CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MEETING OF JANUARY 12-13, 2022
VIDEO/TELECONFERENCE

ITEM 2
TAHOE KEYS PROPERTY OWNERS ASSOCIATION, TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST, SOUTH LAKE TAHOE **A. RESOLUTION FOR CERTIFICATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT FINAL ENVIRONMENTAL IMPACT REPORT FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST** **B. RESOLUTION FOR GRANTING AN EXEMPTION TO THE AQUATIC PESTICIDE DISCHARGE PROHIBITION IN THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST** **C. WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST** **D. MITIGATION MONITORING AND REPORTING PROGRAM FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST**

CHRONOLOGY	
August 11, 2015	Tahoe Keys Property Owners Association (TKPOA) held the Tahoe Keys Weed Management Plan Expert Panel and Public Workshop.
April 2018	Joint Tahoe Regional Planning Agency (TRPA) Initial Environmental Checklist and California Environmental Quality Act (CEQA) Initial Study completed for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test Project (Project).
July 25, 2018	TKPOA submits initial NPDES Permit and Basin Plan prohibition exemption applications for the Project.
June 17, 2019	Notice of Preparation (NOP) released for the Joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Project.
June 25, 2019 - July 16, 2019	Three CEQA Scoping Meetings for the Project conducted.
September 19, 2019	Lahontan Water Board Informational Workshop regarding the Project.
July 6, 2020	Lahontan Water Board posts and distributes a Notice of Availability of the Draft EIR/EIS initiating a 60-day public comment period.

CHRONOLOGY	
July 22, 2020 – August 12, 2020	The Lahontan Water Board and the TRPA accept oral comments regarding the Draft EIR/EIS during two video-conference public meetings hosted by the TRPA.
November 19, 2020	Lahontan Water Board Informational Workshop regarding the Project.
September 15, 2021	Lahontan Water Board posts and distributes a Public Notice informing agencies and interested parties of the availability of the Tentative Resolution Granting a Basin Plan Prohibition Exemption, Tentative Waste Discharge Requirements and NPDES Permit, and Tentative Order establishing a Mitigation, Monitoring and Reporting Program initiating a 45-day public comment period.
December 9, 2021	Lahontan Water Board posts and distributes a Public Notice informing agencies and interested parties of the public hearing for the NPDES Permit and consideration of the resolution certifying the Final EIR/EIS, the resolution granting an exemption to the Basin Plan's aquatic pesticide discharge prohibition, and the Mitigation Monitoring and Reporting Program at the January 12-13, 2022 Lahontan Water Board meeting.

BACKGROUND

The Tahoe Keys is a residential development in South Lake Tahoe and is situated on 372 acres of land and artificial waterways with access (West and East Channels) to Lake Tahoe. The artificial waterways, collectively referred to as the Tahoe Keys Lagoons, consist of three main water features: the Main Lagoon, the Lake Tallac Lagoon, and the Marina Lagoon. The Tahoe Keys Property Owners Association (TKPOA) is responsible for maintaining the homeowner-owned portions of the Tahoe Keys Lagoons (i.e., the Main Lagoon and portions of the Marina Lagoon).

The nature of the Tahoe Keys Lagoons supports significant aquatic weed growth that TKPOA has been attempting to control with harvesting and other mechanical control methods since the mid-1980s. TKPOA's efforts have and continue to target three aquatic weed species: Eurasian watermilfoil (*Myriophyllum spicatum*), curlyleaf pondweed (*Potamogeton crispus*), and coontail (*Ceratophyllum demersum*). Of the three target species, Eurasian watermilfoil and curlyleaf pondweed are invasive species. Aquatic plant surveys (2014, 2015, 2016, 2017) show that invasive aquatic weed populations in the Tahoe Keys Lagoons have been growing rapidly with 85 percent to 90 percent of the available wetted surface in the lagoons infested with invasive aquatic weeds. The invasive aquatic weeds have also become established within Lake Tahoe itself near the West and East Channels. Lake Tahoe is a designated Outstanding National Resource Water (ONRW) for its recreational and ecological value.

BACKGROUND

Water Board Order No. R6T-2014-0059 requires TKPOA to develop and implement a Non-Point Source Water Quality Management Plan (NPS Plan) and an Integrated Management Plan (IMP) for aquatic weed management. The NPS Plan focuses on land-based nutrient sources that are contributing to aquatic weed growth, while the IMP is intended to identify methods that optimize aquatic weed management within the lagoons. Water Board Order No. R6T-2014-0059 currently allows only non-chemical methods for managing aquatic weeds.

TKPOA has developed and has been implementing the NPS Plan and IMP. To date, TKPOA's activities have been limited in their effectiveness and TKPOA is proposing an Aquatic Weeds Control Methods Test Project (Project) to develop information that will be used in updating its IMP. The three-year Project will test chemical and non-chemical treatment methods, including a one-time discharge of aquatic herbicides early in the growing season of Year 1, to evaluate the ability of each method and combination of methods to rapidly knock down invasive aquatic weed infestations to levels where any re-emergence of invasive aquatic weeds can subsequently be managed with non-chemical methods. Specifically, the Project will evaluate several aquatic weed control methods suitable for large-scale treatments to include Ultraviolet-C light (UV-C) treatments, Laminar Flow Aeration (LFA) treatment, the aquatic herbicides triclopyr and endothall, and several methods suited for small-scale treatment for any re-emergence to include bottom barriers and suction-assisted diver hand pulling.

The Water Board will consider four items for Board adoption. The four items include:

- A resolution certifying the Final Environmental Impact Report (Final EIR) for the Project.
- A resolution granting an exemption to the Basin Plan's aquatic pesticide discharge prohibition
- An NPDES permit for the discharge of residual aquatic herbicides, lanthanum-modified clay, and rhodamine dye.
- A Mitigation Monitoring and Reporting Program.

ISSUES

Final Environmental Impact Report (Final EIR)
Has the Final EIR been completed in compliance with the California Environmental Quality Act?

Basin Plan Prohibition Exemption
Does the Project satisfy the exemption criteria for a non-time sensitive, non-emergency project?

NPDES Permit
Does the permit contain the appropriate measures to be protective of water quality and beneficial uses?

ISSUES

Mitigation Monitoring and Reporting Program
Does the program monitor and report on the required protection measures to sufficiently mitigate and avoid significant environmental effects?

DISCUSSION

The Project is a test project intended to produce information regarding the efficacy of chemical and non-chemical treatment methods in quickly reducing invasive aquatic weed infestations within the Tahoe Keys Lagoons to levels that can subsequently be managed through non-chemical methods. As noted, above, the Project includes the one-time application of two aquatic herbicides, and using UV-C light and LFA methods during Year 1 of the Project. Treatment during Years 2 and 3 will consist of only non-chemical control methods. The information obtained through the Project may be used by TKPOA to develop a new IMP for aquatic weeds in the Tahoe Keys Lagoons. The new plan will be subject to its own regulatory and environmental review processes, separate from those that are focused on the Project.

There are a number of key themes that are presented in the comments received through the public review process for the Project. In addition to general support for the Project, and general opposition to the Project because of the use of aquatic herbicides, two other primary themes include:

- Commenters indicated that the Basin Plan prohibition exemption criteria allowing use of aquatic pesticides remains unsatisfied since it has yet to be demonstrated that non-chemical methods are inappropriate/ineffective to meet project goals and additional testing of non-chemical methods should occur before testing of chemical methods.

  In contrast, other commenters indicated that the ineffectiveness of non-chemical methods to meet project goals have been clearly demonstrated and that the exemption criteria are satisfied.

- Commenters indicated that applications of aquatic herbicides in an ONRW is inconsistent with federal and state antidegradation policies.

  In contrast, other commenters indicated that the antidegradation analysis appropriately evaluated and determined that waters will be maintained and protected.

Basin Plan Prohibition Exemption Criteria - The proposed resolution and associated staff report regarding an exemption to the Basin Plan's aquatic pesticide prohibition supports granting an exemption to the prohibition. The Project's goals are to evaluate the effectiveness of multiple invasive aquatic weed treatment methods, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will: 1) quickly reduce the invasive aquatic weed biomass, 2) bring infestation to a level that can be managed by non-chemical treatment methods, 3) improve water quality, 4) improve recreational benefits, and 5) reduce re-

DISCUSSION

infestation. Testing the chemical and non-chemical methods concurrently, as proposed, is necessary to reduce the variability testing/environmental conditions and produce comparable results. Therefore, limiting the Project to only non-chemical methods will fail to meet or prove ineffective at meeting the Project's goals, one of which is to evaluate all of treatment methods TKPOA is considering for future use. Furthermore, non-chemical methodologies have failed to address aquatic invasive species, and other non-chemical methodologies are experimental.

Anti-degradation Policies – The NPDES Permit includes findings discussing how the Project is consistent with federal and state antidegradation policies. As discussed in Appendix G, the federal and state antidegradation policies require that water quality within ONRW be "maintained and protected." Appendix G also discusses how "maintained and protected" does allow for some changes in water quality, provided that they are "temporary and short-term." While "temporary and short-term" is not defined in federal or state regulations, the USEPA Water Quality Standards Handbook notes that, "EPA's view of temporary is weeks and months, not years." Appendix G provides information demonstrating how any water quality changes caused by the Project will last weeks to months, and that beneficial uses will be protected.

SUSTAINABLE GROUNDWATER MANAGEMENT ACT BASINS

For purposes of the Sustainable Groundwater Management Act, the California Department of Water Resources identifies the following groundwater basin in El Dorado County, along with priority, near the discharge location within the Lahontan Region.

Priority	Groundwater Basin
Medium	Tahoe Valley-Tahoe Valley South (6-005.1)

Source: Sustainable Groundwater Management Act Basin Prioritization

CLIMATE CHANGE RESPONSE

The proposed Project is consistent with Resolution R6T-2019-0277, the Water Board's Climate Change Mitigation and Adaptation Strategy, in the following key resources area (1) Protection of Wetlands, Floodplains, and Headwaters. More specifically, the proposed Project will help to address proliferation of aquatic weed growth in Tahoe Keys and potential further spread to Lake Tahoe—an issue that may be exacerbated by increasing water temperatures brought on by a changing climate. By addressing the aquatic weed growth in the Tahoe Keys through implementation of the proposed Project, adjacent wetland systems to Lake Tahoe will receive additional protection against the continued spread of aquatic invasive weeds and thereby retain more of their natural wetland function and benefits to water quality that functionality provides.

PUBLIC OUTREACH/INPUT

There has been significant public outreach regarding the actions before the Water Board. For the Final EIR/EIS, initial public outreach began in October 2017 with initiating Tribal Consultation, followed by the June 17, 2019 release of a NOP of an EIR/EIS for the Project, which started a 45-day public comment period. During the 45-day NOP public comment period, three scoping meetings were held at different locations around Lake Tahoe where participants were also able to provide comments. On July 6, 2020, a Draft EIR/EIS was released for a 60-day public comment period. During the 60-day comment period, the Lahontan Water Board and TRPA accepted oral comments regarding the Draft EIR/EIS during two video-conference public meetings hosted by the TRPA. The Lahontan Water Board has also held two informational workshops (September 2019 and November 2020), in addition to several informational meetings the TRPA hosted during the EIR/EIS development and review process.

For the Basin Plan prohibition exemption, the NPDES Permit, and the Mitigation Monitoring and Reporting Program, the Lahontan Water Board released tentative documents, initiating a 45-day public comment period beginning on September 15, 2021 and lasting through November 1, 2021. On December 9, 2021, a Public Notice was released notifying agencies and interested parties of the January 12-13, 2022 Lahontan Water Board meeting when a public hearing would be held for the NPDES Permit and when the Lahontan Water Board would also be considering for adoption, a resolution certifying the Final EIR/EIS, a resolution granting an exemption to the Basin Plan's aquatic pesticide discharge prohibition, and an Order establishing a Mitigation Monitoring and Reporting Program for all mitigation and resource protection measures identified in the Final EIR/EIS.

PRESENTERS

Russell Norman, Lahontan Water Board, Water Resource Control Engineer
Robert Tucker, Lahontan Water Board, Senior Water Resource Control Engineer
Anna Garcia, Lahontan Water Board, Senior Engineering Geologist-Specialist
Jim Good, ESA, EIR/EIS Consultant

RECOMMENDATION

Water Board staff recommends, as proposed, the adoption of:

A. Resolution for Certification of the California Environmental Quality Act Final Environmental Impact Report for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test

B. Resolution for Granting an Exemption to the Aquatic Pesticide Discharge Prohibition in the Water Quality Control Plan for the Lahontan Region for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test

C. Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test

D. Mitigation Monitoring a Reporting Program for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test

ENCLOSURE	ITEM	BATES NUMBER
1	Water Board Proposed Resolution No. R6T-2022-PROPOSED, Certification of California Environmental Quality Act Final Environmental Impact Report for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test	**2 - 9**
2A	Water Board Proposed Resolution No. R6T-2022-PROPOSED, Granting an Exemption to the Aquatic Pesticide Discharge Prohibition in the Water Quality Control Plan for the Lahontan Region for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test	**2 - 33**
2B	Staff Report - Exemption to the Aquatic Pesticide Discharge Prohibition for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test	**2 - 39**
3	Water Board Order No. R6T-2022-PROPOSED, Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for the Tahoe Keys Property Owners Association Tahoe Keys Lagoons Aquatic Weed Control Methods Test	**2 - 57**
4	Water Board Mitigation Monitoring and Reporting Program No. R6T-2022-PROPOSED, Tahoe Keys Lagoons Aquatic Weed Control Methods Test	**2 - 179**
5	Response to comments regarding the Tentative Resolution Granting a Basin Plan Prohibition Exemption, Tentative Waste Discharge Requirements and NPDES Permit, and Tentative Order establishing a Mitigation, Monitoring and Reporting Program	**2 - 207**

ENCLOSURE 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LAHONTAN REGION

RESOLUTION R6T-2022-PROPOSED

CERTIFICATION OF CALIFORNIA ENVIRONMENTAL QUALITY ACT
FINAL ENVIRONMENTAL IMPACT REPORT FOR
THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region (hereafter Lahontan Water Board), finds that:

1. The Lahontan Water Board and Tahoe Regional Planning Agency (TRPA) prepared a joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to evaluate the environmental effects of the Tahoe Keys Lagoons Aquatic Weed Control Methods Test (Project), to support the granting of an exemption to a prohibition in the Water Quality Control Plan for the Lahontan Region (Basin Plan), and to identify potentially feasible alternatives and mitigation measures to reduce potentially significant impacts.
2. The Project is a 3-year test of aquatic weed control strategies in the Tahoe Keys Lagoons including the use of herbicide and non-herbicide methods in year 1, followed by additional non-herbicide control strategies in years 2 and 3. TKPOA is proposing the Project to test control methods of three target aquatic weeds: Eurasian watermilfoil, curly-leaf pondweed, and coontail.
3. The Tahoe Keys Property Owners Association submitted an application to the Lahontan Water Board to apply aquatic herbicides in the Tahoe Keys Lagoon and Lake Tallac as part of the Project. The Tahoe Keys Property Owners Association submitted an application for the Project to Tahoe Regional Planning Agency (TRPA).
4. The Lahontan Water Board will consider a resolution granting an exemption to the prohibition on discharges of pesticides to surfaces waters. The Water Board will also consider whether to issue individual Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for discharges from Tahoe Keys Lagoons Aquatic Weed Control Methods Test (NPDES permit). Issuance of a National Pollutant Discharge Elimination System Permit is statutorily exempt from the provisions of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000, et seq.), pursuant to section 13389 of the California Water Code. The CEQA analysis was conducted pursuant to the requirements specified in the Basin Plan for consideration of an exemption to the prohibition on the discharge of pesticides to surface or groundwaters in the Lahontan Region.
5. The Lahontan Water Board is the lead agency under the California Environmental Quality Act (CEQA). TRPA is the lead agency under the Tahoe Regional Planning Compact (Public Law 96-551) and 1980 revision, Code of

Ordinances and Rules of Procedure. The Lahontan Water Board and TRPA have prepared a joint environmental analysis and are co-lead agencies. The EIR/EIS fulfills the Lahontan Water Board's CEQA compliance requirements for granting an exemption to the prohibition in the Basin Plan on the discharge of pesticides to surface or groundwaters in the Lahontan Region.

6. The EIR/EIS was prepared in accordance with CEQA, Public Resources Code, section 21000 et seq., as amended; and the Guidelines for Implementation of CEQA, Title 14, California Code of Regulations, section 15000 et seq.
7. The EIR/EIS evaluates the potential environmental impacts of the Project and three alternatives: Action Alternative 1 (use of non-chemical methods), Action Alternative 2 (dredging and replacement of substrate), and the No Action Alternative (continuance of existing weed control strategies).
8. In October 2017, Lahontan Water Board sent a formal notification of a decision to undertake a project and notification of consultation opportunity to California Native American tribes pursuant to Public Resources Code section 218080.3.1. United Auburn Indian Community (UAIC) requested consultation on the Project. In December 2018, Lahontan Water Board sent new consultation requests to three additional tribes, none of which requested consultation. UAIC provided recommendations for mitigation measures, which included an unanticipated discovery plan, worker awareness training, and a tribal cultural resources awareness brochure. Lahontan Water Board staff incorporated these measures into the Mitigation Monitoring and Reporting Program (MMRP) and concluded consultation.
9. Lahontan Water Board staff prepared an Initial Study for the Project and TRPA staff prepared an Initial Environmental Checklist; these documents indicated the possibility of potentially significant impacts. Based on this early analysis the co-lead agencies determined that an EIR/EIS should be prepared.
10. The TRPA and Lahontan Water Board, via an independent third party, initiated a stakeholder engagement process to assess stakeholder interests, themes, and questions surrounding aquatic weed control and water quality issues potentially associated with the treatment of aquatic weeds in the Tahoe Keys. This stakeholder process included interviews, public workshops, formation of a stakeholder committee and consultation circle, and development of a project website. Results of this process informed the Project purpose, scope, and alternatives development.
11. On June 17, 2019, the Lahontan Water Board submitted a Notice of Completion and Environmental Document transmittal and a Notice of Preparation (NOP) of a Draft Environmental Impact Report/Environmental Impact Statement (DEIR/DEIS) to the California Office of Planning and Research State Clearinghouse (SCH). The SCH distributed the NOP to reviewing agencies. The NOP was circulated to reviewing agencies and the public from June 17, 2019 to

August 2, 2019 for a 45-day comment period. Additional distribution of the NOP included mailing to interested persons, distribution via electronic subscriptions lists (lyris lists), posting to agency and Project webpages, posting with the El Dorado County Clerk, and publishing in local newspapers.

12. Lahontan Water Board and TRPA staff held three scoping meetings at locations around Lake Tahoe: June 25, 2019 in South Lake Tahoe, CA, June 26, 2019 in Stateline, NV, and July 16 in Kings Beach, CA.

13. A Scoping Report was prepared summarizing the Project purpose and need, specific goals and performance measures for the Project, alternatives to be evaluated, the public engagement and scoping process, and a summary of comments received during scoping. The Lahontan Water Board received comments from 44 commenters during scoping, with approximately 300 comments recorded. The NOP and Scoping Report are included as appendices to the Draft EIR/EIS.

14. On July 6, 2020, the Lahontan Water Board posted to agency and Project webpages a Notice of Availability (NOA) of the Draft EIR/EIS and public comment period from July 6, 2020 through September 3, 2020, for a 60-day public comment period. Additional distribution of the NOA included mailing to interested persons, distribution via electronic subscriptions lists (lyris lists), posting with the El Dorado County Clerk, and publishing in the newspaper.

15. On July 6, 2020, the Lahontan Water Board sent the Draft EIR/EIS to and filed a Notice of Completion and Environmental Document Transmittal with the SCH, initiating a 60-day public review and comment period for the Draft EIR/EIS (SCH No. 2019060152) from July 6, 2020 to September 3, 2020. The SCH provided the Notice of Completion and Environmental Document Transmittal to state reviewing agencies.

16. Two Lahontan Water Board informational workshops on the Project were held on September 19, 2019 and November 19, 2020. TRPA also held several informational meetings.

17. In addition to accepting written comments, the co-lead agencies accepted oral comment on the DEIR/DEIS through two video-conference public meetings hosted by TRPA on July 22, 2020 and August 12, 2020.

18. The Lahontan Water Board considered all timely submitted comments regarding the Draft EIR/EIS. Written responses to all substantive comments are provided in the Final EIR/EIS.

19. On September 15, 2021, the Lahontan Water Board provided public notice of availability of the NPDES permit MMRP, and resolution granting a Basin Plan exemption. These documents were posted on the Lahontan Water Board webpage, the Project webpage, and the notice of availability was distributed via the Project lyris list. The public review period for these documents was from

September 15, 2021 through November 1, 2021, for a 45-day public comment period.

20. Written responses to all substantive comments were posted to the Lahontan Water Board webpage 10 days in advance of the meeting to consider certification of the Final EIR/EIS.
21. The Final EIR/EIS reflects changes made in consideration of the comments received on the Draft EIR/EIS, as well as changes initiated by Lahontan Water Board and TRPA staff. The changes to the Final EIR/EIS also include clarifications and corrections that have been identified since circulation of the Draft EIR/EIS. The changes do not result in any new significant impacts to the environment, nor do the changes result in a substantial increase in the severity of an environmental impact.
22. On the basis of the whole record, the Project as described in the Draft EIR/EIS, with implementation of the mitigation measures described in the Final EIR/EIS, and in the MMRP (see Final EIR/EIS, Appendix B), would not result in any significant effects on the environment.
23. The Final EIR/EIS was presented to the Lahontan Water Board, and the Lahontan Water Board reviewed and considered the information contained in the Final EIR/EIS prior to adopting the Order.
24. The Final EIR/EIS has been completed in compliance with CEQA. The Final EIR/EIS, CEQA Findings (Attachment A), and MMRP, reflect the independent judgment and analysis of the Lahontan Water Board.
25. The Lahontan Water Board considered all testimony and evidence at a public meeting held by videoconference at the January 12-13, 2022 Board meeting and good cause was found to certify the Final EIR/EIS.
26. The Final EIR/EIS and the record of proceedings are available at the Lahontan Water Board's office, or by request.
27. In accordance with Title 14 of the California Code of Regulations, section 15094, the Lahontan Water Board will file a Notice of Determination with the Office of Planning and Research within five working days after deciding to approve the project.

THEREFORE, BE IT RESOLVED THAT:

1. The Lahontan Water Board finds on the basis of the whole record before it, that there is no substantial evidence that the project will have a significant effect on the environment and the attached Final EIR/EIS reflects the Lahontan Water Board's independent judgment and analysis.
2. The Lahontan Water Board hereby certifies the Final EIR/EIS for the Project.

CERTIFICATION

The Executive Officer hereby does certify that the foregoing is a full, true, and correct copy of the resolution duly and regularly adopted at a meeting of the Lahontan Regional Water Quality Control Board held on January 12-13, 2022.

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EXECUTIVE OFFICER

Attachment A: CEQA Findings

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LAHONTAN REGION

RESOLUTION R6T-2022-PROPOSED ATTACHMENT A

FINIDINGS OF FACT AS A LEAD AGENCY UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST

JANUARY 2022

I. INTRODUCTION

The California Environmental Quality Act (CEQA) (Pub. Res. Code § 21000 et seq.) and Guidelines for the Implementation of CEQA (Cal. Code Regs, tit. 14, § 15000 et seq.; hereafter CEQA Guidelines), provide that no public agency shall approve or carry out a project for which an environmental impact report (EIR) has been certified when one or more significant environmental effects of the project have been identified, unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. (CEQA Guidelines, § 15091, subd. (a); hereafter Section 15091(a)). These findings explain the disposition of each of the significant effects, including those that will be less than significant with mitigation. The findings must be supported by substantial evidence in the record.

There are three possible findings under Section 15091(a). The public agency must make one or more of these findings for each significant effect. The Section 15091(a) findings are:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test (Proposed Project).

