c) The proposed action has the potential to result in environmental effects that may adversely affect human beings, either directly or indirectly. Pesticide projects allowed under this amendment may cause a temporary water supply loss when source waters are affected by pesticide application. Project proponents are required to coordinate with potentially affected water purveyors and provide potable drinking water where necessary.

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Page 52:
MANDATORY FINDINGS OF SIGNIFICANCE – ENVIRONMENTAL EFFECTS THAT WILL CAUSE SUBSTANTIAL ADVERSE EFFECTS ON HUMAN BEINGS, EITHER DIRECTLY OR INDIRECTLY The Water Board finds that the proposed action may indirectly result in substantial adverse effects on humans. The potential impacts to humans are indirect. Pesticide projects allowed under this amendment may cause a temporary water supply loss when source waters are treated, either to control an infestation of invasive species, harmful algal blooms, biofouling of a water intake system, or another circumstance. Without the pesticide treatment, the effects of the target species may prove worse than the temporary effects of pesticide use. In these pesticide projects, the proposed amendment's exemption criteria require that project proponents coordinate with potentially affected water purveyors and provide potable drinking water where necessary. That coordination should reduce the potential impact to water supplies, but the agreement reached by the coordinating parties is the purview of the water suppliers [CCR Section 15091(a)(2)].