2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

These findings are also intended to comply with the requirement that each finding by the Lahontan Water Board be supported by substantial evidence in the administrative record of proceedings, as well as accompanied by a brief explanation of the rationale for each finding. (Cal. Code Regs., tit. 14, § 15091, subds. (a), (b); see also Discussion following CEQA Guidelines, § 15091.) To that end, these findings provide the written, specific reasons supporting the Lahontan Water Board's decision under CEQA to implement the Proposed Project described in the Final EIR/EIS (SCH No. 2019060152). These findings are not merely informational, but rather constitute obligations that will become binding when the Lahontan Water Board approves the Proposed Project.

II. MITIGATION MONITORING AND REPORTING PROGRAM

Consistent with CEQA and the CEQA Guidelines, the Lahontan Water Board has prepared a mitigation monitoring and reporting program (MMRP) for the Project. (Pub. Resources Code, § 21081.6, subd. (a)(1); CEQA Guidelines, § 15097.) The Lahontan Water Board will use the MMRP to track compliance with mitigation measures imposed by the Lahontan Water Board.

III. FINDINGS

The Lahontan Water Board makes the following findings discussing the significant direct, reasonably foreseeable indirect, and cumulative effects of the Proposed Project. The Lahontan Water Board has analyzed the environmental effects of the Project as shown in the Final EIR/EIS (CEQA Guidelines, § 15091). The Lahontan Water Board's specific findings for potentially significant impacts and how the impacts may be reduced by mitigation are set forth in the Final EIR/EIS.

The following findings address each of Proposed Project's potentially significant effects in their order of appearance in the Draft EIR/EIS. For the purposes of CEQA Guidelines, Section 15091, the documents and other materials that constitute the record of proceedings upon which the Lahontan Water Board based its decision are held by the Lahontan Water Board, 2501 Lake Tahoe Blvd, South Lake Tahoe, CA 96150.

Mitigation measures are described in Section IV, following the Findings. There are no significant and unavoidable impacts nor cumulative impacts from implementation of the Project.

A. LESS THAN SIGNIFICANT IMPACTS WITH MITIGATION

The Final EIR/EIS identified potentially significant environmental impacts that absent mitigation would result from the implementation of the Proposed Project. Having considered the whole record, including comments received during the public review process, the Lahontan Water Board has eliminated or substantially reduced all significant environmental effects through the adoption of various mitigation measures and makes the following findings:

i. Impact EH-1 Herbicide Applicator Exposure and Health

Herbicide applicators could suffer health effects due to exposure during application of herbicides. Only the risks of acute exposure are pertinent since the limited testing period would ensure that no chronic exposures would occur.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

There is a risk to the health of workers handling and applying herbicide products unless precautions are taken to protect them. Endothall is toxic if inhaled, may be harmful if swallowed, and may cause skin irritation or serious eye damage. Triclopyr is not metabolized by humans but is excreted unchanged in the urine. Triclopyr does not pose an inhalation risk but can cause skin irritation or eye corrosion.

Given that the Proposed Project includes a one-time application of herbicides at several test sites, only the risks of acute exposure to the herbicides were evaluated since no chronic exposures over months or years are likely to occur as part of the Proposed Project. The potential acute effects of the herbicides were determined by a review of the available literature, as well as Safety Data Sheets from the herbicide manufacturers.

The registration labels and Safety Data Sheets for each herbicide product specify the proper methods for handling and applying the chemicals, personal protective clothing requirements, and other precautions to protect workers, all of whom must be certified by the State as qualified applicators.

Mitigation Measure EH-1, which is described following the Findings, would reduce potentially significant impacts by requiring that aquatic herbicide applications will be made only by a Qualified Applicator License holder and in accordance with label restrictions.

ii. Impact EH-2 Detectable Concentrations of Herbicides and Degradants in Receiving Waters

Significant impacts could occur if detectable concentrations of active ingredients and chemical degradants of herbicides proposed for testing persisted in lagoon waters. There is also a potential for excess discharge concentrations if an herbicide product were spilled.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Water quality degradation defined by detectable concentrations of discharged aquatic herbicides and their degradants could be significant if it persisted beyond weeks to months. Persistence of herbicides and their degradants could occur if excess herbicides were applied or if their breakdown was slower than expected based upon review of available literature. When an herbicide is applied to areas of dense aquatic vegetation, it rapidly kills the treated plants, and the decay of the dead vegetation results in oxygen depletion, which, in turn, can result in a loss of microbial activity and longer half-lives.

There is a potential for spills and accidents to occur which could result in excess discharge to waterways during transportation, handling, and application of herbicides.

As described in Section IV, potential impacts from accidental spills or overapplication are reduced to less than significant through Mitigation Measure EH-2, which requires preparation and implementation of a spill prevention and response plan, and through Mitigation Measure EH-6b which requires implementation of aeration technologies to improve low dissolved oxygen conditions and enhance aerobic decomposition of herbicide active ingredients.

iii. Impact EH-5 Short Term Increases in Aluminum Concentrations

Aluminum in sediments of the lagoons could be mobilized into the water column by project activities. If mobilized, it could affect aquatic life. The USEPA defines acute and chronic water quality criteria for the protection of aquatic life.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

The sediments in the Tahoe Keys lagoon bottom have pre-existing high concentrations of aluminum. Short-term increases of aluminum concentrations in lagoon water may occur in treatment areas during sediment disturbance caused by project activities such as installation, startup and removal of aeration systems, or installation and removal of bottom barriers and turbidity curtains. The potential for concentrations of aluminum to reach levels associated with toxicity to aquatic life is a function of the amount of turbidity in the water from disturbed sediment. Samples analyzed as part of the baseline study showed that disturbance of sediments could potentially result in total recoverable aluminum concentrations that exceed the short-term exposure criteria and cause harm to aquatic life.

As described in Section IV, potential impacts from elevated aluminum are reduced to less than significant through Mitigation Measures EH-5a that requires implementation of best management practices to reduce turbidity caused by sediment disturbance and conducting real-time turbidity monitoring during project activities.

iv. Impact EH-6 Harmful Algal Blooms

A risk exists that the dieback and decay of aquatic weeds from project activities, and subsequent release of nutrients to the waters of the lagoons could stimulate harmful algal blooms (HABs). The potential for impacts to occur depends on a host of conditions, the timing of herbicide applications, volume of plant biomass, water and nighttime air temperatures, stratification of the lagoons, and plant photosynthesis and respiration levels. If the Proposed Project increases HABs it would be considered a significant impact.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Environmental conditions in freshwater environments can lead to rapid increases in the biomass of single-celled photosynthetic bacteria (cyanobacteria), resulting in a HAB. HABs have been reported in Tahoe Keys lagoons in recent years, including 2017 to 2019. Past detections of cyanotoxins have reached caution levels at Tahoe Keys.

As a result of the Proposed Project, conditions may become increasingly favorable or less favorable for HABs. Because HABs are not always predictable and because the conditions that cause cyanobacteria to produce cyanotoxins are not well understood, there remains some uncertainty about whether the release of nutrients from aquatic weed treatments could increase the risk of HABs and potentially affect people and the environment. Continuation of the existing programs to monitor and warn people at Tahoe Keys when cyanotoxins are present will continue to be effective in protecting against any additional risks of exposure to cyanotoxins.

As described in Section IV, potential impacts from HABs are reduced to less than significant through Mitigation Measure EH-6a the timing and size of treatment areas, Mitigation Measure EH-6b use of aeration, and Mitigation Measure EH-6c use of lanthanum clay.

v. Impact WQ-5 Changes in Dissolved Oxygen

Rapid dieback of dense aquatic weed beds from herbicide applications or ultraviolet light (UV light) could result in significant changes to Dissolved Oxygen (DO) conditions within and near test sites. This could cause biochemical oxygen demand (BOD) from

decomposing plants to decrease DO concentrations during the normal growing season for aquatic plants. Herbicide products could also create short-term chemical oxygen demand during applications. Thresholds of concern for DO are established by several WQOs: minimum criteria of 8.0 mg/L at all times, a 9.5 mg/L minimum based on seven-day mean concentrations, an 80 percent saturation minimum, and a limit that DO shall not be depressed by more than 10 percent saturation.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Rapid dieback of dense aquatic weed beds from testing herbicide applications or UV light could result in significant changes to DO conditions within and near test sites. The primary concern is that biochemical oxygen demand (BOD) from decomposing plants could decrease DO concentrations during the normal growing season for aquatic plants, particularly given the lack of DO contributed from the photosynthesis of living plants. There is also a potential for herbicide products to create a short-term chemical oxygen demand during applications, although this is determined to be less of a concern than BOD from decomposing plants.

Based on information from other studies, any measurable changes in lagoon DO from herbicide applications would likely be restricted to within and adjacent to the test sites, and no effect would be expected on DO in Lake Tahoe. Laminar Flow Aeration (LFA) tests sites may also have improved DO conditions due to increased water circulation and improved low oxygen conditions that characterize the deep portions of the water column during summer thermal stratification.

As described in Section IV, potential impacts from changes in dissolved oxygen concentrations are reduced to less than significant through Mitigation Measure WQ-5a the timing and limited extent of treatment areas, and Mitigation Measure WQ-5b requiring the use of aeration after plant dieback.

vi. Impact WQ-6 Increases in Total Phosphorous

Short-term increases in lagoon water total phosphorus (TP) concentrations could result from Proposed Project activities such as aeration system installation and operation, and from decaying aquatic plants during and after UV light or herbicide treatments. WQOs specify an annual average or 90 percent maximum criterion of 0.008 mg/L for total phosphorus.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Short-term increases in lagoon water total phosphorus concentrations could result from sediment disturbance during LFA installation, or during the initial operation of LFA systems circulating deep waters to the surface. A temporary increase in TP in the water column is expected during the weeks following aquatic plant dieback from herbicide treatment. Release of phosphorus from decaying aquatic plants to the water column could also be accelerated during and after UV light application, which could increase concentrations during those periods.

Increased TP in the water column within and adjacent to treatment areas is expected due to remineralization processes that are likely to occur concurrent with the decomposition of plants at test sites. While not all of the TP content of decomposing plants would be available in the water column, it is likely that perhaps 50 percent of the TP would transition into the water column during decomposition, with most of this remineralization likely occurring within the first 20 days after plant dieback (Walter 2000). The potential internal increases in TP from project activities would be a concern in the lagoons both for compliance with WQO criteria and also for increased productivity of phytoplankton and risk of HABs.

Because herbicide and UV light treatments would prevent the plants from reaching full biomass, there would be a reduction in the transfer of TP from plant tissues to the lagoon water that would otherwise occur when the plants naturally die back in the fall, so overall TP loading from decomposing plants would not increase, accumulate with impacts from other projects, or contribute to a declining trend or affect an already degraded resource.

As described in Section IV, potential impacts from changes in total phosphorus concentrations are reduced to less than significant through Mitigation Measure WQ-6a the timing and limited size of treatment areas.

vii. Impact WQ-7 Increases in Total Nitrogen

Short-term increases in lagoon water total nitrogen (TN) concentrations could result from Proposed Project activities such as aeration system installation and operation, and from decaying aquatic plants during and after UV light or herbicide treatments. The WQOs specify an annual average or 90 percent maximum criterion of 0.15 mg/L for total nitrogen.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Short-term increases in lagoon water total nitrogen concentrations could result from sediment disturbance during LFA installation, or during the initial operation of LFA systems circulating deep waters to the surface. Release of nitrogen from decaying aquatic plants to the water column could also be accelerated during and after weed control treatments, which could increase concentrations during those periods but lead to lower concentrations from aquatic plant dieback in the fall. Long term, a reduction in nitrogen release from decaying plants would be accomplished if dense aquatic weed beds are successfully treated.

Increased TN in the water column is expected due to remineralization processes that are likely to occur concurrent with the decomposition of plants at test sites. While not all of the TN content of decomposing plants would be available in the water column, it is likely that perhaps 60 percent of the TN would transition into the water column during decomposition, with most of this remineralization likely occurring in the first two to three weeks. In the West Lagoon, increases in TN in the water column would likely occur, and as a colimiting nutrient with phosphorus, TN increases would be expected to increase the abundance of phytoplankton in the water column. The degree of phytoplankton response is likely to correlate with the amount of nutrient uplift associated with plant decomposition and TN remineralization, and the amount of TN remineralization is expected to correlate with the amount of aquatic plant biomass that is treated at any given time. With herbicide treatments proposed to occur in the late spring when aquatic plants are early in their growth and biomass is minimal, and when the water is still cool from snowmelt runoff and low nighttime temperatures, the risk of nutrient uplift resulting in algal blooms (including HABs) can be minimized. Similar to TP, the lack of correlation between TN concentrations and indicators of phytoplankton biomass in Lake Tallac suggests that an uplift in TN concentrations from plant decay presents less of a risk for algal blooms than in the West Lagoon.

A temporary increase in TN in the water column is expected during the weeks following aquatic plant dieback from herbicide treatment.

Because herbicide and UV light treatments would prevent the plants from reaching full maturity, there would be reduction in the release of nitrogen from plant tissues to the lagoon water compared to when full-grown plants naturally die back in the fall, so overall TN loading from decomposing plants would not increase, accumulate with impacts from other projects, or contribute to a declining trend or affect an already degraded resource.

As described in Section IV, potential impacts from changes in TN concentrations are reduced to less than significant through Mitigation Measure WQ-7a the timing and limited extent of treatment areas.

viii. Impact AQU-1 Effects to Non-Target Macrophytes

Non-target macrophyte (aquatic plant) species could be affected by direct contact with herbicides, through exposure to UV light treatments, or through implementation of some

Group B methods that will be implemented following Group A treatments. The threshold of significance for this issue area would be a substantial change or reduction in the diversity or distribution of the non-target macrophyte community.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Native aquatic plant species in the West Lagoon include leafy pondweed (Potamogeton foliosus), nitella (Nitella sp., a macroalga), elodea (Elodea canadensis), and Richard's pondweed (P. richardsonii) (TKPOA 2019). Native aquatic plants in Lake Tallac include most of the same species (Richard's pondweed is not known to occur); in addition, watershield (Brasenia schreberi) is found along the margins.

The application of aquatic herbicides can directly affect non-target plant species due to direct contact with the herbicide within the designated treatment site or adjacent open water areas. Existing information on the selectivity of the proposed aquatic herbicides, including manufacturer's labels and peer reviewed literature, was used to evaluate their potential to impact non-target aquatic plants. The magnitude of short-term impacts to these species from herbicides depends on the herbicide applied, with endothall being a less-selective contact herbicide that would likely result in the greatest impacts to non-target species. Tryclopyr herbicide is selective to Eurasian watermilfoil and is not reported to have lethal effects on the non-target macrophytes known to occur in the lagoons. The extent of herbicide-only sites is 13.3 acres, or 7.7percent of the lagoons, of which 8.2 acres or less than five percent are proposed for application of endothall.

Potential direct effects to non-target macrophyte species could occur through the use of UV light treatments and implementation of some Group B methods. The use of UV light and bottom barriers can be non-selectively lethal to non-target aquatic plants and could result in changes to community composition.

As described in Section IV, potential impacts to non-target aquatic macrophytes are reduced to less than significant through Mitigation Measure AQU-1 spring macrophyte surveys. These surveys will result in adjustment of the test sites to avoid areas dominated by native or non-target plant communities.

ix. Impact AQU-3 Effects on Sensitive Aquatic Macrophyte

Watershield, a 2B.3 CRPR sensitive species, is known to occur in Lake Tallac where endothall herbicide treatments are proposed. The threshold of significance for this issue area would be a substantial reduction in watershield biovolume in Lake Tallac below levels measured in the most recent pre-project surveys.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

No aquatic plant species occur in the vicinity of the Tahoe Keys lagoons that are identified by TRPA as sensitive, or which are listed under federal or state Endangered Species Acts (ESA). The primary sensitive macrophyte species of concern in the Project area is watershield, a California Native Plant Society (CNPS) 2B.3 ranked sensitive plant species that is known to occur in Lake Tallac. Plants ranked 2B are considered rare, threatened or endangered in California but more common elsewhere, and plants with a threat rank of 3 are considered "not very threatened in California." Watershield has not been found in the Tahoe Keys lagoons. There is potential for herbicides to impact watershield in Lake Tallac. The abundance of watershield in macrophyte surveys from Lake Tallac has ranged from 0-percent to 32- percent since monitoring began in 2015.

As described in Section IV, potential impacts to sensitive aquatic macrophyte communities are reduced to less than significant through Mitigation Measure AQU-1 spring macrophyte surveys. Spring macrophyte surveys are required to adjust testing locations to better target dense beds of target species and avoid native, non-target and sensitive plant communities.

x. Impact AQU-4 Changes in Aquatic Macrophyte Community Composition

Potential direct and indirect effects to the aquatic macrophyte community could occur as the result of the Project, including both Group A and Group B methods. The threshold of significance for this issue area would be a substantial change or reduction in the diversity or distribution of the non-target macrophyte community.

Finding

Changes or alterations have been required in, or incorporated into, the Proposed Project that avoid or substantially lessen the significant effects on the environment. (Pub. Resources Code, § 21081, subd. (a)(1); CEQA Guidelines, § 15091, subd. (a)(1).)

Rationale

Native aquatic plant species in the West Lagoon include leafy pondweed (Potamogeton foliosus), nitella (Nitella sp., a macroalga), elodea (Elodea canadensis), and Richard's pondweed (P. richardsonii) (TKPOA 2019). Native aquatic plants in Lake Tallac include most of the same species (Richard's pondweed is not known to occur); in addition, watershield (Brasenia schreberi) is found along the margins of Lake Tallac.

The application of aquatic herbicides can directly affect non-target plant species due to direct contact with the herbicide within the designated treatment site or adjacent open water areas. Existing information on the selectivity of the proposed aquatic herbicides, including manufacturer's labels and peer reviewed literature, was used to evaluate their potential to impact non-target aquatic plants. The magnitude of short-term impacts to these species from herbicides depends on the herbicide applied, with endothall being a less-selective contact herbicide that would likely result in the greatest impacts to non-target species. Tryclopyr herbicide is selective to Eurasian watermilfoil and is not reported to have lethal effects on the non-target macrophytes known to occur in the lagoons. The extent of herbicide-only sites is 13.3 acres, or 7.7percent of the lagoons, of which 8.2 acres or less than five percent are proposed for application of endothall.

Potential direct effects to non-target macrophyte species could occur through the use of UV light treatments and implementation of some Group B methods. The use of UV light and bottom barriers can be non-selectively lethal to non-target aquatic plants and could result in changes to community composition.

As described in Section IV, potential impacts to non-target macrophyte community composition are reduced to less than significant through Mitigation Measure AQU-1 spring macrophyte surveys. These surveys will result in adjustment of the test sites to avoid areas dominated by native or non-target plant communities.

IV. MITIGATION MEASURES

A. Environmental Health

Mitigation Measure EH-1 Applicator Qualifications

Herbicide applications must be performed only by Qualified Applicator License (QAL) holders. QAL holders have completed extensive annual training to minimize any potential risks, including the use of proper personal protective equipment, and they would follow NPDES permit requirements and product label specifications.

Mitigation Measure EH-2 Spill Prevention and Response Plan

A spill prevention and response plan developed by a QAL holder must be implemented by a QAL holder to minimize and contain any spills during herbicide mixing and application. The spill prevention and response plan must be submitted for review as required by permitting agencies and implemented at the work sites.

Mitigation Measure EH-5a Best Management Practices

Best management practices to minimize sediment disturbance must be implemented. Turbidity will be monitored to ensure that sediment disturbance and the consequent potential for mobilization of aluminum into the water column is minimized.

Mitigation Measure EH-6a Timing and Size of Treatments

Spring aquatic plant surveys are required to select final treatment times and locations. The locations of test sites would be adjusted as needed to ensure that the targeted species are present for each herbicide application and ultraviolet light test, and areas dominated by native plant communities are avoided. The treatment area would be as small as possible given the objectives of the Proposed Project. The herbicide and UV treatment areas represent a small percentage of the total lagoon area in the Tahoe Keys.

Herbicides must be applied in the late-spring or early summer when the plants are in their early stages of growth so that the volume of decomposing plant material is minimized. To minimize the biomass of plants killed by UV light treatment, an initial round of UV light treatment would be conducted in the spring to stunt plant growth so that plants would only be a few feet tall when they are treated again in the summer. Minimizing the volume of aquatic weeds that are killed will reduce the risk of HABs.

Mitigation Measure EH-6b Aeration

Aeration technologies such as LFA must be implemented at each herbicide test site after target aquatic weeds die back from the herbicide application. Aeration during plant decomposition would increase aerobic microbial degradation and reduce the risk of HABs by breaking up thermal stratification, reducing near-surface water temperature, and stabilizing pH conditions. The aeration systems would be continually operated until herbicide active ingredients and degradants are no longer detected above background concentrations.

Mitigation Measure EH-6c Lanthanum Clay

A bentonite clay product containing lanthanum (e.g., Phoslock) will be used to control cyanobacteria if a HAB is confirmed at a test site following dieback from herbicide or UV-C light treatment. Lanthanum clay will be applied if a HAB is confirmed at caution levels or higher, total phosphorus is elevated above control sites, and alkalinity of the water in the treatment area to be treated is greater than 20 mg/L. Lanthanum is a rare earth mineral with a strong affinity to bind with phosphorus. The product would be applied to the water surface at the test site where it would strip the water column of available phosphorus molecules while it settles to the bottom. The phosphorus would remain bound in the surface sediments and unavailable for growth of cyanobacteria or other phytoplankton, effectively starving the HAB of an essential nutrient.

B. Water Quality

Mitigation Measure WQ-5a: Timing and Limited Extent of Testing (changes in DO)

Treatments must be implemented in limited areas of the lagoons and early in the growing season, when plants are small, to minimize biomass decomposition and short-term DO impacts. Pre-treatment plant monitoring is required to select final treatment size and locations.

Herbicide applications must occur in the late spring or early summer when target weed species are in their early stages of growth and plant biomass is minimal, and the timing would be adjusted based on pre-application macrophyte surveys. This timing is expected to minimize the biomass of decaying vegetation, mitigating the effects of oxygen depletion and nutrient release that could occur from dieback of mature plants. Similarly, UV light applications would include an early-season treatment to stunt plant growth, reducing the decaying biovolume that could contribute to reduced DO in the summer.

The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce oxygen depletion at test sites.

Mitigation Measure WQ-5b Aeration

LFA or other aeration systems must be deployed in herbicide test sites after plant dieback to increase aerobic microbial degradation and offset the potential for BOD from plant decomposition that could cause low DO impacts. If real-time monitoring indicated that DO was not meeting permit requirements at an ultraviolet light test site, an LFA system would be deployed to aerate during the period of plant decay and ensure that DO impacts were not significant.

Mitigation Measure WQ-6a: Timing and Limited Extent of Testing (changes in TP)

Timing treatments to cause weed dieback early in the growing season when the plants are small, and the small portion of the lagoons to be treated will minimize biomass decomposition and short-term TP impacts. Pre-treatment plant monitoring is required to select final treatment size and locations.

Herbicide applications must occur in the late spring when target weed species are in their early stages of growth and plant biomass is minimal, and the timing would be adjusted based on pre-application macrophyte surveys. This timing is expected to minimize the biomass of decaying vegetation, mitigating the effects of nutrient release (phosphorus and nitrogen) that could occur from dieback of mature plants. Similarly, UV light applications would include an early-season treatment to stunt plant growth, reducing the decaying biovolume that could contribute to reduced TP in the summer.

The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce TP release from macrophytes at test sites.

Mitigation Measure WQ-7a: Timing and Limited Extent of Testing (increases in TN)

Timing treatments to cause weed dieback early in the growing season when the plants are small, and the small portion of the lagoons to be treated will minimize biomass decomposition and short-term TN impacts. Pre-treatment plant monitoring is required to select final treatment size and locations.

Herbicide applications would occur in the late spring when target weed species are in their early stages of growth and plant biomass is minimal, and the timing would be adjusted based on pre-application macrophyte surveys. This timing is expected to

minimize the biomass of decaying vegetation, mitigating the effects of oxygen depletion and nutrient (nitrogen and phosphorus) release that could occur from dieback of mature plants. Similarly, UV light applications would include an early-season treatment to stunt plant growth, reducing the decaying biovolume that could contribute to reduced TN in the summer.

The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce the release of TN from macrophytes at test sites.

C. Aquatic Biology and Ecology

Mitigation Measure AQU-1 Macrophyte Surveys

Mitigation Measure AQU-1 requires surveys of macrophytes in the spring prior to implementation of the treatments. Given that plant species occurrence and distribution varies from year to year in the lagoons and Lake Tallac, spring macrophyte surveys are required to adjust testing locations to better target dense beds of target species and avoid native, non-target and sensitive plant communities. Mitigation Measure AQU-1 is used as mitigation for Impacts AQU-1, AQU-3, and AQU-4.

To address Impact AQU-1

Information on species composition from spring macrophyte surveys would facilitate necessary adjustments to treatment locations to avoid non-target macrophytes. If it is necessary to relocate treatment sites, areas would be selected that are of similar size and depth and that maximize the percent cover of target aquatic weeds with minimal non-target macrophytes.

To address Impact AQU-3

Although the drift of endothall from the treatment sites in Lake Tallac may contact watershield, there is no published evidence that it would cause substantial adverse effects. Pre-treatment surveys will result in avoidance of watershield in Lake Tallac

To address Impact AQU-4

Information on species composition from spring macrophyte surveys would facilitate necessary adjustments to treatment locations to avoid non-target macrophytes. If it is necessary to relocate treatment sites, areas would be selected that are of similar size and depth and that maximize the percent cover of target aquatic weeds with minimal non-target macrophytes.

ENCLOSURE 2A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN REGION
PROPOSED RESOLUTION NO. R6T-2022-XXXX

GRANTING AN EXEMPTION TO THE AQUATIC PESTICIDE DISCHARGE PROHIBITION IN THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST

FOR

THE TAHOE KEYS PROPERTY OWNERS ASSOCIATION
CITY OF SOUTH LAKE TAHOE

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. The Tahoe Keys Property Owners Association (TKPOA) submitted information to the Water Board requesting an exemption to the prohibition on discharges of pesticides to surface waters contained in the 'Water Quality Control Plan for the Lahontan Region (Basin Plan) to use aquatic herbicides as part of the Tahoe Keys Lagoons Aquatic Weed Control Methods Test (hereafter referred to as the Project), in the Tahoe Keys Lagoons and Lake Tallac, in the City of South Lake Tahoe.

2. The abundant growth of invasive non-native plants in the Tahoe Keys Lagoons has caused several adverse effects to cold water ecosystems, impaired navigation, created potential health and safety risks, impaired fishing and aesthetic quality, and led to increased predation of native fish species by invasive fish species. Over the last decade, TKPOA has implemented a variety of non-chemical control methods in the Tahoe Keys Lagoons. However, due to the size, density and dominance of the infestation in the Tahoe Keys Lagoons, these control methods have produced limited results.

3. Lake Tahoe is designated as an Outstanding National Resource Water (ONRW). The Tahoe Keys Lagoons are hydraulically connected to Lake Tahoe. Aquatic Invasive Plants (AIP) infestations threaten Lake Tahoe's ecosystem, water quality, iconic clarity, and $5 billion recreation-based economy.

4. The Project is a multi-year test to evaluate the effectiveness of aquatic herbicide active ingredients (endothall and triclopyr) and two other non-chemical technologies (Laminar Flow Aeration (LFA) and Ultraviolet light range C (UV-C)) in reducing and controlling Eurasian Watermilfoil (EWM), and Curlyleaf Pondweed (CLP) in the Tahoe Keys Lagoons and Lake Tallac.

5. The goal of the Project is to test a range of large-scale and localized AIP control methods suitable for long-term management of AIP, to determine what combination of methods within the test area will: 1) quickly reduce the AIP biomass, 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce invasive weed re-infestation.

6. The Lake Tahoe Aquatic Invasive Species Coordination Committee's 2015 Aquatic Invasive Species Plan produced by University of Nevada, Reno ranks

the Tahoe Keys Lagoons as the top priority area to be addressed due to the magnitude of the invasive plant and fish infestations and the high recreational use of the area. Targeted AIP species are Eurasian Watermilfoil and Curlyleaf Pondweed. Recent studies in Lake Tahoe and TKPOA's mesocosm studies on the herbicides indicate that the multiple treatment methodologies to be evaluated by the Project have the potential to treat the target AIP species.

7. Test applications of aquatic herbicides will be made in year one of the Project, expected to begin in Spring 2022 or later. The application of the aquatic herbicides will be by California licensed pesticide applicators to a total of 16.9 acres between the Tahoe Keys Lagoons and Lake Tallac. The one-time herbicide application in year one may be followed by one or several non-chemical aquatic invasive plant (AIP) control methods and approaches, including selective hand-removal, bottom barriers and UV-C.

8. The Basin Plan contains prohibitions that apply to all surface water of the Lahontan Region. Chapter 4, section 4.1 of the Basin Plan specifies the following waste discharge prohibition: "The discharge of pesticides to surface or ground waters is prohibited." Exemptions to this prohibition may be allowed subject to the criteria detailed in the section entitled "Exemption Criteria for Aquatic Pesticide Use" in Chapter 4, section 4.1 of the Basin Plan. An exemption to the waste discharge prohibition for aquatic pesticide use may be granted by the Regional Board if all of the following findings are made: (a) The project is an eligible circumstance as described in the Basin Plan, and (b) The project satisfies all the applicable exemption criteria.

9. TKPOA submitted an exemption request to apply endothall and triclopyr in the Tahoe Keys Lagoons and Lake Tallac. The exemption request and additional information submitted by TKPOA for endothall and triclopyr is consistent with the Basin Plan and is accepted by the Water Board for consideration of an exemption to the prohibition on the discharge of pesticides to surface water.

10. The use of aquatic herbicides in the Project is an eligible circumstance and satisfies all the applicable exemption criteria. Lahontan Water Board staff have prepared a document entitled "Exemption to the Aquatic Pesticide Discharge Prohibition for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test Staff Report" (Staff Report) that describes how the application of aquatic herbicides in the Project is eligible for an exemption and how the aquatic herbicide application meets the exemption criteria specified in the Basin Plan. The Staff Report was reviewed and considered by the Water Board before acting and used in determining that the use of aquatic herbicides in the Project is an eligible circumstance and satisfies all the applicable exemption criteria.

11. The pre-project biological monitoring program and the monitoring, reporting, and mitigation program for non-target communities was peer reviewed by an independent expert through the Tahoe Science Advisory Council. The review found "the proposed monitoring plan will provide ample evidence to assess

whether non-target communities have fully restored/recovered after the aquatic weed treatments."

12. This action is consistent with the Antidegradation Policy. Granting of the exemption alone will not result in a discharge and any degradation. Any authorized discharge under this exemption will be subject to waste discharge requirements. Antidegradation will be considered as part of the NPDES permit.

13. The Tahoe Regional Planning Agency (TRPA) is the Lead Agency for the Environmental Impact Statement (EIS) required by the Tahoe Regional Planning Compact and the Water Board is the CEQA Lead Agency for the Environmental Impact Report (EIR). Impacts and mitigation measures are set forth in the Final Environmental Impact Report/Final Impact Statement (FEIR/FEIS). The Water Board certified the FEIR at a meeting of the Board held on January 12-13, 2022. Mitigation measures identified in the FEIR/FEIS are required to be implemented as adopted by the Lahontan Water Board in the NPDES permit for aquatic herbicide residual discharges for the Project and in the Mitigation Monitoring and Reporting Program (MMRP). The mitigation measures have eliminated or substantially lessened all significant effects on the environment, where feasible. TKPOA must monitor or report on mitigation measure implementation, as described in the MMRP.

14. The Water Board has notified TKPOA and interested agencies and persons of its intent to adopt this Resolution by emailing a list server and posting on the Water Board's internet website

15. The Water Board, in a public meeting, heard and considered all comments related to this resolution.

16. The documents and other material, which constitute the record, are located at the Water Board office at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA.

THEREFORE BE IT RESOLVED THAT: The Water Board hereby grants to TKPOA an exemption to the Basin Plan Prohibition on the discharge of pesticides to surface waters for the application of aquatic herbicides (endothall and triclopyr) to the surface waters of the Tahoe Keys Lagoon and Lake Tallac for the Project.

CERTIFICATION

I, Michael R. Plaziak, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on January __, 2022.

_____
MICHAEL R. PLAZIAK, PG
EXECUTIVE OFFICER

ENCLOSURE 2B

Exemption to the Aquatic Pesticide Discharge Prohibition for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test

Staff Report

Report to the Lahontan Regional Water Quality Control Board
January 12-13, 2022 Board Meeting, Agenda Item No. 2

Executive Summary

The Tahoe Keys Lagoons are heavily impacted by aquatic invasive species including aquatic invasive plants (AIP). During 2014 - 2016, 85 to 95 percent of the wetted surface in the Tahoe Keys Lagoons were infested with AIP. AIP support other invasive species, such as warm water fish, degrade water quality, and adversely impact water contact and non-water contact recreation among other beneficial uses. Additionally, the heavy boating traffic in and out of the Tahoe Keys Lagoons presents a pathway to further spreading AIP into the main body of Lake Tahoe, increasing the risk of additional AIP infestations within Lake Tahoe. A 2015 report prepared by the University of Nevada, Reno Biology Department for the Lake Tahoe Aquatic Invasive Species Coordination Committee identifies the Tahoe Keys Lagoons as the highest priority area requiring an integrated treatment program for aquatic invasive species, including AIP species. The report recommends using a combination of non-chemical and chemical (herbicides) treatment methodologies given the extent of the AIP infestation within the Tahoe Keys Lagoons and the increasing risk the AIP infestation presents to the main body of Lake Tahoe.

Tahoe Keys Property Owners Association (TKPOA) has requested to implement a Control Methods Test (CMT) project to evaluate the effectiveness of multiple AIP treatment methodologies, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will: 1) quickly reduce the AIP biomass, 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce aquatic weed re-infestation. Concurrent evaluation of the chemical and non-chemical treatment methodologies is necessary in order to produce comparative results that will assist TKPOA, regulatory agencies, and others in making decisions regarding the combination of future treatment methodologies TKPOA will use to control AIP species. Future treatment methodologies may or may not include chemical treatments, and decisions made regarding the proposed CMT project do not obligate the regulatory agencies to approve chemical treatment methodologies in the future.

The proposed application of herbicides requires TKPOA to request an exemption from the Lahontan Water Board to the waste discharge prohibition for pesticides in the Water Quality Control Plan for the Lahontan Region (Basin Plan). The Basin Plan also includes exemption criteria that must be satisfied to apply pesticides, which include herbicides, to surface waters within the Lahontan Region, including Lake Tahoe.

Information and line of reasoning supporting a position that TKPOA's CMT project meets the Basin Plan's exemption criteria for pesticide use is provided below.

Section 1: Introduction

The Tahoe Key Lagoons are presently known to be infested with two different aquatic invasive plant (AIP) species. Eurasian watermilfoil became established within the lagoons during the 1980s. In 2003, curlyleaf pondweed was identified in the lagoons. As noted, above, nearly the entire wetted surface of the Tahoe Keys Lagoons was infested with AIP during 2014 -2016, and conditions have not improved.

In 2015, the University of Nevada, Reno Biology Department in collaboration with the Lake Tahoe Aquatic Invasive Species Coordination Committee, produced an Implementation Plan for Control of Aquatic Invasive Species within Lake Tahoe (AIS Plan). The AIS Plan discusses how both AIP species, Eurasian watermilfoil and curlyleaf pondweed, create habitat for other aquatic invasive species including warm fish species, adversely alter water quality (e.g., dissolved oxygen concentrations, nutrient cycling), and present boating navigational challenges.

The Lake Tahoe Aquatic Invasive Species Coordination Committee members provided input to the AIS Plan. The AIS Plan ranked the Tahoe Keys Lagoons as the highest priority to treat for aquatic invasive species in the Lake Tahoe Basin. The AIS Plan made the following recommendation

> "However, due to the notable abundance of invasive and nuisance native aquatic plants in this system, an integrated program for removal which not only includes the use of non-chemical removal efforts such as bottom barriers and diver assisted suction removal, but other actions such as the reduction of nutrient loads, plant fragment collection, and herbicide application is recommended to reduce unwanted plant biomass."

In 2017, the Tahoe Keys Property Owner Association (TKPOA) applied for an exemption to the Basin Plan's waste discharge prohibition on the use of pesticides in surface waters as either an Emergency and/or Time Sensitive project. TKPOA provided supplemental information for its 2017 application in July 2018, and substantially revised the request in December 2020, with supplements in April 2021 and June 2021 proposing use of pesticides (herbicides) in the Tahoe Keys West Lagoons in an integrated Control Methods Test (CMT).

In 2018, a collaborative effort began between the Lahontan Water Board and Tahoe Regional Planning Agency (TRPA) to produce a draft environmental document to comply with California Environmental Quality Act (CEQA) requirements for a Basin Plan prohibition exemption and for compliance with TRPA requirements. The collaborative effort altered the proposed CMT project and its goals to include Ultraviolet C light (UV-C) and Laminar Flow Aeration (LFA) treatment methodologies. Additionally, the use of herbicides was modified from a multi-year application to a single-year application with multiple test sites of both herbicides and non-chemical treatment methodologies. The CMT project, as now described in the draft environmental document, applies herbicides during Year 1 of the CMT project, and will apply non-pesticide treatment methodologies during Years 1 - 3 of the CMT project.

The CMT project also proposes the use of two non-herbicide chemicals/products, rhodamine is a dye to be used with the herbicides, but only for monitoring purposes. The other non-herbicide chemical is lanthanum modified clay that may be used to reduce phosphorus in the water column. The measure will be used if there is a suspected correlation between AIP decay from treatment, elevated phosphorus in the water column, and an increase in cyanobacteria. The lanthanum modified clay is designed to bind phosphorus in the water column.

The Water Quality Control Plan for the Lahontan Region (Basin Plan) contains prohibitions that apply to all surface waters of the Lahontan Region. Chapter 4, section 4.1 of the Basin Plan specifies the following waste discharge prohibition: “The discharge of pesticides to surface or ground waters is prohibited.” Exemptions to this prohibition may be allowed subject to the criteria detailed in the section entitled “Exemption Criteria for Aquatic Pesticide Use” in Chapter 4, section 4.1 of the Basin Plan.

Section 2: TKPOA CMT Project Goals

The primary purpose and goal of the CMT project is to evaluate the effectiveness of multiple AIP treatment methodologies, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will: 1) quickly reduce the AIP biomass, 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce re-infestation.

The CMT project divides the treatment methodologies into two groups. Group A includes herbicides, Ultraviolet light C (UV-C), Laminar Flow Aeration (LFA), with some herbicides test sites also including the use of UV-C in the year following herbicide treatment. Group A treatment sites may also be followed up with the use of Group B treatments. Group B treatments include bottom barriers, bottom barriers with injection of hot water, diver-assisted suction/hand pulling and possibly additional UV-C treatments. The Group B treatments will be follow-up treatments employed at multiple locations during Years 2 and 3.

The CMT currently includes 21 test sites (41.5 acre) and three control sites (controls do not receive treatment), which accounts for about 24 percent of the total surface area of the Tahoe Keys Lagoons. 16.9 acres will be treated with herbicides. The following is a breakdown of the different sites.

- Six herbicide-only sites in the West Lagoon (three replicate sites each for two herbicide products)
- Three herbicide-only sites in Lake Tallac (three replicate sites for one herbicide product)
- Three UV-C light-only sites
- Six combination sites (herbicides and UV-C light treatment)
- Three LFA-only sites
- Three control sites

The herbicides proposed for use are Endothall and Triclopyr. TKPOA also applied for a pesticide prohibition exemption for the use of Florpyrauxifen-benzyl (ProcellaCOR). ProcellaCOR is not yet approved for use in California by the California Department of Pesticide Regulation and, therefore, will not be considered by the Lahontan Water Board as part of this exemption.

Section 3: Exemption Request

TKPOA submitted an exemption request to apply Endothall, Triclopyr and ProcellaCOR in the Tahoe Keys Lagoons and Lake Tallac. At the time of writing of this resolution, ProcellaCOR has not been approved for use in California by the California Department of Pesticide Regulation. The maximum label rate has not been established for California, and the use of ProcellaCOR in California is not yet allowed. Therefore, the exemption request for ProcellaCOR is not considered.

The exemption request and additional information submitted by TKPOA for Endothall and Triclopyr is consistent with the Basin Plan for consideration of an exemption to the prohibition on the discharge of pesticides to surface water, as further described below.

(1) TKPOA submitted project information including a description of the project, purpose and need for the Project, and the chemical composition of the pesticides to be used. A communication and notification plan were also submitted and will be required as part of the Draft NPDES to be considered by the board. The spill response contingency plan will be finalized within 45 days after adoption of the NPDES permit.

(2) The Applicant submitted a report of waste discharge and an application for an individual National Pollutant Discharge Elimination System (NPDES) permit for the Project. The Project's last updated Aquatic Pesticide Application Plan was submitted on April 30, 2021 with a final amendment dated June 14, 2021.

(3) The decision to grant an exemption to the prohibition is a discretionary action subject to California Environmental Quality Act (CEQA). The Tahoe Regional Planning Agency (TRPA) is the Lead Agency for the Environmental Impact Statement (EIS) required by the Tahoe Regional Planning Compact and the Water Board is the CEQA Lead Agency for the Environmental Impact Report (EIR). Impacts and mitigation measures are set forth in the Draft Environmental Impact Report/Final Impact Statement (FEIR/FEIS).

(4) The exemption process described in section 5.3 of the State Implementation Policy (SIP) is for pesticides that are associated with priority pollutants. The Applicant is not seeking authorization to discharge any pesticides with priority pollutant ingredients.

(5) Information was also submitted related to how the project will benefit the people of California and to determine if the project complies with antidegradation policies. The Tahoe Keys Lagoons ranked as the highest priority for addressing Aquatic Invasive Species (AIS) in the 2015 Implementation Plan for the Control

of Aquatic Invasive Species within Lake Tahoe. The priority is due to the extensive recreational use and the density of AIS both of which represent threats of AIS spreading from Tahoe Keys Lagoons to Lake Tahoe. The information submitted by TKPOA and others in the public review process provides information to determine whether the use of the proposed discharges are consistent with Antidegradation Policies.

(6) Information was submitted to be able to determine whether the project satisfies the exemption criteria.

The information submitted by TKPOA is consistent with the Basin Plan for consideration of an exemption to the prohibition on the discharge of pesticides to surface water for the use of for endothall and triclopyr.

Section 4: Basin Plan Exemption Process

The Basin Plan prohibition and the exemption criteria were adopted by the Lahontan Water Board in December 2011, approved by the State Water Board in 2012, and approved by Office of Administrative Law in 2012. An exemption to the waste discharge prohibition for aquatic pesticide use may be granted by the Regional Board if all the following findings are made:

(a) The project is an eligible circumstance as described in the Basin Plan.

(b) The project satisfies all the applicable exemption criteria.

Section 4.1: Project Eligibility

The Basin Plan indicates that prohibition exemptions for “Controlling AIS or Other Harmful Species” will be considered “if the use of aquatic pesticides is to protect public health and safety, the environment, or for other situations described [in the Basin Plan].” (Basin Plan, p. 4.1 – 6). For non-Emergency and non-Time Sensitive projects proposed for purposes “of protecting drinking water supplies, water distribution systems, navigation, agricultural irrigation, flood control channels, control of AIS, or for purposes that otherwise serve the public interest, the project proponent must be (1) a state, federal, or public agency (local or regional) with legal authority to manage the affected resources or protect such facilities, or (2) private entity (e.g., a homeowners association, private water utility) that has control over the financing for, of the decision to perform, aquatic pesticide applications. For projects proposed for purposes of AIS control, the project proponent must demonstrate that the decision to apply aquatic pesticides is consistent with an adopted Aquatic Invasive Species Control Management Plan.” (Basin Plan, p. 4.1 – 6).

TKPOA is a homeowner’s association that has control over the financing and decision to perform aquatic pesticide applications. The Project would test a range of large-scale and localized aquatic weed control methods suitable for management of target aquatic weeds, to determine what combination of methods within the test areas will: (1) Reduce target aquatic weed infestations as much and as soon as feasible; (2) Bring target

aquatic weed infestations to a level that can be managed over the long term with localized non-herbicidal treatment methods; (3) Improve the water quality of the Tahoe Keys lagoons and reestablish native aquatic habitat; (4) Improve navigation and enhance recreational benefits and aesthetic values; and (5) Reduce the potential for target aquatic weed re-infestation after initial treatment.

The project proponent has demonstrated that the decision to apply aquatic pesticides is consistent with an adopted Aquatic Invasive Species Control Management Plan. The AIS Implementation Plan produced by the University of Nevada, Reno under Knowledge Gaps section, recommended that further exploration of the safe and effective use of pesticide as an integrated AIS management tool in Lake Tahoe be considered. Furthermore, the implementation plan identified the Tahoe Keys Lagoons as the highest priority site in Lake Tahoe. In light of an abundance of invasive plants in the lagoons, the plan recommended an integrated program including herbicide application to reduce the unwanted biomass.

Continued dense growth of aquatic weeds in the Tahoe Keys lagoons would increase the buildup of fine organic sediments from plant decay that can lead to increased turbidity and decreased water clarity. To the extent that aquatic weed infestations spread to other areas of Lake Tahoe, long-term potential impacts include a similar buildup of fine organic sediments and potentially a measurable contribution to increased turbidity and decreased water clarity in nearshore areas when those sediments are disturbed by wave action, currents, boats, swimmers, or bottom-dwelling organisms. Internal cycling of nutrients from decomposing macrophytes and organic sediments could also lead to increased phytoplankton productivity and negatively impact water clarity. The herbicide application is for the purposes of controlling AIS by evaluating the effectiveness of multiple AIP treatment methodologies and thereby addressing and controlling AIS in an effective manner. The project test will protect public health and safety and the environment.

Therefore, the project is an eligible circumstance as described in the Basin Plan.

Section 4.2: Basin Plan Exemption Criteria

The Basin Plan identifies seven exemption criteria for the Basin Plan's waste discharge prohibition for pesticide use in surface waters for projects that are neither emergencies nor time sensitive. Four criteria are located in the Basin Plan under the heading "Time Sensitive Projects" and the other three criteria are located in the Basin Plan under the heading "Projects that are Neither Emergencies nor Time Sensitive." The following is an evaluation of the exemption criteria in the order as they appear in the Basin Plan. The quoted text below is the exemption criteria language from the Basin Plan.

Criterion 1

> "Demonstration that non-chemical measures were evaluated and found inappropriate/ineffective to achieve the project goals. (Alternatives to pesticide use must be thoroughly evaluated and implemented when feasible (as defined in CEQA Guideline 15364: "Feasible" means capable of being accomplished in a successful

manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.)"

The project goal for TKPOA's CMT project is to:

> Evaluate the effectiveness of multiple AIP treatment methodologies, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will: 1) quickly reduce the AIP biomass 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce re-infestation.

The information generated by the CMT test will be used by TKPOA to update or to develop a new Integrated Management Plan for Aquatic Invasive Weeds (IMP)[1]. As recommended by the Lake Tahoe Aquatic Invasive Species Coordination Committee's 2015 AIS Plan, TKPOA is considering multiple AIP treatment methodologies, including chemical and non-chemical, in updating/developing its IMP. In order to compare the effectiveness of the different AIP treatment methodologies with minimal variability in testing conditions, it is important that all AIP treatment methodologies being considered for future use be evaluated at the same time in the same or very similar environment. That is why both chemical and non-chemical treatment methodologies identified in the CMT project need to be evaluated concurrently. Failing to do so, will fail to meet the project's goals, as outlined, above.

If following the CMT project, TKPOA develops an IMP that includes pesticide use, such a plan will require a Basin Plan prohibition exemption, separate from that being considered for the TKPOA CMT project. The results from the CMT project will be available for the project review and evaluation process related to the proposed IMP. As noted in the Basin Plan, the Lahontan Water Board has significant discretion in and how it approves pesticide use in surface waters of the Lahontan Region. Additionally, the Lahontan Water Board is under no obligation to grant a prohibition exemption for the proposed IMP simply because it may have granted such an exemption for the TKPOA CMT project.

Criterion 2

> "A plan detailing mitigation and management measures must be submitted and implemented. The Plan must incorporate control measures to limit adverse impacts to the shortest time necessary for project success. The Plan should include measures to remove and dispose of dead biomass which are adequate to protect water quality and beneficial uses. (Removal of biomass may not be necessary in situations where recovering the dead biomass creates a greater potential to impact water quality.)"

[1] Lahontan Water Board Waste Discharge Requirements Order No. R6T-2014-0059 requires TKPOA to develop and implement an Integrated Management Plan for Aquatic Invasive Weeds (IMP). The IMP is to address control and monitoring of AIP species in Tahoe Keys Lagoons, Lake Tallac, and the Marina Lagoon. TKPOA submitted its IMP in May 2016, and Water Board staff conditionally accepted the IMP in August 2016.

TKPOA submitted a plan detailing mitigation and management measures and those measures will be implemented by TKPOA. TKPOA submitted a report of waste discharge and an application for an individual National Pollutant Discharge Elimination System (NPDES) permit for the Project. The Project's last updated Aquatic Pesticide Application Plan was submitted on April 30, 2021 with an amendment dated June 14, 2021. In addition, the implementation of best management practices is a required component of the NPDES permit.

The control measures to be implemented by TKPOA limit adverse impacts to the shortest time necessary for project success. Pre-project macrophyte surveys to select final treatment locations/test sites to optimize aquatic herbicide selection for each test site would minimize non-target species impacts and optimize treatment of target aquatic plant species. Other control measures that would limit adverse impacts to the shortest time necessary for project success include the application of herbicides in the Tahoe Keys Lagoons when water flow direction would be from the Lake into the Keys, thereby minimizing the potential migration of herbicide to Lake Tahoe. Installation of turbidity curtains in key locations likewise prevents the migration of herbicides to Lake Tahoe. Control measures also include the application of Rhodamine WT aquatic dye tracing at time of aquatic herbicide application to trace herbicide residue migration and dissipation. Boating traffic would also be limited in the Tahoe Keys during application.

To ensure appropriate use of the pesticides, TKPOA would utilize qualified pesticide applicators licensed by the California Department of Pesticide Regulation (DPR), and is required to follow pesticide label requirements, project permit requirements, and approved project plans. Other control measures include transporting only the quantity of herbicide on the water needed for the site being treated and implementing spill and contingency mitigation measures to reduce impacts.

Adverse conditions that could result from plant die off include the lowering of dissolved oxygen and the possibility of stimulating a cyano-bacteria growth or harmful algae blooms (HABs). Dissolved oxygen and HABs will be monitored in the field and supported by laboratory analyses of the CMT treatment and the control sites. Two different mitigation efforts would be implemented when applicable conditions exist: the use of mechanical aeration to mitigate low dissolved oxygen, and the use of lanthanum modified clay to mitigate HAB outbreaks. Testing will be done to determine if the phosphorus levels are elevated before lanthanum modified clay is used.

TKPOA may remove some dead biomass as part of its existing practice to harvest AIP, however the project does not include measures to remove and dispose of dead biomass. Conducting aquatic herbicide treatment events in spring period before plant growth has reached peak biomass would minimize levels of dead biomass post-treatment and associated impacts of biomass decomposition to water quality. Biomass decomposition in the water places a biochemical oxygen demand on the dissolved oxygen (DO) in water that may cause short-term DO impacts. The low biomass and high-water column DO concentration conditions in the spring provide conditions that will minimize the potential for DO depletion.

With early spring treatment the levels of dead biomass post-treatment will be a fraction of that occurring when the plants are full growth. Removal of dead biomass at these minimized levels is difficult and has the potential to disturb sediment. Sediment disturbance could release nutrients into the water column and become available to algae. Aluminum persistent in sediments of the lagoons could also be mobilized into the water column. Therefore, removal of biomass creates a greater potential to impact water quality than biomass decomposition, and therefore is not necessary. Therefore, a plan detailing mitigation and management measures has been submitted and will be implemented by TKPOA.

The mitigation measures and the monitoring for adverse conditions appears acceptable and adequate to mitigate for the identified conditions.

Criterion 3

> "The planned treatment protocol will result in the minimum discharge of chemical substances that can reasonably be expected for an effective treatment."

There are two herbicides proposed for use, Endothall and Triclopyr. ProcellaCOR had been previously proposed, but it has not been approved for use in California by the Department of Pesticide Regulation; and therefore, it will not be used as part of the CMT project. TKPOA is proposing application rates less than the maximum allowable rates indicated on the label. Based on the results of mesocosm studies, TKPOA plans to use the following target application concentrations at each treatment area.

Table 1: Allowable and Proposed Herbicide Application Concentration and Application Methods

Herbicide	**Max. Allowable Target Area Concentration**	**Proposed Target Area Concentration**	**Application Method**
Endothall	5 ppm	2 ppm	Drop hoses
Triclopyr	2.5 ppm	1 ppm	Drop hoses or granular

Based on the mesocosm studies, TKPOA intends to minimize the chemical application concentrations to the minimum application of chemical substances that can reasonably be expected for an effective treatment to meet project goals.

Criterion 4

> "Monitoring and reporting program must be submitted and implemented to evaluate impacts and verify restoration of water quality in the treatment area. The program must be sufficient to determine compliance with criterion No. 3.

> The project monitoring program must include pre- and post-project sampling of water, sediment, and biota to determine if toxicity persists as a result of project implementation. At the discretion of the Regional Board, due to the urgency of Time Sensitive projects, the collection and analysis of sediment and biological samples may be waived and/or a reference site may be used to represent pre-project conditions.
>
> Unless waived by the Regional Board, the project proponent shall develop a biological monitoring program to evaluate (a) the magnitude and extent of potential impacts to, and (b) the post-project recovery of non-target organisms and rare/threatened or endangered species. The biological monitoring program must be based on an appropriate study design, metrics, and performance criteria to evaluate restoration of aquatic life as specified below in criterion no. 7. This requirement may be waived at the discretion of the Regional Board where the Regional Board finds that there is no significant threat to non-target aquatic organisms."

The Aquatic Pesticide Application Plan (APAP) for the CMT provides a description of the monitoring that aligns with the EIR/EIS and Basin plan requirements. A Mitigation Monitoring and Reporting Program (MMRP) will be required pursuant to Water Code Section 13267. In addition, a monitoring and reporting program is a required component of the (NPDES Permit. The monitoring and reporting that will be implemented includes: (1) pre-project monitoring to determine pre-project conditions, (2) monitoring during project implementation including visual observation of dye tracer, contingency monitoring, and water quality monitoring to determine aquatic herbicide migration and if applicable mitigation measures must be implemented; (3) post-project monitoring to determine the effects from the CMT treatments and post-project recovery.

The monitoring and reporting that will be implemented is sufficient to determine compliance with Criterion No. 3, showing that the planned treatment protocol will result in minimum discharge of chemical substances that can reasonably be expected for an effective treatment. Baseline data on all treatment sites will be collected prior to any herbicide application, including hydroacoustic scans. Surveys since 2015 have included point-intercept sampling to determine percent composition by species and hydroacoustic sampling to determine presence of plant species, plant height, and biovolume (TKPOA 2019c and TKPOA 2020d). Hydroacoustic and aquatic macrophyte surveys would be completed in the test sites prior to initiating the testing program. These survey results would provide information on the species mix and biovolumes of macrophytes, and would be used to decide (1) final test site locations and boundaries to minimize effects on non-target species, and (2) which of the proposed herbicides to apply at each herbicide test site to best match the target species present. Any adjustments to site locations and boundaries would not expand the total area of herbicide testing. In the year following Group A testing at each site, hydroacoustic and macroinvertebrate surveys would be performed to determine the size of the remaining infestation. The hydro-acoustic scans will be used to determine the bio volume of the plants, plant growth or a lack of growth. The plant point sampling will evaluate the health and variety of the plants after treatment.

The project monitoring program also includes pre- and post-project sampling of water, sediment, and biota to determine if toxicity persists due to project implementation. Pre-

project and post-project monitoring will include testing for the presence of aquatic pesticides, and monitoring the water quality parameters of pH, dissolved oxygen, temperature, and turbidity. Rhodamine WT dye detections will be used to determine the possible migration of aquatic pesticides. Water quality monitoring and visual observation could trigger additional water quality monitoring and will be used to determine whether to implement applicable mitigation measures. The dissolved oxygen water quality parameter will be the lead indicator in determining when and if aeration should be implemented. For cyano-bacteria, visual indications of a potential HAB occurrence and subsequent water samples will be collected and analyzed for the three HAB indicators (Microcystins ≥ 0.8 µg/L, Anatoxin-a is detected and cylindrospermopsin ≥ 1.0 µg/L) and total phosphorus in the water at the target treatment area(s) and the control sites to determine whether lanthanum modified clay should be applied.

Pre-project and annual monitoring of the biological conditions will also be implemented. The target indicator will be the Benthic Macro-Invertebrates (BMI) (i.e., aquatic bugs). The measurement/analyses will be done at all treatment locations and will be used to determine the magnitude and potential impact to, and the post-project recovery of, non-target organisms and rare/threatened or endangered species in comparison to pre-treatment conditions. This biological monitoring is based on an appropriate study design, metrics and performance criteria to evaluate restoration of aquatic life as specified criterion no. 7 of the Basin Plan exemption criterion, and further explained below in the discussion of Criterion 7.

Criterion 5

> "Purpose and Goals statement that (a) demonstrates that the target organism is a primary cause of the problem being addressed, and (b) provides evidence that the proposed application of pesticides will accomplish the project goals."

The purpose of the CMT is to test methods to control the spread of target AIP species that have compromised water quality in the Tahoe Keys Lagoons and threaten Lake Tahoe. The Lake Tahoe Aquatic Invasive Species Coordination Committee's 2015 AIS Plan produced by the University of Nevada Reno, ranks the Tahoe Keys Lagoons as the top priority area to be treated due to the magnitude of the invasive plant and fish infestations and the high recreational use of the area. Targeted AIP species are Eurasian watermilfoil and curlyleaf pondweed. The purpose and goals of the project demonstrate that the target organism is a primary cause of the AIS infestation being addressed.

The proposal is to test different treatment methodologies to determine what treatment methodology or combination of methodologies will best control the target AIP species. Recent studies in Lake Tahoe and TKPOA's mesocosm studies indicate that the multiple treatment methodologies to be evaluated by the CMT project have potential to treat the target AIP species to some extent. Evaluating the effectiveness of chemical and non-chemical treatment methodologies concurrently in the same or very similar environment will accomplish the project goals of identifying effective treatment methodologies or combination of methodologies for controlling the target AIP species in Tahoe Keys Lagoons.

Criterion 6

> "A description of the failure of non-chemical measures to effectively address the target organisms. The description will include either (1) evidence that non-chemical efforts failed to address target organisms or (2) justification, accepted by Regional Board, of why non-chemical measures were not employed or are not feasible (CEQA Guideline 15364) to achieve the treatment goals."

In response to the growing infestation of target aquatic weeds in the Tahoe Keys and to limit non-point sources of pollution, TKPOA was tasked with developing a Non-Point Source Water Quality Management Plan (NPS Plan), and an Integrated Management Plan (IMP) to address target aquatic plant species management. Both plans are being implemented and a variety of non-herbicidal control methods have been utilized over the last decade. However, due to the size, density, and dominance of the infestation in the Tahoe Keys Lagoons, these control methods have produced limited results. In addition, these current control methods also produce large quantities of weed fragments, which risk the further spread of aquatic weed infestations throughout the shallow nearshore waters of Lake Tahoe. Non-chemical efforts to date have failed to address target organisms. Other non-chemical control methods (LFA and UVC-C light) are experimental methodologies that are unproven in controlling AIS on scale and density found in the Tahoe Keys.

The proposed CMT project will evaluate both non-chemical and chemical treatment methodologies concurrently to compare the effectiveness of each treatment methodology and combinations of treatment methodologies. The following reasons provide a justification of why the CMT project may proceed, concurrently evaluating both non-chemical measures and chemical measures.

1. Non-chemical treatment methodologies will be employed in the Project.
2. TKPOA has implemented mechanical measures to control AIP, for many years which have failed to control growth and spread of AIP in the Tahoe Keys Lagoons.
3. The Lake Tahoe Aquatic Invasive Species Coordination Committee's 2015 AIP Plan prepared by the University of Nevada Reno identifies the Tahoe Key Lagoons as highest priority location within Lake Tahoe to be treated for Aquatic Invasive Species, including AIP.
4. The CMT project will test two experimental non-chemical treatment methodologies (LFA and UVC-C light) to compare their effectiveness to that of two chemical treatment methodologies in the Tahoe Keys Lagoons. The original CMT project has been modified through a collaborative approach with assistance from the League to Save Lake Tahoe, Tahoe Regional Planning Agency, and substantial work by other stakeholder groups. The collaborative approach has increased the project's scope regarding non-chemical treatment methodology evaluation and reduced the scope of herbicide use to a one-treatment event test application at multiple locations involving significantly less area than originally proposed. Further limiting the CMT project to evaluating only non-chemical

treatment methodologies will reduce the knowledge to be gained and will not accomplish the goals of the project.

The information obtained through the proposed CMT project will be used to assist TKPOA, regulatory agencies, and others in making informed decisions regarding the future treatment methodologies TKPOA will use to control AIP. Including chemical use as part of a future IMP will require a separate project evaluation and Basin Plan prohibition exemption prior to the IMP being accepted by the Lahontan Water Board.

Criterion 7

> "A monitoring and reporting program accepted by the Regional Board, will be followed to assess the effects of treatment on surface and ground waters, and on bottom sediments if specified by the Regional Board. The monitoring and reporting program must include, but not be limited to, monitoring sites, analytes, methods, frequencies, schedule, quality assurance, and measurable objectives to determine if the project goals were achieved (e.g., acreage treated, reduction in biomass of target species, improved water quality). The monitoring plan must identify a dedicated budget and specify the entity/person(s) responsible for the monitoring…."

The quote, above, is only a portion of the criterion, as it is quite lengthy (Basin Plan pages 4.1-9 and 4.1-10).

A monitoring and reporting program is a required component of the NPDES permit. A Mitigation Monitoring and Reporting Program is also required. In addition, a description of monitoring to be implemented was included in the APAP submitted by TKPOA. The monitoring to be implemented will assess the effects of treatment on surface and ground waters, and on bottom sediments.

In June 2021, TKPOA provided an update to their APAP which included changes to their proposed monitoring program in June of 2021. The monitoring program includes information on monitoring sites, analytes, methods, frequencies, schedules, quality assurance, and measurable objectives to determine if the project goals will be achieved. The updated monitoring program included additional pre- and post-biological monitoring of the non-target community. The pre- and post-biological monitoring will target plant monitoring and macroinvertebrates. The plant monitoring will provide biovolume estimates from hydroacoustic scans and point plants sampling to determine health and diversity. The macroinvertebrates will be the key indicator in evaluating the recovery of the non-target community.

The pre-project biological monitoring program and the monitoring, reporting, and mitigation program for non-target communities (section 4 of the APAP monitoring program submitted by TKPOA) was peer reviewed by independent expert, Dr. Michael Marchetti Ph.D. with Saint Mary's College of California, through the Tahoe Science Advisory Council. The review found "the proposed monitoring plan will provide ample evidence to assess whether non-target communities have fully restored/recovered after the aquatic weed treatments."

The biological monitoring program is based on an appropriate study design, metrics, and performance criteria to evaluate restoration of non-target biological life potentially affected by the pesticide application. Pre-project and post-project monitoring of biological conditions will include monitoring using a Benthic Macro-Invertebrates (BMI) indicator. This is an indicator that is commonly accepted by the scientific community and is accepted by the Regional Board. The measurement/analyses will be done at all treatment locations and will be used to determine the magnitude and potential impact to, and the post-project recovery of, non-target organisms. As required by the NPDES permit, within two years of the last treatment for a specific project, a qualified biologist(s) will assess the restoration of non-target aquatic life and benthic communities within the treated waters. Based on the monitoring data and the evidence, the biologist would certify to the Regional Board in writing that all affected non-target biological communities have been fully restored. If non-target biological communities are not fully restored after two years, the project proponent must conduct continued annual monitoring and implement the proposed mitigation measures until the Regional Board accepts the certification.

Therefore, the monitoring program meets the conditions stated in criterion no. 7.

Section 5: Summary

The proposed CMT project will evaluate the initial “knock down” effectiveness of four treatment methodologies involving two non-chemical methodologies (LFA and UV-C light) and two chemicals (herbicides Endothall and Triclopyr). Both herbicide and non-chemical treatments may receive follow-up treatments by non-chemical treatment methodologies and some treatments are planned to be operated for the entire length of the project, such as LFA. Data will be collected for three years or longer and is intended to provide information to assist in deciding which treatment methodologies are to be included in TKPOA’s future IMP.

The purpose or goal of the CMT project is to evaluate chemical and non-chemical treatment methodologies. The project is not proposing to use and evaluate chemical treatment methodologies at the exclusion of non-chemical treatment methodologies. The information obtained through the proposed CMT project will be used to make informed decisions in developing, reviewing, and approving TKPOA’s future IMP. Evaluating the effectiveness of different treatment methodologies and combination of treatment methodologies needs to be done concurrently under the same or very similar environmental conditions in order to produce comparative results.

The Basin Plan recognizes that certain activities involving the application of herbicides may be in the public interest and includes controls of aquatic invasive species as a circumstance eligible for a prohibition exemption, including project located in or near Lake Tahoe. As described above, TKPOA’s CMT project is an eligible project that meets the Basin Plan’s exemption criteria for pesticide use.

References

April 30, 2021, Updated Basin Plan Exemption Application and Updated Aquatic Pesticide Application plan for the control method Test Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoons.

June 14, 2021 Updated Section 4 of the, Updated Basin Plan Exemption Application and Updated Aquatic Pesticide Application plan for the control method Test Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoons.

2019 Aquatic Invasive Plant Control Pilot Project Final Monitoring Report, Tahoe Resource Conservation District

2020, Draft Environmental Impact Report/Environmental Impact Statement Tahoe Key Lagoons Aquatic Weed Control Methods Test

Andy Kopania, 2020 E-mail communication on estimated cost to implement herbicide and first-year monitoring cost.

Greg Hover, 2020 E- mail communication on the estimated cost to install six acres of laminar flow aeration.

Harold Singer, 2020 Ski Run Marina Laminar Flow Aeration Project – Project Report

Witmann, M.E. and Chandra, S., 2015 Implementation Plan for the Control of Aquatic Invasive Species within Lake Tahoe. Lake Tahoe AIS Coordination Committee, July 31, 2015. University Nevada Reno

ENCLOSURE 3

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150
(530) 542-5400, Fax (530) 544-2271
http://www.waterboards.ca.gov/lahontan

ORDER NO. R6T-2022-[PROPOSED]
NPDES NO. CAXXXXXXX
WDID NO. 6A090089000

WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR TAHOE KEYS PROPERTY OWNERS ASSOCIATION TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	Tahoe Keys Property Owners Association
Name of Project	Tahoe Keys Lagoons Aquatic Weed Control Methods Test
Facility Address	356 Ala Wai Boulevard South Lake Tahoe, CA 96150 El Dorado County

Table 2. Discharge Location

Discharge Point	Discharge Description	Receiving Water
Tahoe Keys Main Lagoon	Aquatic Herbicide Residues, Rhodamine WT and Lanthanum-Modified Clay	Lake Tahoe
Lake Tallac	Aquatic Herbicide Residues, Rhodamine WT and Lanthanum-Modified Clay	Lake Tallac, Pope Marsh, Lake Tahoe

Table 3. Administrative Information

This Order was adopted on:	**<Adoption Date>**
This Order shall become effective on:	**<Effective Date>**
This Order shall expire on:	**<Expiration Date>**
The Discharger must file a Report of Waste Discharge (ROWD) as an application for reissuance of a WDR in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**180 days prior to the Order expiration date**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Lahontan Region have classified this discharge as follows:	**Minor discharge**

I, Michael R. Plaziak, Executive Officer; do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on the date indicated above.

_____

MICHAEL R. PLAZIAK, PG
EXECUTIVE OFFICER

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I. DISCHARGE INFORMATION

This Order regulates the discharge of aquatic herbicide residues, Rhodamine WT (dye tracer), and lanthanum-modified clay (phosphorus control). Additional information describing these discharges that are associated with the Tahoe Keys Lagoons Aquatic Weed Control Methodology Test (Project) is summarized in Table 2, above, and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Discharger's permit application.

II. FINDINGS

A. Legal Authorities

This Order serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (Water Code) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 2 subject to the WDRs in this Order.

B. Background and Rationale for Requirements

The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) developed the requirements in this Order based on information submitted as part of the application, monitoring, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through G are also incorporated into this Order.

C. Human Right to Safe, Clean, Affordable, and Accessible Water

Water Code section 106.3 establishes a state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes and directs state agencies to consider this policy when adopting regulations pertinent to those uses of water. This Order promotes that policy by requiring best management practices and other control measures be implemented, monitoring to assess water quality, and corrective action, when needed, to address adverse impacts to water quality.

D. California Environmental Quality Act

This action to adopt an NPDES permit is statutorily exempt from the provisions of the California Environmental Quality Act (CEQA, Public Resources Code sections 21000, et seq.), pursuant to section 13389of the Water Code.

Pursuant to the requirements specified in the Water Quality Control Plan for the Lahontan Region (Basin Plan) for consideration of an exemption to the prohibition on the discharge of pesticides to surface or groundwaters in the

Lahontan Region, the Discharger has conducted a CEQA analysis (*Final Environmental Impact Report/Final Environmental Impact Statement for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test*, XX, XX, 2022).

E. **Notification of Interested Parties**

The Lahontan Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

F. **Consideration of Public Comment**

The Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public meeting are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger must comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. In accordance with the Region-wide and Unit/Area-specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan), unless a specific exemption is granted in writing by the Lahontan Water Board, aquatic pesticides are prohibited from the waters of the Lahontan Region. On January XX, 2022, the Lahontan Water Board adopted Resolution No. R6T-2022-XXXX granting an exemption for the discharge of two residual aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac.

B. The discharge of residual aquatic herbicides, Rhodamine Water Tracer (Rhodamine WT) and lanthanum-modified clay, in a manner different from that described in this Order is prohibited.

C. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must not create a nuisance as defined in section 13050 of the Water Code.

D. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must not cause, have a reasonable potential to cause, or contribute to a receiving water*[1] excursion above any applicable standard or criterion promulgated by U.S. EPA pursuant to section 303 of the CWA, or any narrative or numeric water quality objective contained in the Basin Plan.

[1] The first occurrence of each term defined in Attachment A is designated with an asterisk (*).

E. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay to treatment areas* not approved by the Lahontan Water Board Executive Officer (Executive Officer) prior to discharge is prohibited.

F. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay to each approved treatment area for more than one treatment event*, and to an area greater than 14 acres of water surface area in the Tahoe Keys Main Lagoon and 2.9 acres of water surface area in Lake Tallac is prohibited.

G. The discharge of residual aquatic herbicides and Rhodamine WT to the Tahoe Keys Main Lagoon when the waters in the Main Lagoon are flowing to Lake Tahoe is prohibited.

H. The discharge of endothall products with the endothall N,N-dimethylalkylamine salt formulation of the endothall active ingredients is prohibited.

I. The discharge of triclopyr products with the triclopyr butoxyethyl ester (BEE) formulation of the triclopyr active ingredients is prohibited.

J. The discharge of adjuvants* or surfactants is prohibited.

K. The discharge of Rhodamine WT not associated with an aquatic herbicide application* event is prohibited.

L. The discharge of lanthanum-modified clay not associated with an aquatic herbicide, UV light or laminar flow aeration treatment event is prohibited.

M. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste that causes further degradation or pollution is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must meet applicable water quality standards for receiving waters; and

2. The Discharger must implement Best Management Practices (BMPs) when applying aquatic herbicides, Rhodamine WT and lanthanum-modified clay. The minimum BMPs for the use of aquatic herbicides and Rhodamine WT are described in Section VI.C and minimum BMPs for the use of lanthanum-modified clay use are described in Section VII.B below.

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

Receiving water limitations are a required part of this Order and are based on water quality objectives contained in the Basin Plan. Pesticide discharge prohibition exemption criteria specified at page 4.1-4 of the Basin Plan require that monitoring for pesticide application projects must commence no more than one week after the application event* and that the time frame a project is required to achieve compliance with water quality objectives in treatment areas is established and specified by the Lahontan Water Board. The discharger must demonstrate compliance with receiving water limitations at all times outside of the treatment areas. Within the treatment area, the discharger must demonstrate compliance with receiving water limitations within 21 days after the application event.

A. Receiving Water Limitations - Surface Waters

The discharge must not cause any of the following:

1. An exceedance of the following limitations in the receiving waters:

Table 4. Receiving Water Limitations

Parameter	Units	Instantaneous Maximum Limit	Basis
Endothall*	µg/L	100	Drinking Water MCL
Triclopyr*	µg/L	400	USEPA Drinking Water Dietary Exposure Limit
Rhodamine WT	µg/L	10	National Sanitation Foundation (NSF) Standard 60

* Measured as the concentration of the acid form of the active ingredient.

Unit Abbreviations: µg/l = micrograms per liter

2. **Water Quality Objectives Which Apply to Surface Waters:** The following narrative and numerical water quality objectives apply to all surface waters within the Lahontan Region and include Lake Tahoe-specific water quality objectives. These water quality objectives can be found at page 5.1-6 of the Basin Plan and in Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Policy (Statewide Bacteria Provisions). The discharge to receiving waters of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must not cause a violation of water quality objectives for the surface waters of the South Tahoe Hydrologic Area and the Tahoe Lake Body Hydrologic Area:

a. **Biostimulatory Substances**. Waters must not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.

b. **Chemical Constituents.** Waters designated as municipal and domestic supply (MUN) must not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of title 22 of the California Code of Regulations, which are incorporated by reference into this Order: Table 64431-A (MCLs for Inorganic Chemicals), Table 64444-A (MCLs for Organic Chemicals), Table 64449-A (SMCLs, Consumer Acceptance Contaminant Levels), and Table 64449-B (SMCLs, Consumer Acceptance Contaminant Level Ranges). This incorporation-by-reference is prospective and therefore includes future changes to the incorporated provisions, as changes take effect.

   Waters designated as agricultural supply (AGR) must not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

   Waters must not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

c. **Color.** Waters must be free of coloration that causes nuisance or adversely affects the water for beneficial uses.

d. **Dissolved Oxygen.** The minimum dissolved oxygen concentration must not be less than that specified in Table 5.1-8 of the Basin Plan for COLD . The minimum seven day mean dissolved oxygen concentration must be not less than 5 mg/L.

e. **Floating Materials.** Waters must not contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses.

   For Lake Tahoe, the concentrations of floating material must not be altered to the extent that such alterations are discernible at the 10 percent significance level.

f. **Nondegradation of Aquatic Communities and Populations.** All wetlands must be free of substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or that lead to the presence of undesirable or nuisance aquatic life.

   All wetlands must be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical, and hydrologic processes.

g. **Oil and Grease.** For Lake Tahoe, the concentration of oils, greases, or other film or coat generating substances must not be altered.

h. **pH.** For Lake Tahoe, the pH must not be depressed below 7.0 nor raised above 8.4.

i. **Sediment.** The suspended sediment load and suspended sediment discharge rate of surface waters must not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.

j. **Temperature.** The natural receiving water temperature of all waters must not be altered unless it can be demonstrated to the satisfaction of the Lahontan Water Board that such an alteration in temperature does not adversely affect the water for beneficial uses. For Lake Tahoe, the temperature must not be altered.

k. **Toxicity.** All waters must be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms; analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Lahontan Water Board.

   The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, must not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for "experimental water" as defined in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 2012 or subsequent editions).

l. **Turbidity.** Waters must be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity must not exceed natural levels by more than 10 percent.

m. **Algal Growth Potential.** For Lake Tahoe, the mean algal growth potential at any point in the Lake must not be greater than twice the mean annual algal growth potential at the limnetic reference station. The limnetic reference station is located in the north central portion of Lake Tahoe. It is shown on maps in annual reports of the Lake Tahoe Interagency Monitoring Program. Exact coordinates can be obtained from the U.C. Davis Tahoe Research Group.

n. **Suspended Sediment.** Suspended sediment concentrations in streams tributary to Lake Tahoe must not exceed a 90th percentile value of 60 mg/L. (This objective is equivalent to the Tahoe Regional Planning Agency’s regional “environmental threshold carrying capacity” standard for suspended sediment in tributaries.) The Regional Board will consider revision of this objective in the future if it proves not to be

protective of beneficial uses or if review of monitoring data indicates that other numbers would be more appropriate for some or all streams tributary to Lake Tahoe.

o. **Specific Numeric Receiving Water Limitations.** Surface receiving water limitations for Lake Tahoe and Lake Tallac in Table 5, below, are based on Table 5.1-3 (page 5.1-18) of the Basin Plan. The discharge to surface waters of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must not cause or contribute to exceedances of the following receiving water limitations:

Table 5 Receiving Water Limitations for Lake Tahoe and Lake Tallac

Constituent	Limit (mg/L)	
	Annual Average	90th Percentile
Total Dissolved Solids (TDS)	60	65
Chloride	3.0	4.0
Sulfate	1.0	2.0
Boron	0.01	-
Total Nitrogen	0.15	-
Total Phosphorus	0.008	-

VI. AQUATIC PESTICIDE USE REQUIREMENTS

A. Application Schedule

The Discharger must provide a contact phone number or other specific contact information or online resource containing schedule information to all persons who request the Discharger's application schedule. The Discharger must provide the requester with the most current application schedule and inform the requester that the schedule is subject to change. Information may be made available by electronic means, including posting prominently on a well-known website.

B. Public Notice Requirements

The pesticide discharge prohibition exemption criteria specified in section 4.1 of the Basin Plan requires the Discharger to notify potentially affected parties who may use the potentially affected water for any beneficial use. The notification

must include any associated water use restrictions or precautions. In addition, the Discharger must also: 1) provide via certified mail, or equivalent, notice of the proposed pesticide applications to water purveyors whose source water relies on the surface water and/or on groundwater wells designated to be under the direct influence of the surface water; 2) provide to the Lahontan Water Board comments written from, and written responses to, the water purveyors notified pursuant to the notification; and 3) provide water purveyors and the Lahontan Water Board an estimate of the maximum foreseeable concentrations of pesticide components in the nearest surface water intake used for drinking water supplies located within the receiving waters.

At least 15 days prior to the first application of aquatic herbicides and Rhodamine WT, the Discharger must notify potentially affected individuals and water purveyors whose source of water is Lake Tahoe. The Discharger must post the notification on its website if available. The notification must include the following information:

1. A statement of the Discharger's intent to apply aquatic herbicide(s) and Rhodamine WT;
2. Brand names of aquatic herbicide(s) and Rhodamine WT products to be discharged;
3. Purpose of use;
4. General time period and locations of expected use;
5. Any water use restrictions or precautions during treatment; and
6. A phone number that interested persons may call to obtain additional information from the Discharger.

C. Aquatic Pesticide Application Plan (APAP)

The Discharger must submit two APAP[2] amendments and both amendments must be approved before an application event may occur. The first APAP amendment must address items VI.C.1-3, below, and must be submitted **within 45 days after** the adoption date of this Order to the Executive Officer for approval, and must be made available to the public for a 30-day period to allow for public comment.

The second APAP amendment must address items VI.C.4-6, below, must be submitted at least **30 days before** the expected day of first application of aquatic herbicides and Rhodamine WT to the Executive Officer for approval, and must be made available to the public for a 15-day period to allow for public comment.

1. The brand names of the aquatic herbicide products containing the endothall and triclopyr active ingredient formulations and Rhodamine WT

[2] APAP amendments must be submitted to supplement the April 30, 2021 APAP with information that incorporates the year of treatment aquatic plant surveys prior to discharge.

products to be used; the method which they will be applied, including the calculated volume of herbicide that will be applied for each designated treatment area; and supporting data utilized to calculate volumes for application.

2. Plans to prevent sample contamination from persons, equipment, and vehicles associated with aquatic herbicide and Rhodamine WT applications.

3. A BMP implementation plan. The BMP plan must include the following BMPs at the minimum:

   a. Plans to prevent aquatic herbicide spill and for spill containment in the event of a spill. Minimum spill control BMPs must include:

      i. Loading of aquatic herbicides and Rhodamine WT on to watercraft utilized for chemical applications (i.e., discharges) must be done with the vessel behind the installed double turbidity curtains.

      ii. Watercraft utilized for aquatic herbicide and Rhodamine WT applications must carry only enough aquatic herbicides and Rhodamine WT to apply to the treatment area(s) being treated at any given time.

      iii. Spill Response Plans. The APAP submitted on April 30, 2021 contained a Draft Spill Contingency Plan and the plan states "TKPOA will contract with and have on standby a hazardous material response team during the course of the above-described herbicides application…" The Discharger must provide a final Spill Response Plan addressing any potential spill of chemicals utilized for project implementation. The name and contact information for the hazardous material response team that will respond to spills during project implementation must be provided a minimum of **30 days prior to** any aquatic herbicide and Rhodamine WT applications.

   b. Plans to ensure that the rate of application is consistent with the APAP and not to exceed proposed application rates specified in the APAP. Minimum application BMPs must include:

      i. The application of the aquatic herbicides and Rhodamine WT must be conducted according to all product label requirements.

   c. The Discharger's plan for educating its staff and aquatic herbicide and Rhodamine WT applicators on how to avoid any potential adverse effects from the chemical applications. Minimum education BMPs must include:

i. The application of the aquatic herbicides and Rhodamine WT must be conducted by and under an authorized/licensed aquatic pesticide applicator.

ii. The aquatic pesticide applicator and associated staff must have safety training **within 30 days prior to** the target application addressing the aquatic herbicide and Rhodamine WT products and their associated hazards.

iii. The aquatic pesticide applicator must conduct a daily morning safety briefing prior to starting any aquatic herbicide and Rhodamine WT applications.

d. Plans to prevent aquatic herbicide migration to receiving waters adjacent to the main lagoon west channel entrance to Lake Tahoe and Pope Marsh downstream of Lake Tallac during treatment events. Minimum containment BMPs must include:

i. Boat traffic must be limited to only that necessary to implement the project during application and while turbidity curtains are in place.

ii. Prior to applying herbicides, double turbidity curtains (two turbidity curtains) must be installed in the locations identified on the Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations map in Attachment C to prevent herbicide migration from the Tahoe Keys Lagoons to Lake Tahoe. If turbidity curtain locations are revised in response to revised treatment area locations reported per VI.C.4, above, the Discharger must reflect such revised barrier locations on the map submitted per VI.C.4. The double turbidity curtains must be maintained until all herbicide treatment sites have a minimum of two consecutive samples that are non-detect (i.e, below the reporting limit for the receiving water limitation parameters in Table 4 above.)

iii. Applications (i.e., discharge) of aquatic herbicides and Rhodamine WT products must be conducted when hydraulic gradients are such that the Main Lagoon is filling from Lake Tahoe.

e. Plans to respond to harmful algal bloom (HAB) outbreaks within treated areas following treatment events.

f. The decaying biomass of the invasive aquatic plants killed by the application may increase the biochemical oxygen demand in treatment areas and receiving waters. Measures and plans to ensure compliance with the Basin Plan DO water quality objective in treatment areas following the treatment event and receiving waters at

all times must be developed and implemented. Minimum DO control BMPs to be developed and implemented must include:

i. Plans to mitigate the oxygen demand from dead organic matter using aeration or other means. The plan must include all relevant design and implementation details including, as appropriate, the following:

- Manufacturers of the equipment (e.g., aerators) to be used,
- Associated equipment (e.g., piping, compressors)
- Map indicating locations of installed equipment;
- Estimated time to implement and install the DO control system.

g. Measures to take in the event of an exceedance of receiving water limitations caused by the discharge of residual aquatic herbicides. Such measures must include, but are not limited to, ceasing the discharge, notifying the Lahontan Water Board, and remedying the exceedance by implementing additional BMPs and control measures. The Discharger must take all reasonable steps to minimize or correct any non-compliance with this order resulting from aquatic herbicide and Rhodamine WT discharges, including such as accelerated or additional monitoring as may be necessary to determine the nature, extent, and effect of the receiving water limitation exceedance.

h. Measures to minimize sediment disturbance when installing and removing barrier curtains, installing and removing aeration diffusers and any other Project activities that disturb bed sediments in the Tahoe Keys Lagoons and Lake Tallac.

4. Final map showing treatment areas including their location and size in acres and, as applicable, any changes to barrier or monitoring locations. Provide the pre-project spring aquatic plant survey and hydro-acoustic scans results used to finalize the treatment locations.

5. A written summary of current and expected hydrologic conditions at the time of discharge (e.g, snowpack, local hydrology, hydraulic gradient in Lake Tahoe) demonstrating Prohibition III.H will be met at the time of discharge.

6. Proposed date(s) of treatment for each treatment area.

D. APAP Processing, Approval, and Modifications

Upon receipt of either of the two required amendments to the APAP, Lahontan Water Board staff will review the plan for completeness. If Lahontan Water Board staff determines the amendments to APAP are acceptable, staff will recommend the Executive Officer approve the amendments to the APAP. If an amendment to the APAP is determined to be incomplete, the Discharger must address Lahontan Water Board staff comments and resubmit the amendment

for Executive Officer approval. The amendments to the APAP addressing items VI.C.1-5, above, and the Lanthanum-Modified Clay Application Plan described in VII.B, below, must be approved by the Executive Officer prior to any aquatic herbicide and Rhodamine WT applications.

Any major changes to the APAP made after the amendments to the APAP are approved as described, above, must be submitted in writing to the Executive Officer for approval. Examples of major changes include, but are not limited to, changing an application method that may result in different amounts of pesticides being applied, changing final treatment area location or size or adding or removing BMPs. The total overall area to be treated may not be increased.

E. Aquatic Herbicide and Rhodamine WT Application Log

The Discharger must maintain a log for each aquatic herbicide and Rhodamine WT application event. The application log must contain, at a minimum, the following information:

1. Date and time of application;
2. Location of application;
3. Names of applicator and supporting staff present for the applications;
4. Type and amount of aquatic herbicide and Rhodamine WT applied to each treatment site;
5. The aquatic herbicide and Rhodamine WT application method;
6. Visual monitoring assessment; and
7. Certification that applicator(s) followed the APAP and implemented the minimum BMPs identified in VI.C.3, above.

VII. LANTHANUM-MODIFIED CLAY USE REQUIREMENTS

A. Lanthanum-Modified Clay Application Criteria

Lanthanum modified clay has been proposed by the Discharger to reduce available phosphorus levels to minimize/control harmful algal bloom (HAB) issues associated with the CMT. The following criteria must be met to use Lanthanum-modified clay:

1. Visual inspection of a treated area indicates a possible HAB;
2. Phosphorus concentrations in the water column for the treatment area are higher than both the water quality objective (0.008 mg/L) and that of the control site(s);
3. Cyanobacteria indicators are at caution levels or higher. Caution levels are Microcystins ≥ 0.8 µg/L, Anatoxin-a is detected and cylindrospermopsin ≥ 1.0 µg/L; and

4. Alkalinity of the water in the treatment area to be treated is greater than 20 mg/L.

The lanthanum-modified clay application concentration must not be greater than the recommended label application rates. Lanthanum-modified clay may be used to reduce the phosphorus concentration between the water quality objective of 0.008 mg/L and 0.005 mg/L. In no case shall the quantity of lanthanum-modified clay discharged be greater than the amount necessary to reduce the phosphorus in the waterbody to attain the target range of total phosphorus concentration.

B. Lanthanum-Modified Clay Application Plan (LMCAP)

The Discharger must submit a LMCAP **by April 1, 2022** for the application of lanthanum-modified clay if it is utilized as a HAB control consistent with the requirements of section VI.C.3.e, above, to the Executive Officer for approval, and must make the LMCAP available to the public for a 30-day period to allow for public comment. The LMCAP must contain, but not be limited to, the following elements sufficient to address each treatment area treated with lanthanum-modified clay:

1. The lanthanum-modified clay product name to be used, proposed lanthanum-modified clay application rate, and the method which it will be applied;
2. Description of the BMPs to be implemented. The BMPs must include, at the minimum:
    a. Plans to prevent lanthanum-modified clay spills and for spill containment in the event of a spill. Minimum spill control BMPs must include:
        i. Loading of lanthanum-modified clay on to watercraft utilized for chemical applications (i.e., discharges) must be done with the vessel behind the installed double turbidity curtains.
        ii. Watercraft utilized for lanthanum-modified clay applications must carry only enough lanthanum-modified clay to apply to the treatment area(s) being treated at any given time.
    b. Plans to ensure that the rate of application is consistent with product label requirements for the targeted phosphorus reduction.
    c. The Discharger's plan for educating its staff and lanthanum-modified clay applicators on how to avoid any potential adverse effects from the chemical applications. Minimum education BMPs must include:
        i. The application of the lanthanum-modified clay must be conducted by and under an authorized/licensed applicator.
        ii. The lanthanum-modified clay applicator and associated staff must have safety training for lanthanum-modified clay

applications addressing the lanthanum-modified clay product and its associated hazards, provide record of training or experience working with lanthanum-modified clay **90 days prior to application**.

iii. The lanthanum-modified clay applicator must conduct daily morning safety briefings prior to starting any lanthanum-modified clay applications.

d. Plans to prevent lanthanum-modified clay migration to receiving waters adjacent to the main lagoon west channel entrance to Lake Tahoe and Pope Marsh downstream of Lake Tallac during the treatment event. Minimum containment BMPs must include:

i. Boat traffic must be limited to only that necessary to implement the project during application and while turbidity curtains are in place.

ii. Prior to applying lanthanum-modified clay, turbidity curtains must be installed in the locations identified on the Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations map in Attachment C to prevent lanthanum-modified clay and turbidity migration from the Tahoe Keys Lagoons to Lake Tahoe. If turbidity curtain locations are revised in response to revised treatment area locations reported per VI.C.4 above, the Discharger must reflect such revised barrier locations on the map submitted per VI.C.4.

e. Measures to take in the event of the application causing an exceedance of receiving water limitations in receiving waters. Such measures must include but are not limited to ceasing the discharge, notifying the Lahontan Water Board, and remedying the exceedance by implementing additional BMPs and control measures. The Discharger must take all reasonable steps to minimize or correct any adverse impact on the environment resulting from lanthanum-modified clay discharges, such as accelerated or additional monitoring as may be necessary to determine the nature, extent, and effect of the receiving water limitation exceedance.

C. LMCAP Processing, Approval, and Modifications

Upon receipt of the LMCAP, Lahontan Water Board staff will review the plan for completeness. If Lahontan Water Board staff determines the LMCAP is acceptable they will recommend to the Executive Officer approval of the LMCAP. If the LMCAP is determined to be incomplete, the Discharger must address the Lahontan Water Board staff comments and resubmit the LMCAP for Executive Officer approval. The LMCAP described in VII.B, above, must be approved by the Executive Officer prior to any lanthanum-modified clay applications. Any major changes to the LMCAP made after initial LMCAP

approval must be submitted to the Executive Officer for approval. Examples of major changes include but are not limited to changing an application method that may result in different amounts of lanthanum-modified clay being applied or adding or removing BMPs.

D. Lanthanum-Modified Clay Application Log

The Discharger must maintain a log for each lanthanum-modified clay application. This log must contain, at a minimum, the following information:

1. Date and time of application;
2. Location of application;
3. Name of applicator;
4. The quantity of lanthanum-modified clay used for each treatment.
5. Application method and concentration;
6. Visual monitoring assessment; and
7. Certification that applicator(s) implemented the LMCAP and implemented the minimum BMPs identified in VII.B.2, above.

VIII. PROVISIONS

A. Standard Provisions

1. The Discharger must comply with all Standard Provisions included in Attachment D.
2. The Discharger must comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:
   a. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liabilities under federal, state, or local laws, nor guarantee the Discharger a capacity right in the receiving waters.
   b. All discharges authorized by this Order must be consistent with the terms and conditions of this Order.
   c. Pursuant to Water Code section 13263, subdivision (g), no discharge of waste into the waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.
   d. The Discharger must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

e. A copy of the NPDES permit must be kept at the Facility and be available at all times to operating personnel.

f. Provisions of the permit are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

g. In the event the Discharger is unable to comply with any of the conditions of this Order due to:

   i. breakdown or serious malfunction of equipment;

   ii. accidents caused by human error or negligence;

   iii. over application of chemicals; or

   iv. other causes such as acts of nature,

   the Discharger must notify the Lahontan Water Board Executive Officer as soon as the Discharger or the Discharger's agents have knowledge of any discharge in violation of this permit, or any emergency discharge or other discharge to the receiving water, in accordance with the notification requirements in the Standard Provisions for NPDES Permits, included in this Order as Attachment D.

h. If a Discharger becomes aware that any information submitted to the Lahontan Water Board is incorrect, the Discharger must immediately notify the Lahontan Water Board, in writing, and correct that information.

i. Once the Discharger has ceased all discharges from the application of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay covered under this Order, the Discharger must notify the Lahontan Water Board in writing and request that the permit be rescinded.

j. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

k. In the event of any noncompliance with this Order, the Discharger must notify the Lahontan Water Board by telephone [(530) 542-5400] within 24 hours of having knowledge of such noncompliance, and must confirm this notification in writing within five (5) days, unless the Lahontan Water Board waives confirmation in writing. The written notification must state the nature, time, duration, and cause of noncompliance, and must describe the measures being taken to

remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Additional detail regarding the information to be provided is provided in section V.G of the Monitoring and Reporting Program (Attachment E).

3. This Order does not authorize any take of endangered species. The discharge is prohibited from adversely impacting biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or state endangered species laws.
4. The Discharger must utilize pesticide products labelled and approved for aquatic use by the California Department of Pesticide Regulation and follow all pesticide label instructions for the endothall and triclopyr products selected for use.
5. The Discharger must comply with effluent and receiving water limitations and must develop and implement Best Management Practices (BMPs) for discharges of endothall, triclopyr, Rhodamine WT and lanthanum-modified clay.
6. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Lahontan Water Board.
7. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed monitoring program must be properly maintained and calibrated based on manufacturer's recommendations to ensure their continued accuracy.

B. Monitoring and Reporting Program Requirements

The Discharger must comply with the Monitoring and Reporting Program (MRP) in Attachment E and future revisions thereto, as specified by the Executive Officer.

C. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Federal Water Pollution Control Act or amendments thereto, the Lahontan Water Board may reopen and modify this Order in accordance with such more stringent standards.

b. The Lahontan Water Board may reopen this Order to establish new conditions, receiving water limitations, effluent limitations, or BMPs should monitoring data, toxicity testing data, or other new information indicate that a pollutant is discharged at a level that will cause, have reasonable potential to cause, or contribute to an in-stream excursion above any water quality standard.

c. This Order may be reopened for modification and reissuance in accordance with the provisions contained in title 40 Code Federal Regulation (40 C.F.R.) section 122.62, and for the following reason:

i. Endangered Species Act. If U.S. EPA develops biological opinions regarding the endothall, triclopyr and Rhodamine WT or lanthanum-modified clay included in this Order, this Order may be reopened to add or modify receiving water limitations for aquatic herbicides and their residues of concern, Rhodamine WT or lanthanum-modified clay and its residues, if necessary.

ii. Approval of ProcellaCOR. If the California Department of Pesticide Regulation approves the use of ProcellaCOR in California, this Order may be reopened to add or modify requirements associated with the application of ProcellaCOR.

2. **Special Studies, Technical Reports, and Additional Monitoring Requirements**

a. **Additional Investigation.** The Discharger must conduct additional investigations when the chemical monitoring shows exceedance of any receiving water limitation. The discharger must demonstrate compliance with receiving water limitation at all times outside of the treatment areas. The Discharger must demonstrate compliance with receiving water limitations in treatment areas within 21 days after the application event. The additional investigations must identify corrective actions to eliminate exceedance of receiving water limitations caused by the aquatic herbicide, Rhodamine WT or lanthanum-modified clay applications. The investigation must include, but not be limited to evaluating the need to implement additional control measures including revising and improving the existing BMPs, revising the mode and rate of application, or other control methods proposed by the Discharger.

b. **Qualified Biologist* Certification Following Project Completion.** Upon conclusion of all aquatic herbicide treatment events for the aquatic weed control methods test project, the Discharger must provide certification by a qualified biologist that beneficial uses of receiving waters have been restored to pre-project conditions. Annual biologic monitoring must be conducted until a qualified biologist certifies that beneficial uses of receiving waters have been restored to pre-project conditions.

3. **Corrective Action**

a. **Exceedance of Receiving Water Limitations.** If a receiving water limitation in Table 4 is exceeded in an application event or post-application event sample, the Discharger must perform the following

actions: (1) initiate additional investigations for the cause of the exceedance, (2) implement appropriate BMPs to correct the residual aquatic herbicide, Rhodamine WT or lanthanum-modified clay-induced receiving water limitation exceedance(s) to achieve compliance with the applicable receiving water limitation(s), and (3) evaluate the appropriateness of using reduced application rates in treatment areas not yet treated.

i. Dissolved Oxygen. The Discharger must implement an active aeration system, as proposed by the Discharger, when the following conditions occur:

- Dissolved oxygen (DO) concentration trends indicate concentrations may fall below 5 mg/L (a seven day mean) in a depth integrated composite sample from the treatment area(s), and
- The DO in any treatment area, post-discharge, is more than 10% lower, as a percent of DO saturation, than that of comparable control site(s).

b. **Revision of Control Measures.** If any of the following situations occur, the Discharger must review and, as necessary, revise existing BMPs or provide additional BMPs and other control measures to ensure that the situation is corrected:

i. An unauthorized release or discharge associated with the application of aquatic herbicides, Rhodamine WT or lanthanum-modified clay (e.g., spill, leak, or discharge not authorized by this Order) occurs;

ii. The Discharger becomes aware, or the Lahontan Water Board concludes, that the BMPs and other control measures are not adequate/sufficient for the discharge to meet applicable receiving water limitations;

iii. Any monitoring activities indicate that the Discharger failed to:

a) Follow the label instructions for the aquatic herbicide, Rhodamine WT or lanthanum-modified clay product used;

b) Use the minimum amount of aquatic herbicide, Rhodamine WT or lanthanum-modified clay product for each application event for an effective control methods test (i.e., target reduction of aquatic invasive weed coverage) consistent with minimizing impacts to receiving waters;

c) Perform regular maintenance activities to reduce leaks, spills, or other unintended discharges of aquatic herbicides, Rhodamine WT or lanthanum-modified clay

during storage, transport and product application associated with the aquatic weed control methods test;

d) Maintain aquatic herbicide, Rhodamine WT or lanthanum-modified clay application equipment in proper operating condition by adhering to any manufacturer's conditions and industry practices, and by calibrating, cleaning, and repairing such equipment on a regular basis to ensure effective implementation of aquatic herbicide, Rhodamine WT or lanthanum-modified clay applications as authorized by this Order.

c. **Corrective Action Deadlines.** If the Discharger or Lahontan Water Board determine that changes to the BMPs or other control measures are necessary to eliminate any situation identified, above, the Discharger must develop and implement such changes prior to commencing any additional applications to untreated control methods test treatment areas.

d. **Effect of Corrective Action.** The occurrence of a situation identified in section C.3.b, above, may constitute a violation of this Order. Correcting the situation according to Corrective Action section C.3.c, above, does not absolve the Discharger of liability for such violations. However, failure to comply with any Corrective Action as required by section C.3.c, above, constitutes an additional permit violation. The Lahontan Water Board will consider the appropriateness and promptness of corrective action in determining enforcement responses to violations of this Order.

The Lahontan Water Board may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) triggering corrective action or schedules and requirements more stringent than specified in this Order. Those requirements and schedules will supersede those in the Corrective Action Section, above, if such requirements conflict.

4. **Adverse Incident to Threatened or Endangered Species or Critical Habitat**

If the Discharger becomes aware of an adverse incident to a federally-listed threatened or endangered species or its federally-designated critical habitat, that may have resulted from the Discharger's aquatic herbicide, Rhodamine WT or lanthanum-modified clay applications, the Discharger must immediately notify the U.S. Fish and Wildlife Service (FWS) at (916) 414-6600 and the Lahontan Water Board in the case of an incident with terrestrial or freshwater species. This notification must be made by telephone immediately when the Discharger becomes aware of the adverse incident and must include at least the following information:

a. The caller's name, telephone number, and e-mail address;

b. Applicator name and mailing address;

c. The name of the affected species;

d. How and when the Discharger became aware of the adverse incident;

e. Description of the location of the adverse incident;

f. Description of the adverse incident, including the U.S. EPA pesticide registration number, the Rhodamine WT product information and/or the lanthanum-modified clay product information for each product applied in the area of the adverse incident; and

g. Description of any steps that have been taken or will be taken to eliminate and/or mitigate the adverse impact to the species.

Additional information on federally-listed threatened or endangered terrestrial or freshwater species and federally-designated critical habitat is available from the FWS website (www.fws.gov).

5. **Operation and Maintenance Specifications**

a. Any solid waste products generated from aquatic herbicide, Rhodamine WT or lanthanum-modified clay application activities must be disposed of in a manner approved by the Lahontan Water Board and consistent with the Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in the California Code of Regulations, title 27, division 2, subdivision 1, section 20005, et seq.

b. All chemicals not discharged in accordance with the provisions of this Order must be disposed of in an environmentally safe manner, according to label guidelines, Material Safety Data Sheet guidelines and the Discharger's BMP plans (see sections VI.C, VII.A and VIII.A of this Order). Any other form of disposal requires approval from the Lahontan Water Board.

c. All facilities and equipment used for storage and transport of chemicals to treatment areas must be routinely inspected and adequately maintained to prevent leaks and spills.

IX. COMPLIANCE DETERMINATION

Compliance with the receiving water limitations prescribed in Section V of this Order will be determined by assessment of the results of the event and post-event monitoring conducted in accordance with Attachment E.

The discharger must demonstrate compliance with receiving water limitations at all times outside of the treatment areas. Within treatment areas, the discharger must demonstrate compliance with receiving water limitations within 21 days after the

application event. This demonstration must use sample reporting protocols defined in Attachment E and Attachment A of this Order.

For purposes of reporting and enforcement by the Lahontan Water Board, the Discharger shall be determined to be out of compliance with receiving water limitations if residual aquatic herbicide, Rhodamine WT or lanthanum-modified clay discharges cause the pollutant concentrations, as reflected by monitoring sample results, to exceed receiving water limitations established in this Order and greater than or equal to the reporting level (RL).

Attachment A – Definitions

Active Ingredient

Active ingredients are ingredients disclosed by manufacturers that yield toxic effects on target organisms.

Adjuvants

Adjuvants are ingredients that are mixed with herbicides prior to an application event and are often trade secrets. These ingredients are chosen by the Discharger, based on site characteristics, and typically increase the effectiveness of pesticides on target organisms.

Adverse Incident

Adverse Incident means a situation where the Discharger observes upon inspection or becomes aware of in which:

- A person or non-target organism may have been exposed to an aquatic herbicide residue, free lanthanum or Rhodamine WT; and
- The person or non-target organism suffered an adverse or toxic effect.

Adverse or Toxic Effect

An “adverse or toxic effect” includes any impact that occurs within waters of the United States on non-target organisms as a result of aquatic herbicide residue discharges or any organisms as a result of Rhodamine WT or lanthanum-modified clay discharges. Examples of these effects may include:

- Distressed or dead juvenile and small fishes
- Washed up or floating fish
- Fish swimming abnormally or erratically
- Fish lying lethargically at water surface or in shallow water
- Fish that are listless or nonresponsive to disturbance
- Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants
- Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

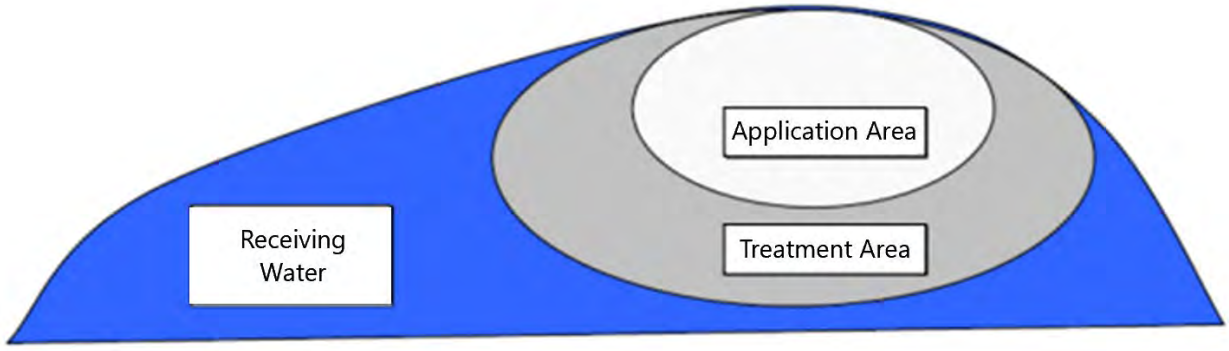
An “adverse or toxic effect” also includes any adverse effects to humans (e.g., skin rashes) or domesticated animals that occur either directly or indirectly from a discharge to waters of the United States that are temporally and spatially related to exposure to aquatic herbicide residues, Rhodamine WT or lanthanum-modified clay (e.g., vomiting, lethargy).

Algae Control

Algae control means the treatment of filamentous algae, cyanobacteria (blue-green algae), or algal species that have the potential to affect human or environmental health.

Application Area

The application area is the area to which aquatic pesticides are directly applied.



Application Event

The application event is the time that introduction of the aquatic herbicide to the treatment area takes place, not the length of time that the environment is exposed to the aquatic herbicide.

Aquatic Pesticides

Aquatic pesticides in this Order are limited to aquatic herbicides labeled for aquatic use to control aquatic weeds.

Beneficial Uses

Beneficial uses of the waters of the state that may be protected against quality degradation. For receiving waters specified in this Order, applicable beneficial uses are Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Water-Contact Recreation (REC-1); Non-Water-Contact Recreation (REC-2); Navigation (NAV); Commercial and Sport Fishing (COMM); Cold Freshwater habitat (COLD); Wildlife Habitat (WILD); Preservation of Biological Habitats of Special Significance (BIOL); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction and Development of Fish and Wildlife (SPWN); Preservation of Rare and Endangered Species (RARE), Water Quality Enhancement (WQE); and Flood Peak Attenuation/Flood Water Storage (FLD).

Best Management Practices (BMPs)

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, and solids or waste disposal.

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the reporting limit (RL), but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Half-Life

Half-life is the time required for half of the compound introduced into an ecosystem to be eliminated or disintegrated by natural processes.

Inert Ingredients

Inert ingredients in aquatic herbicide, Rhodamine WT and lanthanum-modified clay product formulations are additional ingredients and are often trade secrets; therefore, they are not always disclosed by the manufacturer.

Instantaneous Maximum Limit

The maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in in 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)

ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Not Detected (ND)

Sample results which are less than the laboratory's MDL.

Qualified Biologist

A qualified biologist is a biologist who has the knowledge and experience in the ecosystem where the aquatic herbicide is applied so that he or she can adequately evaluate whether the beneficial uses of the receiving waters have been protected and/or restored upon completion of the project.

Receiving Waters

Receiving waters are waters of the United States anywhere outside of the treatment area at anytime and anywhere inside the treatment area 21 days after application.

Reporting Level (RL)

The RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Lahontan Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Representative Monitoring Location

To be considered “representative,” at a minimum, a location must be similar in hydrology, aquatic herbicide use, and other factors that affect the residual discharge to the areas being represented in that environmental setting.

Residual Aquatic Herbicide

Residual aquatic herbicide are those portions of the pesticides that remain in the water after the application and its intended purpose (injury or elimination of targeted plant species) have been completed.

Self-Monitoring

Sampling and analysis performed by the Discharger to determine compliance with the Permit. All laboratory analyses must be conducted by a laboratory certified by the water Boards.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in the Water Quality Control Plan for the Lahontan Region (Basin Plan).

Treatment Area

The treatment area is the area being treated by the aquatic herbicide for aquatic weed control and, therefore, the area being targeted to receive an appropriate rate of application consistent with product label requirements of aquatic herbicide. It is the responsibility of the Discharger to define the final project treatment areas in the year of treatment for each specific aquatic herbicide application and obtain approval from the Executive Officer for each treatment area prior to application.

Treatment Duration

The treatment duration is the elapsed time from the application event to when the aquatic herbicides have completed their intended purpose (injury or elimination of

targeted plant species) and typically corresponds to the duration aquatic herbicides are at lethal concentrations to the target aquatic plant species in the treatment area.

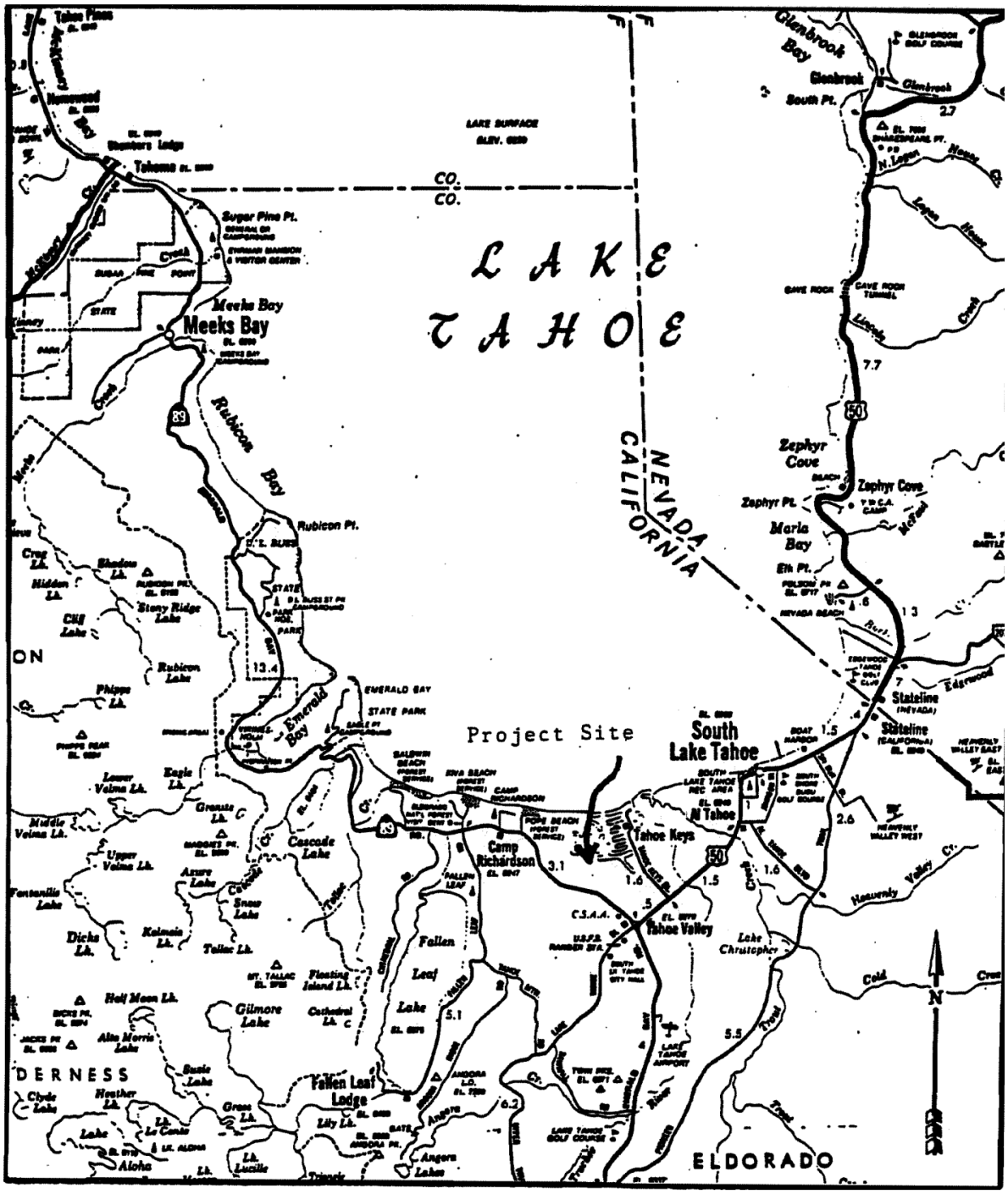
Treatment Event

The treatment event represents treatment activities conducted from introduction of the aquatic herbicide to the treatment area (application event) to full treatment (injury or elimination) of the target plant species in the treatment area at the end of the treatment duration.

Attachment B

A. Location and Facility Maps

Location Map



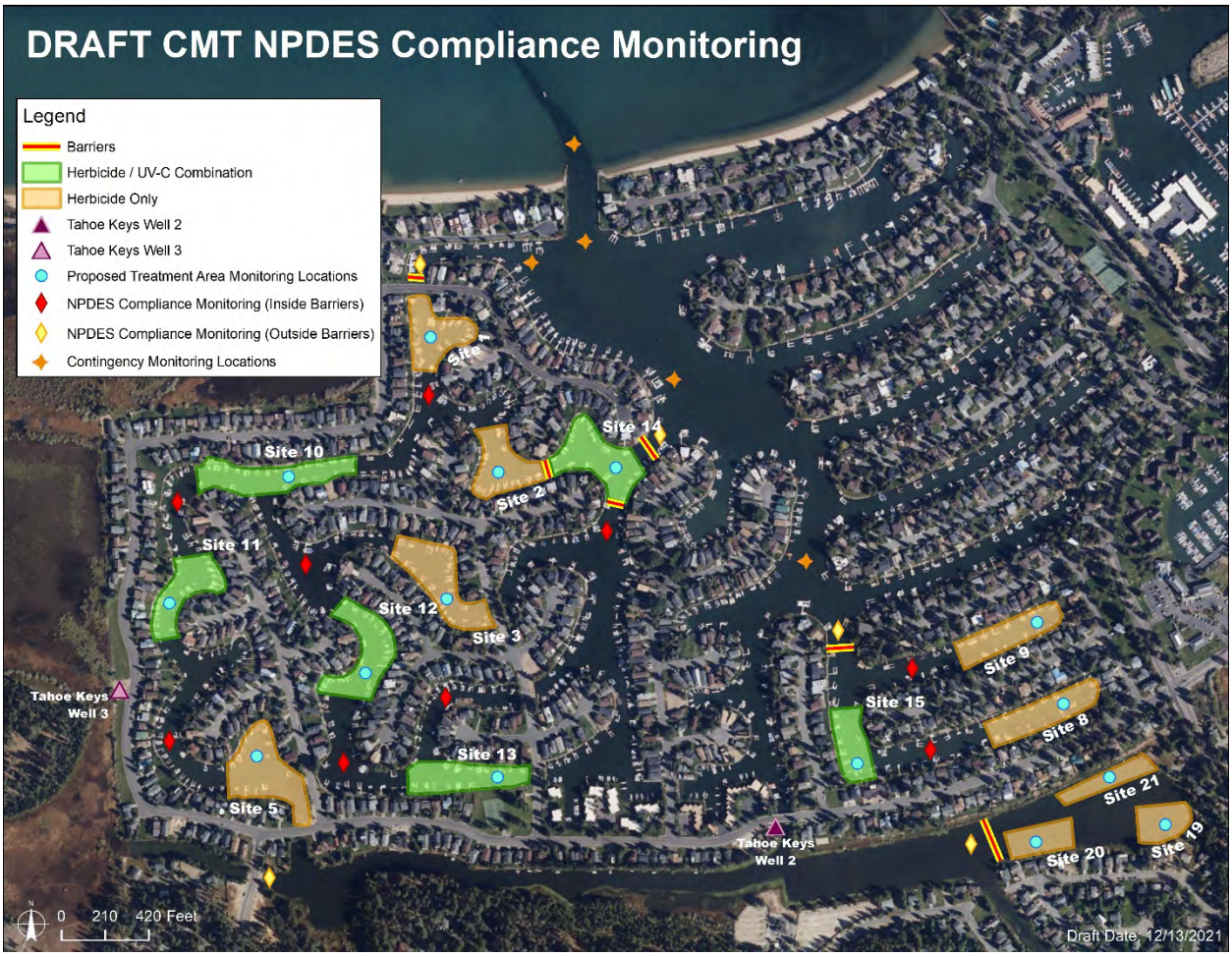
Facility Map

Note:
The Main Lagoon includes all waters inside the West Channel entrance when entering from Lake Tahoe. The Marina Lagoon includes all waters inside the East Channel entrance when entering from Lake Tahoe.

Attachment C

Treatment Area and Monitoring Location Maps

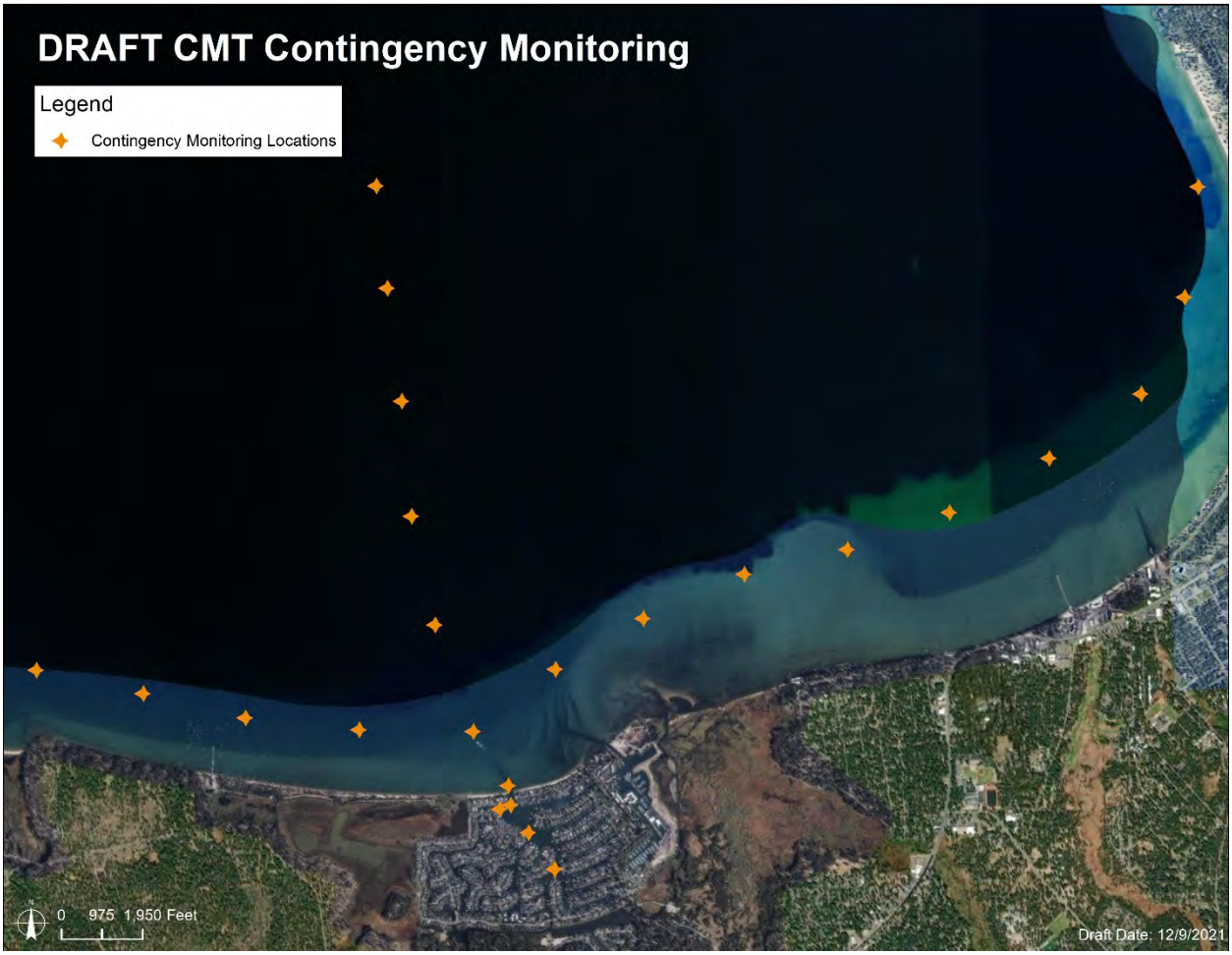
Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations



Note:

Final treatment areas and receiving water monitoring locations inside the Main Lagoon may change based on year of treatment aquatic plant survey results.

Contingency Monitoring Locations



Attachment D – Standard Provisions

I. STANDARD PROVISIONS – PERMIT COMPLIANCE (IF APPLICABLE)

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the CWA and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application; or a combination thereof. (40 C.F.R. §122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger must comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. §122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. §122.41(c).)

C. Duty to Mitigate

The Discharger must take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. §122.41(d).)

D. Proper Operation and Maintenance

The Discharger must at all times properly operate and maintain all facilities and systems of control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. (40 C.F.R. §122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. §122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. §122.5(c).)

F. Inspection and Entry

The Discharger must allow the Lahontan Water Board, State Water Board, United States Environmental Protection Agency (U.S. EPA), and/or their authorized representatives (including an authorized contractor acting as their

representative), upon the presentation of credentials and other documents, as may be required by law, (40 C.F.R. §122.41(i); Water Code, §13383) to:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
4. Sample or monitor, at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location.

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. §122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain authorization as required by the new permit. (40 C.F.R. §122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Lahontan Water Board. The Lahontan Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. §122.41(l)(3); §122.61.)

D. Continuation of this Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 C.F.R. section 122.6 and remain in full force and effect.

III. STANDARD PROVISIONS – MONITORING

Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity. (40 C.F.R. §122.41(j)(1).)

Monitoring results must be conducted according to test procedures under 40 C.F.R. part 136 unless other test procedures have been specified in this Order. (40 C.F.R. §122.41(j)(4); §122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Records Retention

The Discharger must retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Lahontan Water Board's Executive Officer at any time. (40 C.F.R. §122.41(j)(2).)

B. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. §122.41(j)(3)(i).);
2. The individual(s) who performed the sampling or measurements (40 C.F.R. §122.41(j)(3)(ii).);
3. The date(s) analyses were performed (40 C.F.R. §122.41(j)(3)(iii).);
4. The individual(s) who performed the analyses (40 C.F.R. §122.41(j)(3)(iv).);
5. The analytical techniques or methods used (40 C.F.R. §122.41(j)(3)(v).); and
6. The results of such analyses. (40 C.F.R. §122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. §122.7(b).):

1. The name and address of any permit applicant or Discharger (40 C.F.R. §122.7(b)(1).); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. §122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger must furnish to the Lahontan Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Lahontan Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger must also furnish to the Lahontan Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. §122.41(h); Wat. Code, §§13267 and 13383)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Lahontan Water Board, State Water Board, and/or U.S. EPA must be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, V.B.6, V.B.7 and V.B.8 below. (40 C.F.R. §122.41(k).)

2. For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

3. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively;

4. For a municipality, state, federal, or other public agency: All permit applications must be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. §122.22(a)(3).)

5. All reports required by this Order and other information requested by the Lahontan Water Board, State Water Board, or U.S. EPA must be signed by a person described in Standard Provisions – Reporting V.B.1 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.1 above (40 C.F.R. §122.22(b)(1).);

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity or an individual or a position having overall responsibility for environmental matters for the company. (A duly authorized

representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. §122.22(b)(2).); and

c. The written authorization is submitted to the Lahontan Water Board and State Water Board. (40 C.F.R. §122.22(b)(3).)

6. If an authorization under Standard Provisions – Reporting V.B.1 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.1 above must be submitted to the Lahontan Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. §122.22(c).)

7. Any person signing a document under Standard Provisions – Reporting V.B.5 above must make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. §122.22(d).)

8. Any person providing the electronic signature for documents described in Standard Provisions – Reporting section V.B.1 that are submitted electronically must meet all relevant requirements of Standard Provisions – Reporting section V.B, and must ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. [40 C.F.R. § 122.22(e)]

C. Monitoring Reports

1. Monitoring results must be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. §122.22(l)(4).)

2. Monitoring results must be reported on a Self-Monitoring Report (SMR) form as agreed to by the Executive Officer and the Discharger.

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R part 136 or as specified in this Order, the results of this monitoring must be included in the calculation and reporting of the data submitted in the SMR or a reporting form specified by the Lahontan Water Board. (40 C.F.R. §122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, must utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. §122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, must be submitted no later than 14 days following each schedule date. (40 C.F.R. §122.41(l)(5).)

E. Planned Changes

The Discharger must give notice to the Lahontan Water Board as soon as possible of any planned physical alterations or additions to the permitted activity or discharge. Notice is required under this provision (40 C.F.R. §122.41(l)(1)) only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. section 122.42(a)(1).

F. Anticipated Noncompliance

The Discharger must give advance notice to the Lahontan Water Board of any planned changes in the permitted discharge or activity that may result in noncompliance with Order requirements. (40 C.F.R. §122.41(l)(2).)

G. Other Noncompliance

The Discharger must report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports must contain the information listed in Standard Provision – Reporting V.F above. (40 C.F.R. §122.41(l)(7).)

H. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the State Water Board, Regional Water Board, or U.S. EPA, the Discharger must promptly submit such facts or information. (40 C.F.R. §122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

The Lahontan Water Board and the State Water Board are authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, sections 13268, 13350, 13385, 13386, and 13387.

Attachment E – Monitoring and Reporting Program

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List of Tables

Attachment E – Monitoring and Reporting Program

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Lahontan Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein must be representative of the nature of the monitored discharge. All samples must be taken at the approved NPDES monitoring locations specified in the Discharger's APAP map, and at the locations specified on the "Contingency Monitoring Locations in Lake Tahoe" map in Attachment C. Monitoring locations must not be changed without notification to and the approval from the Lahontan Water Board Executive Officer.

In the event a certified laboratory is not available to the Discharger, analyses performed by a non-certified laboratory or using field test kits will be accepted provided that a Quality Assurance/Quality Control Program (QA/QC) is instituted by the laboratory and approved by the Executive Officer. Documentation of QA/QC protocols and adherence to the protocols must be kept in the laboratory or at the site for field test kits and shall be available for inspection by Lahontan Water Board staff. The QA/QC Program must conform to State Water Resources Control Board (State Water Board) and USEPA guidelines or to procedures approved by the Lahontan Water Board. Refer to https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html for specific details on QA/QC program requirements. Supplemental field testing for constituents that could be analyzed by a certified laboratory may be done in the field with test kits and meters provided:

1. Samples collected at the minimum-required monitoring frequencies are performed by a certified lab,
2. A QA/QC program approved by the Executive Officer or Designee is followed,
3. Detection limits, accuracy, and precision of the kits and meters meet USEPA and Surface Water Ambient Monitoring Program (SWAMP) standards, and
4. All results for field testing must be reported to the Lahontan Water Board in quarterly and annual self-monitoring reports (SMRs). Supporting QA/QC data must be determined using an established program and retained onsite and reported if requested.

B. Samples must be collected at such a point and in such a manner to ensure a representative sample of the discharge.

C. **Laboratory Certification**: Laboratories analyzing monitoring samples shall be certified by the State Water Board, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

D. All analyses must be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants," promulgated by the U.S. EPA in title 40 Code Federal Regulation (40 C.F.R.) 136 or equivalent methods that are commercially and reasonably available and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable receiving water limits. Equivalent methods must be more sensitive than those specified in 40 C.F.R. 136 if the method is available in the 40 C.F.R. 136, and must be approved for use by the Lahontan Water Board Executive Officer.

   Any procedures to prevent the contamination of samples as described in the monitoring program in the APAP must be implemented.

E. Records of monitoring information must include the following:

   1. The date, monitoring location, and time of sampling or measurements;
   2. The individuals who performed the sampling or measurements;
   3. Visual observation at the sampling location for any physical changes such as signs of harmful algal blooms or floating material.
   4. The dates analyses were performed;
   5. The individuals who performed the analyses;
   6. The analytical techniques or methods used; and
   7. Results of analyses.

F. All monitoring instruments and devices used to fulfill the prescribed monitoring program must be properly maintained and calibrated as necessary to ensure their accuracy.

G. Monitoring results, including noncompliance, must be reported at intervals and in a manner specified in this MRP.

II. SAMPLE TYPES AND MONITORING LOCATIONS

A. Sample Types

The following monitoring is required for each sampling event:

1. **Background Monitoring.** Background monitoring samples must be collected in the application areas described within treatment areas specified in the Discharger's APAP and LMCAP just prior to (within 7 days in advance of) the application event.

2. **Event Monitoring.** Event monitoring samples must be collected at receiving water monitoring locations outside of the treatment areas specified in the Discharger's APAP and LMCAP immediately after the application event, but after sufficient time has elapsed such that treated water could have exited the treatment area.
3. **Post-Event Monitoring.** Post-event monitoring samples must be collected at the treatment area and receiving water monitoring locations specified in the Discharger's APAP, and LMCAP within seven (7) days after the application event and continue weekly at all treatment area and receiving water monitoring stations until compliance with receiving water limits is demonstrated for two consecutive monitoring events at least 48-hours and no greater than seven (7) days apart.
4. **Contingency Monitoring.** If monitoring at contingency monitoring stations is required as described below, contingency monitoring must be conducted at the contingency monitoring locations specified on the "Contingency Monitoring Locations in Lake Tahoe" map in Attachment C.

B. Monitoring Locations

The Discharger must monitor at the locations specified in the Discharger's APAP and LMCAP and, if applicable, the "Contingency Monitoring Locations in Lake Tahoe" map in Attachment C to demonstrate compliance with the receiving water limitations, discharge specifications, and other requirements in this Order. If monitoring locations are revised in response to revised treatment area locations reported per section VI.C.4 of this Order, the Discharger must reflect such revised monitoring locations on the map submitted per section VI.C.4 of this Order.

The following number and location of samples must be provided at a minimum:

1. A minimum of one monitoring location must be located in each treatment area that receives an aquatic herbicide, and Rhodamine WT application .
2. Receiving water monitoring locations must be located outside of the treatment area boundary at the locations specified in the Discharger's APAP and LMCAP. Where a treatment area has receiving waters on each side of the treatment area (e.g., is not at the end of a lagoon arm), two receiving water monitoring locations must be provided on either side of the treatment area. For receiving waters located between two treatment areas, a single receiving water monitoring station must be provided to meet monitoring location requirements for both treatment areas.
3. Contingency monitoring locations must be located in the Main Lagoon and within Lake Tahoe at the locations specified in the "Contingency Monitoring Locations in Lake Tahoe" map in Attachment C. Receiving water monitoring must occur at contingency monitoring locations if aquatic herbicide residues, Rhodamine WT or other receiving water limitations are exceeded at any

receiving water monitoring station adjacent to contingency monitoring locations within the Main Lagoon.

4. Pre-biologic and post-biologic monitoring locations must be provided in each treatment area. Pre- and post-biologic monitoring must be conducted at the same locations in each treatment area.
5. A minimum of one surface water monitoring location and one sediment monitoring location must be located in each treatment area that receives a lanthanum-modified clay discharge.
6. The Discharger must monitor Tahoe Keys Water Company drinking water supply at well numbers 2 and 3 illustrated on the “Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations” map in Attachment C.

The Discharger must ensure monitoring locations characterize water quality within the treatment areas and receiving waters, including contingency monitoring locations, and control monitoring location that are representative of variations in field conditions.

III. RECEIVING WATER MONITORING REQUIREMENTS

A. General Monitoring Requirements

Compliance with the receiving water limitations prescribed in Section V of this Order will be determined by assessment of the results of the event and post-event monitoring. The discharger must demonstrate compliance with receiving water limitations at all times outside of the treatment areas. The discharger must demonstrate compliance with receiving water limitations in 21 days after the application event.

If receiving water limitations for residual aquatic herbicide or Rhodamine WT or other monitoring parameters are exceeded at a monitoring station, monitoring must be conducted at least once per seven (7) days at that station until the discharger is in compliance with receiving water limitations for two consecutive monitoring events at the monitoring station, with the monitoring events occurring no more than seven (7) days apart.

If receiving water limitations for residual aquatic herbicide, Rhodamine WT or other monitoring parameters are exceeded at a receiving water or contingency monitoring station, receiving water monitoring must be extended to the next, nearest contingency monitoring station toward Lake Tahoe within the Main Lagoon specified on the “Contingency Monitoring Locations in Lake Tahoe” maps in Attachment C. Contingency monitoring must be extended out to the additional contingency monitoring stations within the Main Lagoon and into Lake Tahoe until the discharger demonstrates compliance with receiving water limitations and, if not in compliance with receiving water limits at a monitoring station, continue at a least once per seven (7) days at that station until the discharger is in compliance with receiving water limitations for two consecutive monitoring events a minimum of 48-hours apart.

The Discharger must collect all monitoring data specified in Table E-1 and E-2 below for all monitoring events including extended monitoring at contingency monitoring stations when one or more parameters exceed receiving water limits.

B. Visual, Physical, and Chemical Monitoring Requirements

Monitoring must take place at the receiving water monitoring locations that are described in the Discharger's approved APAP and LCAMP and contingency monitoring locations specified on the "Contingency Monitoring Locations in Lake Tahoe" map in Attachment C. Monitoring for all active ingredients and basic water quality parameters must include frequent and routine monitoring per the frequencies and requirements summarized in Tables E-1 and E-2 below:

.

Table E-1. Residual Aquatic Herbicide and Rhodamine WT Discharge Monitoring Requirements

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sampling Frequency	Sample Type Requirement	Required Analytical Test Method
Visual	1. Monitoring area description (lake, open waterway, channel, etc.) 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.)	Not applicable	Visual Observation	[Reference Note 1 following Table E-1]	Background, Event and Post-event Monitoring	Not Applicable
Physical	Temperature	ºF	Grab [Reference Note 4 following Table E-1]	[Reference Note 5 following Table E-1]	Background, Event and Post-event Monitoring	[Reference Notes 2 and 6 following Table E-1]
Physical	pH	Number	Grab [Reference Note 4 following Table E-1]	[Reference Note 5 following Table E-1]	Background, Event and Post-event Monitoring	[Reference Notes 2 and 6 following Table E-1]
Physical	Turbidity	NTU	Grab [Reference Note 4 following Table E-1]	[Reference Note 5 following Table E-1]	Background, When Placing Turbidity Barriers and When Removing Turbidity Barriers	[Reference Notes 2 and 6 following Table E-1]

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sampling Frequency	Sample Type Requirement	Required Analytical Test Method
Chemical	Dissolved Oxygen	mg/L	Grab [Reference Note 4 following Table E-1]	[Reference Note 5 following Table E-1]	Background, Event and Post-event Monitoring	[Reference Note 2 and 6 following Table E-1]
Chemical	Chemical/Residue [Reference Note 7 following Table E-1]	µg/L	Composite [Reference Note 4 following Table E-1]	[Reference Note 5 following Table E-1]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-1]

Notes:

1. Frequency of visual monitoring is to collect the specified visual information at each monitoring location for each monitoring event (i.e., background, event, and post-event).
2. Field testing with hand-held multiprobe for temperature, pH, dissolved oxygen and turbidity.
3. Certified Laboratory testing.
4. Grab sample or multi-probe measurements of temperature, pH, turbidity and dissolved oxygen to be taken as discrete measurements from the surface, mid-depth, and near bottom within the water column. Chemical/residue measurements must be collected as composited water samples consisting of samples of equal volume from near the surface (15-30 cm below surface), mid-depth, and 25-30 cm from the bottom mixed (combined) to form a composite sample.
5. Results from a minimum one sample from each monitoring location for background and event monitoring events must be analyzed and reported. Results from a minimum two samples from each monitoring location for post-event monitoring events collected no more than seven (7) days apart must be analyzed and reported. When receiving water limitations for residual aquatic herbicide or Rhodamine WT or other monitoring parameters are exceeded at a monitoring station, monitoring must be conducted at least once per seven (7) days at that station until the discharger is in compliance with receiving water limitations for two consecutive monitoring events a minimum of 48 hours apart at the monitoring station. Results from turbidity monitoring before placement, during placement and during removal of turbidity barriers must be analyzed and reported. Measurements must be hourly during placement/removal of the barriers and daily following placement/removal until compliance with the turbidity water quality objective is demonstrated.

6. Pollutants must be analyzed using the analytical methods described in 40 C.F.R. part 136. Where no methods are specified for a given pollutant, pollutants must be analyzed by a method proposed by the Discharger and approved by the Lahontan Water Board Executive Officer.
7. Endothall acid (CAS# 145-73-3), endothall dipotassium salt (CAS# 2164-07-0), triclopyr acid (CAS# 55335-06-3), TCP (CAS# 6515-38-4), 3,6-DCP (CAS# 57864-39-8), Rhodamine WT (CAS# 37299-86-8)

Table E-2. Monitoring Requirements for Lanthanum-Modified Clay Discharges

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sampling Frequency	Sample Type Requirement	Required Analytical Test Method
Visual	1. Monitoring area description 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.)	Not applicable	Visual Observation	[Reference Note 1 following Table E-2]	Background, Event and Post-event Monitoring	Not Applicable
Physical	Temperature	^{o}F	Grab [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 2 and 6 following Table E-2]
Physical	pH	Number	Grab [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 2 and 6 following Table E-2]

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sampling Frequency	Sample Type Requirement	Required Analytical Test Method
Physical	Turbidity	NTU	Grab [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 2 and 6 following Table E-2]
Chemical	Dissolved Oxygen	mg/L	Grab [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 2 and 6 following Table E-2]
Chemical	Free Lanthanum – water	µg/L	Composite [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-2]
Chemical	Total B– sediment	µg/kg	Grab [Reference Note 4 following Table E-2]	[Reference Note 7 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-2]
Chemical	Alkalinity	mg/L $CaCO_3$	Composite [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-2]

Chemical	Total Suspended Solids	mg/L	Composite [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-2]
Chemical	Free Reactive Phosphorus	mg/L	Composite [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-2]
Chemical	Total Phosphorus – water	mg/L	Composite [Reference Note 4 following Table E-2]	[Reference Note 5 following Table E-2]	Background, Event and Post-event Monitoring	[Reference Note 3 and 6 following Table E-2]

Notes:

1. Frequency of visual monitoring is to collect the specified visual information at each monitoring location for each monitoring event (i.e., background, event and post-event).
2. Field testing with hand-held multiprobe for temperature, pH, dissolved oxygen and turbidity.
3. Certified Laboratory testing.
4. Grab sample or multi-probe measurements of temperature, pH, turbidity and dissolved oxygen to be taken as discrete measurements from the surface, mid-depth, and near bottom within the water column. Chemical/residue measurements must be collected as composited water samples consisting of samples of equal volume from near the surface (15-30 cm below surface), mid-depth, and 25-30 cm from the bottom mixed (combined) to form a composite sample. Sediment samples must be collected as grab samples using a Ponar sediment sampling device.
5. Results from a minimum one sample from each monitoring location for background and event monitoring events must be analyzed and reported. When receiving water limitations for residual aquatic herbicide or Rhodamine WT or other monitoring parameters are exceeded at a monitoring station, monitoring must be conducted at least once per seven (7) days at that station until the discharger is in compliance with receiving water limitations for two consecutive monitoring events a minimum of 48 hours apart at the monitoring station. Results from turbidity monitoring before placement, during placement and during removal of

turbidity barriers must be analyzed and reported. Measurements must be hourly during placement/removal of the barriers and daily following placement/removal until compliance with the turbidity water quality objective is demonstrated.

6. Pollutants must be analyzed using the analytical methods described in 40 C.F.R. part 136. Where no methods are specified for a given pollutant, pollutants must be analyzed by a method proposed by the Discharger and approved by the Lahontan Water Board Executive Officer.

7. To address variability in sediment quality, results from a minimum of two samples from each monitoring location for each monitoring event (background, event and post-event) must be analyzed and reported.

IV. OTHER MONITORING REQUIREMENTS

A. Biological Monitoring

The Discharger must characterize impacts of the chemical discharges on aquatic life uses in the treatment areas by using biomonitoring (bioassessment) techniques to document the assemblages of aquatic communities and condition of physical aquatic habitat. Biomonitoring must be conducted for each treatment area a minimum once before the application event and a minimum of annually thereafter. A qualified biologist must provide a certification assessing restoration of non-target aquatic life and benthic communities within treatment areas two years post-treatment. The biomonitoring must be conducted in accordance with the bioassessment protocols specified in the National Lakes Assessment 2017 Field Operations Manual, Version 1.1, April 2017, or equivalent methods approved by the Lahontan Water Board Executive Officer.

1. **Macroinvertebrate Monitoring.** The Discharger must conduct macroinvertebrate monitoring, including benthic macroinvertebrates, as described, above, and in Table E-3. Specific details on timing, frequency and duration of monitoring are as follows:

Table E-3. Macroinvertebrate Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Timing, Frequency and Duration
Macroinvertebrates	IBI	Not applicable	Background Event and Post-Event Monitoring, Annually for a Minimum Two Years

B. Sediment Monitoring

The Discharger must conduct background event- and post-event sediment monitoring for endothall and triclopyr residues in each treatment area. One pre-project and one-post project sediment sample must be collected from each herbicide treatment area and analyzed for Endothall acid, endothall dipotassium salt, triclopyr acid, TCP and 3,6-DCP.

Sediment samples must be collected as grab samples using a Ponar sediment sampling device. Post-event residual aquatic herbicide sediment samples must be collected 21 days after application or at a date no later than required to analyze and provide a Sediment Monitoring Report with the two (2) year post-biological monitoring report and certification. Specific details on frequency and timing are as follows. The Sediment Monitoring Report must include all Table E-4. Sediment Monitoring Requirements.

Table E-4. Sediment Monitoring Requirements

Parameter[1, 3, 4]	Units	Sample Type[2]	Minimum Sampling Frequency
Endothall Acid - sediment	µg/kg	Grab	Background and Post-Event Monitoring
Endothall Dipotassium Salt - sediment	µg/kg	Grab	Background and Post-Event Monitoring
Triclopyr Acid - sediment	µg/kg	Grab	Background and Post-Event Monitoring
TCP - sediment	µg/kg	Grab	Background and Post-Event Monitoring
3,6-DCP - sediment	µg/kg	Grab	Background and Post-Event Monitoring

Notes:

1. Certified Laboratory testing.
2. Sediment samples must be collected as grab samples using a Ponar sediment sampling device.
3. Pollutants must be analyzed using the analytical methods described in 40 C.F.R. part 136. Where no methods are specified for a given pollutant, pollutants must be analyzed by a method proposed by the Discharger and approved by the Lahontan Water Board Executive Officer.
4. To address variability in sediment quality, results from a minimum of two samples from each monitoring location for background and post-event monitoring events must be analyzed and reported.

C. Water Supply Monitoring

The Discharger must conduct background and post-event drinking water supply well monitoring at Tahoe Keys Water Company supply well numbers 2 and 3 illustrated on the “Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations” map in Attachment C. One pre-application event and post-application event drinking water samples must be collected from each well and analyzed for Endothall acid, endothall dipotassium salt, triclopyr acid, TCP and 3,6-DCP.

Post-application event residual aquatic herbicide drinking water well samples must be collected 48-hours after application events and continue every 48-hours until 14-days after completion of application events. Results of monitoring must be submitted with the Annual Reports required per section V.C below. The Annual Report must include all Table E-5 Drinking Water Supply Monitoring Requirements. Specific details on timing, frequency and duration of monitoring are as follows:

Table E-5. Water Supply Monitoring Requirements

Parameter[1]	Units	Sample Type[2]	Minimum Sampling Timing, Frequency and Duration
Endothall Acid	µg/L	Grab	Background Event and Post-Event Monitoring, Every 48-hours for 14-Days Post-Application Events
Endothall Dipotassium Salt	µg/L	Grab	Background Event and Post-Event Monitoring, Every 48-hours for 14-Days Post-Application Events
Triclopyr Acid	µg/L	Grab	Background Event and Post-Event Monitoring, Every 48-hours for 14-Days Post-Application Events
TCP	µg/L	Grab	Background Event and Post-Event Monitoring, Every 48-hours for 14-Days Post-Application Events
3,6-DCP	µg/L	Grab	Background Event and Post-Event Monitoring, Every 48-hours for 14-Days Post-Application Events

Notes:

1. Certified Laboratory testing.
2. Pollutants must be analyzed using the analytical methods described in 40 C.F.R. part 136. Where no methods are specified for a given pollutant, pollutants must be analyzed by a method proposed by the Discharger and approved by the Lahontan Water Board Executive Officer.

D. Hydrologic Conditions

The Discharger must monitor the hydraulic gradient or flow of water between the Tahoe Keys and Lake Tahoe prior to herbicide application and at a weekly frequency during the treatment event.

V. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger must comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. The Discharger must submit Annual Monitoring Reports as specified, below. The reports must contain all data collected for the year and present the data in a tabular format. The report must also present in tabular and graphical formats, all data collected for the entire project (i.e., background event, event, and post-event monitoring). Any additional water quality monitoring samples collected and analyzed beyond requirements in this Order (e.g., parameters monitored that are not required to be monitored or parameters required but monitored longer or more frequently than required) must be reported by the Discharger in the Annual Report submissions specified in section E.V.C below.

3 For each parameter with a receiving water limitation listed in Section V of this Order, the Discharger must determine and report compliance status with respect to the receiving water limitation. Sampling results and receiving water limitations must be provided in a tabular format that allows for easy comparison of sample results and receiving water limitations. All exceedances of receiving water limitations must be identified within the table(s).

4. The Discharger must report to the Lahontan Water Board within 24 hours by phone followed by a written report within 5 days as specified in section E.V.G.1 and 2, any toxic chemical release data that are reported to the State Emergency Response Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986 (42 U.S.C. §11001 et. seq.).

B. Annual Information Collection

The Discharger must collect and retain all information on the previous reporting year beginning January 1 and ending December 31. The Discharger must submit the annual information in an Annual Report per the schedule specified in section E.V.C, below, and when otherwise requested by the Lahontan Water Board Executive Officer. Annual information collection must include the following:

1. An executive summary discussing compliance or violation of this Order and the effectiveness of the BMPs implemented in reducing or preventing non-compliance with this Order associated with aquatic herbicide, Rhodamine WT and lanthanum-modified clay applications.
2. Monitoring data and recommendations for improvements to the APAP including best management practices (BMPs) and the monitoring program based on evaluation of the monitoring results. All receiving water monitoring data must be compared to receiving water limitations and existing receiving water quality.
3. Identification of BMPs currently in use and a discussion of their effectiveness in meeting the requirements in this Order.
4. A discussion of any BMP modifications made to address violations of this Order.

5. Map(s) showing the location and size of each treatment area including locations of all monitoring conducted with unique monitoring station identifiers for each monitoring station, the specific aquatic herbicide applied to each treatment area denoted and treatment areas that received lanthanum-modified clay treatments denoted.
6. Quantity of aquatic herbicides, Rhodamine WT and lanthanum-modified clay applied to each application area during each application event.
7. Information utilized to establish target mixed chemical concentration and the quantity of each chemical discharged in each treatment area in the year of treatment including measurements and calculations of treatment area, volume, and any other information utilized for these calculations.
8. Information on the aquatic herbicide applied to each treatment area and plant survey data collected and include any other treatment (non-chemical or mitigation effort) performed on each area.
9. Information on the lanthanum-modified clay dosage for each treatment area treated with lanthanum-modified clay.
10. Sampling results must indicate the name of the sampling staff performing the sampling and their affiliation, detailed sampling location information (including latitude and longitude or township/range/section if available), detailed map showing each treatment area and associated treatment area and receiving water sampling locations, collection date, name of constituent/parameter and its concentration detected, minimum levels, method utilized, method detection limits for each constituent analysis, unique name or descriptor for each monitoring location sampled, and a comparison of monitoring results to applicable receiving water limits and description of the analytical Quality Assurance/Quality Control Plan measures implemented and results.
11. An application log containing, at a minimum, the following information: Date of application; Location of application; Name of applicator; Type and amount of aquatic herbicide, Rhodamine WT and/or lanthanum-modified clay used; application details, such as level of water body, time application started and stopped, aquatic herbicide application method, rate and concentration; visual monitoring assessment; and Certification that applicator(s) followed the APAP and implemented the minimum BMPs identified in VI.C.3 of this Order.
12. Records of all aquatic pesticide applicator and associated staff safety training including name of each team member trained, date/time of training and summary of training material covered. Training records are to include documentation of aquatic pesticide applicator daily, morning safety briefings in addition to any other one-time or routine training conducted.

C. Annual Report

The Discharger must submit to the Lahontan Water Board Executive Officer an annual report consisting of a summary of the past year's activities, and an assessment of compliance with all requirements of this Order. If there is no herbicide

and rhodamine application during the annual report period, the Discharger must provide the Executive Officer a certification that no discharge to any surface waters occurred during the reporting period. The annual report must contain the monitoring data and other required information specified in section E.V.B, above.

The Discharger must submit the annual report according to the following schedule:

Table E-6. Reporting Schedule

Reporting Frequency	Reporting Period	Annual Report Due
Annual	January 1 through December 31	March 15

D. Electronic Reporting

The Discharger must email all reports to Lahontan@waterboards.ca.gov and include TKPOA [Report Name] in the subject line. At any time during the term of this Order, the Lahontan Water Board Executive Officer may notify the Discharger of the requirement to submit electronically Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS website will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

E. Reporting Protocols

The Discharger must report with each sample result the applicable reported Minimum Level (ML) and the current Minimum Detection Limit, as determined by the procedure in 40 C.F.R. part 136 or alternate approved method.

The Discharger must report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

1. Sample results greater than or equal to the reported ML must be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

2. Sample results less than the Report Limit, but greater than or equal to the laboratory's MDL, must be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample must also be reported.

   For the purposes of data collection, the laboratory must write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (plus a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

3. Sample results less than the laboratory's MDL must be reported as "<" followed by the MDL.
4. The Discharger must instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. Multiple Sample Data: If two or more sample results are available, the Discharger must compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or "Not Detected" (ND). In those cases, the Discharger must compute the median in place of the arithmetic mean in accordance with the following procedure:
    a. The data set must be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
    b. The median value of the data set must be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value must be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
6. The Annual Report must comply with the following requirements:
    a. The Discharger must arrange all reported data in a tabular format. The data must be summarized to clearly illustrate whether the aquatic herbicide applications are conducted in compliance with effluent and receiving water limitations. The Discharger is not required to duplicate the submittal of data that are entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger must submit electronically the data in a tabular format as an attachment.
    b. The Discharger must attach a cover letter to the Annual Report that clearly identifies any violations of the Order; discusses corrective actions taken or planned; and provides a time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
    c. The Annual Report must be submitted to the Lahontan Water Board, signed and certified as required by the Standard Provisions (Attachment D).

F. Compliance Determination

Compliance with the receiving water limitations prescribed in Section V of this Order will be determined by assessment of the results of the event and post-event monitoring conducted in accordance with Attachment E.

The discharger must demonstrate compliance with receiving water limitations at all times outside of the treatment areas. The discharger must demonstrate compliance with receiving water limitations within the treatment area within 21 days after the application event. This demonstration must use sample reporting protocols defined in Attachment E and Attachment A of this Order. For purposes of reporting and enforcement by the Lahontan Water Board, the Discharger shall be determined to be out of compliance with receiving water limitations if residual aquatic herbicide, Rhodamine WT or lanthanum-modified clay discharges cause the pollutant concentrations, as reflected by monitoring sample results, to exceed receiving water limitations established in this Order and greater than or equal to the reporting level (RL).

G. Other Reporting Requirements

1. Twenty-Four Hour Report

   The Discharger must report to the Lahontan Water Board any noncompliance, including any unexpected or unintended effect of a discharge, that may endanger public health or the environment. Any information must be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances and must include the following information:

   a. The caller's name and telephone number;

   b. Applicator name and mailing address;

   c. Waste Discharge Identification (WDID) number;

   d. The name and telephone number of a contact person;

   e. How and when the Discharger become aware of the noncompliance;

   f. Description of the location of the noncompliance;

   g. Description of the noncompliance identified and the U.S. EPA pesticide registration number for each product the Discharger applied in the area of the noncompliance; and

   h. Description of any steps that the Discharger has taken or will take to correct, repair, remedy, cleanup, or otherwise address any adverse effects.

      If the Discharger is unable to notify Lahontan Water Board within 24 hours, the Discharger must do so as soon as possible and also provide the rationale for why the Discharger was unable to provide such notification within 24 hours.

2. Five-Day Written Report

   The Discharger must also provide a written report within five (5) days of the time the Discharger becomes aware of any noncompliance. The written submission must contain the following information:

   a. Date and time the Discharger contacted the Lahontan Water Board notifying of the noncompliance and any instructions received from the Lahontan Water

Board; information required to be provided in this Attachment E V.G.1 (24-Hour Reporting);

b. A description of the noncompliance and its cause, including exact date and time and species affected, estimated number of individual and approximate size of dead or distressed organisms (other than the pests to be eliminated);

c. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc.);

d. Magnitude and scope of the affected area (e.g., aquatic square area or total stream distance affected);

e. Chemical application rate, intended use site (e.g., banks, above, or direct to water), method of application, and name of chemical product, description of product ingredients, and U.S. EPA registration number;

f. Description of the habitat and the circumstances under which the noncompliance activity occurred (including any available ambient water data for aquatic herbicides applied);

g. Laboratory tests performed, if any, and timing of tests. Provide a summary of the test results within five days after they become available;

h. If applicable, explain why the Discharger believes the noncompliance could not have been caused by exposure to the aquatic herbicides from the Coalition's or Discharger's application; and

i. Actions to be taken to prevent recurrence of adverse incidents.

Lahontan Water Board staff may waive the above required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. Such a waiver must be provided in writing.

3. Hazardous Substance Spill Report

In addition to any other reporting requirements, pursuant to CWC section 13271, the Discharger must immediately notify the Governor's Office of Emergency Services (OES) of any hazardous substance discharged into or onto state waters. Pursuant to CWC section 13267, the Discharger must also notify the Lahontan Water Board's Lake Tahoe office of any spills reported to OES within 24 hours by telephone. CWC section 13271(a)(3) states that OES will immediately notify the Lahontan Water Board, local health officer, and administrator of environmental health. Immediately means: (1) as soon as there is knowledge of the discharge, (2) as soon as notification is possible, and (3) when notification can be provided without substantially impeding cleanup or other emergency measures. The reportable quantities for hazardous substances are those developed by the U.S. EPA contained in 40 C.F.R. part 302.

H. Summary of Reports

The following table summarizes all reports the Discharger is required to submit.

Table E-6 Summary of Reports

Report Name	Location of Requirement	Monitoring Period	Due Date
APAP and LMCAP with BMP Implementation Plans	Order section VI.C, and VII.C	N/A	30 -days after adoption of this Order
APAP and LMCAP with Year of Treatment, Treatment Area Locations	Order section VI.C., and VII.C	N/A	30 days prior to discharge
Annual Monitoring Report	MRP section V.C	January 1 through December 31	March 1 of each year
Pre-Biological Monitoring Report	MRP section IV.A	January 1 through December 31	March 1 of the year following pre-biological monitoring
Post-Biological Monitoring Report	MRP section IV.A	January 1 through December 31	March 1of the year following completion of post-biological monitoring
Sediment Monitoring Report	MRP section IV.B	January 1 through December 31	March 1 of the year following completion of post-biological monitoring

Attachment F – Fact Sheet

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Attachment F– Fact Sheet

As described in section II.B of this Order, the Lahontan Regional Water Quality Control Board (Lahontan Water Board) incorporates this Fact Sheet as findings of the Lahontan Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	6A090089000
Discharger	Tahoe Keys Property Owners Association
Name of Facility	Tahoe Keys Lagoons
Facility Address	356 Ala Wai Blvd., City of South Lake Tahoe, CA, 96150
Facility Contact, Title and Phone	Kirk Wooldridge, General Manager, (530) 542-6444
Authorized Person to Sign/Submit	Kirk Wooldridge, General Manager
Mailing Address	356 Ala Wai Blvd.
Billing Address	356 Ala Wai Blvd.
Type of Facility	Multi-Use Development
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	C
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	Not Applicable
Facility Design Flow	Not Applicable
Watershed	South Tahoe and the Tahoe Lake Body Hydrologic Areas

Receiving Water	Tahoe Keys Main Lagoon, Lake Tahoe, Tallac Lagoon and Pope Marsh
Receiving Water Type	Inland surface water

A. Tahoe Keys Property Owners Association (hereinafter Discharger or TKPOA) is a residential association of property owners in South Lake Tahoe, California. The Tahoe Keys Lagoons (hereinafter Facility) are artificial waterways that were created as part of a multi-use residential development. TKPOA is responsible for maintaining the Tahoe Keys Lagoons. TKPOA is responsible for implementing the Tahoe Keys Lagoons Aquatic Weed Control Methods Test (Project), including the discharge of aquatic herbicide residues, Rhodamine WT (dye tracer), and lanthanum-modified clay (phosphorus control).

   For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Discharger will discharge to the Tahoe Keys Lagoons and Lake Tallac, both waters of the United States, within the South Tahoe Hydrologic Area and the Tahoe Lake Body Hydrologic Area (CA Department of Water Resources No. 634.10 and 634.30, respectively). Attachment B provides a map of the area around the Facility. Attachment C provides a detailed map of the Facility.

C. The Discharger filed a Report of Waste Discharge (ROWD) and submitted an application for Waste Discharge Requirements (WDRs) and an NPDES permit on January 17, 2017. Supplemental information was provided on July 21, 2017, July 25, 2018, April 30, 2021, and May 6, 2021. The application was deemed complete on May 6, 2021.

D. Regulations at 40 C.F.R. section 122.46 limits the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. PROJECT DESCRIPTION

The Tahoe Keys residential development is situated on 372 acres of land and inland waterways accessible to Lake Tahoe. Common properties include private beaches, clubhouse, swimming pools, tennis courts, basketball court, navigable waterways, boat docks, pier, and park lands. Public service facilities include administrative offices, water wells and distribution system, corporation yard, and a lagoon water treatment and circulation facility (located at 2100 Texas Avenue in the City of South Lake Tahoe).

The Tahoe Keys Lagoons are comprised of three principal man-made water features: The Main Lagoon, the Lake Tallac Lagoon, and the Marina Lagoon. The Facility location is

shown in Attachment B and C. Information regarding each of the three lagoons is shown on Table F-2. TKPOA harvests aquatic weeds in the Main Lagoon, and the areas of the Marina Lagoon owned by TKPOA, the California Tahoe Conservancy (CTC), Tahoe Keys Marina (TKM), and the Tahoe Keys Beach and Harbor Association (TKB&HA) under the provisions of a settlement agreement.

TKPOA is a non-profit 1,529-member common interest residential subdivision development in the City of South Lake Tahoe (CSLT), El Dorado County, encompassing 1,194 single family residential units and 335 townhouse residential units. The Tahoe Keys property owners are represented by the TKPOA which is also responsible for the common properties. TKPOA operates and maintains the homeowner-owned portions of the Tahoe Keys Lagoons (i.e., the Main Lagoon and portions of the Marina Lagoon), which are located on TKPOA member's private property and its common properties.

The TKPOA area of jurisdiction is unique at Lake Tahoe because the entire area has a dense development of residential uses on land that is a man-modified, former wetland situated within the edge of Lake Tahoe. All properties within the TKPOA area drain to waters that are directly connected to Lake Tahoe.

Table F-2. Lagoon Information

Lagoon	Surface Area (Acres)	Lagoon Property Ownership	Connection to Lake Tahoe
Main Lagoon	110	• ~700 Private Owners • TKPOA Common Area	West Channel
Marina Lagoon	32	• Tahoe Keys Marina • TKPOA Common Area • Tahoe Keys Beach and Harbor Association • California Tahoe Conservancy	East Channel
Lake Tallac Lagoon	30	• 1 Major private owner (Lagoon Partners, Inc.) • ~120 private owners • TKPOA Common Area	Via Pope Marsh

The lagoon water treatment and water circulation facilities were built for water quality improvements following construction of the Facility. The lagoon water treatment facility using chemical coagulation and clarification is not currently in operation. The water circulation facility is operational and Lahontan Water Board requirements for its operation are specified in Order No. R6T-2014-0059 issued to the Discharger.

A. Description of Current Aquatic Weed Treatment and Controls

The Discharger is currently implementing Waste Discharge Requirements (Order No. R6T-2014-0059) adopted by the Lahontan Water Board on July 14, 2014. The Findings in Order No. R6T-2014-0059 state, in part, the following:

> *"Excessive growth of aquatic plants within the [Tahoe Keys] Facility impairs beneficial uses of water, such as Cold Freshwater Habitat, Navigation, Water Contact Recreation, Non-contact Water Recreation and possibly Rare, Threatened, or Endangered Species. The excessive aquatic plant growth has caused several adverse effects to cold water ecosystems: impaired navigation of vessels, potential health and safety risk associated with entanglement of swimmers in aquatic vegetation and lack of visibility of submerged swimmers, impairment of fishing and aesthetic quality, and increased predation of native fish species by invasive fish species."*

Order No. R6T-2014-0059 requires the Discharger to develop and implement a Non-Point Source Water Quality Management Plan (NPS Plan), and an Integrated Management Plan (IMP) to address aquatic weed management. The purpose of the IMP is to optimize aquatic weed management.

The Discharger has developed, implemented, and continues to refine the NPS Plan to address potential land-based sources of nutrients contributing to aquatic weed infestations and harmful algal bloom outbreaks. In addition, the Discharger has developed, implemented, and continues to refine an IMP to address the growth of aquatic weeds utilizing non-chemical methods to control three target aquatic weeds: Eurasian watermilfoil (*Myriophyllum spicatum*), curlyleaf pondweed (*Potamogeton crispus*), and coontail (*Ceratophyllum demersum*). Of these target species, Eurasian watermilfoil and curlyleaf pondweed are invasive species. The Discharger has been implementing seasonal harvesting and other mechanical controls since the mid-1980s with limited effect in terms of controlling the aquatic weed infestations. Recent aquatic plant surveys (2014, 2015, 2016, 2017) show that non-native (i.e., invasive) aquatic weed populations in the Tahoe Keys Lagoons have been growing rapidly with 85 percent to 90 percent of the available wetted surface in the lagoons infested with invasive aquatic weeds. The majority of aquatic weeds observed in these surveys are invasive species.

Currently, only non-herbicide control methods are approved for use under Order No. R6T-2014-0059. Approved and routinely implemented non-herbicide aquatic weed control methods utilized in greater Lake Tahoe consist primarily of mechanical harvesting conducted by TKPOA, small-scale local use of bottom barriers and suction-assisted diver hand pulling. In addition, TKPOA is currently testing laminar flow aeration and ultraviolet light treatment methods on a limited scale in the Main Lagoon. Due to the size, density, and dominance of the infestation in the Tahoe Keys Lagoons, routinely implemented control methods have produced limited results. In addition, the current primary control method, aquatic weed harvesting, produces large quantities of weed fragments. These fragments are capable of propagating new plants and may be

transported by wind, aquatic animals, waterfowl, and boat traffic from the lagoons into other areas of Lake Tahoe.

A bubble curtain at the West Channel entrance from the Main Lagoon to Lake Tahoe has been in place for over one season and was implemented to prevent plant fragments from the Main Lagoon entering Lake Tahoe. Plant fragments are entrained by the bubble curtain and transported to floating bins on the bulkhead sides of the bubble curtain that capture the fragments. Work by the Army Corps of Engineers on the Columbia River indicate bubble curtains retain aquatic herbicides and slow their migration over a bubble curtain boundary in a riverine environment. This measure will minimize target aquatic plant fragments entering Lake Tahoe as a result of treatment activities and minimize the potential for aquatic herbicide residuals to enter Lake Tahoe.

B. Discharge Description

This Order is intended to regulate the Discharger's proposal to conduct an aquatic weed control methods test that includes a one-time treatment event utilizing the aquatic pesticides endothall and triclopyr in multiple test plots (16.9 acres total) in the Tahoe Keys Lagoons (14 acres) and Lake Tallac (2.9 acres) The proposed test of aquatic pesticides and of two non-chemical treatment methods is intended to test effectiveness of initial treatment to provide rapid knock-down (i.e., death) of target aquatic weeds with aquatic pesticides alone or either one of the two non-chemical treatment methods alone or a combination treatment with aquatic pesticide and a non-chemical treatment methods followed by management with non-chemical methods. The test is intended to identify which method(s) can reduce aquatic invasive weed infestations enough to control subsequent aquatic invasive weed growth in years after initial knock-down with non-chemical control methods only to prevent extensive re-infestation of target plants within the lagoons. The discharger also proposes to apply lanthanum-modified clay to sequester phosphorus from the water column if treatment methods cause increases in phosphorus compared to control sites. This measure is intended to mitigate harmful algal blooms in treatment areas if they occur due to nutrient release from the death of the target aquatic weeds following treatment. Discharger also proposes to use Rhodamine WT, a phosphorescent dye, to assess containment measure effectiveness and trace aquatic herbicide residue migration from treatment areas.

1. Aquatic Herbicides

Through onsite mesocosm studies[1], endothall and triclopyr were selected by the Discharger based on their effectiveness at killing select target aquatic weeds, while minimizing impacts to non-target species. The mesocosm studies also demonstrated the effectiveness of the proposed application rates of 2 ppm for endothall and 1 ppm for triclopyr under mesocosm study conditions. These rates are less than one-half the maximum label application rates of 5 ppm for endothall and 2.5 ppm for triclopyr.

[1] TKPOA 20179. 2016 Mesocosm Study: Effect of Four Herbicides on Eurasian watermilfoil (Myriophyllum spicatum), Curlyleaf pondweed (Potamogeton crispus), Coontail (Ceratophyllum demersum) and Elodea (Elodea canadensis). Prepared by Dr. Lars Anderson and Sierra Ecosystem Associates.

Each proposed treatment area (i.e., test site) will receive either an application of endothall or an application of triclopyr at the above-noted application rates based on pre-application surveys during the year of treatment. The pre-application surveys will provide information to identify the best aquatic herbicide to utilize at each test site to maximize control efforts while minimizing non-target effects based on aquatic plant species present. Each herbicide at each test site will be applied in one treatment event, taking several days to complete all aquatic herbicide test applications. The discharger must demonstrate compliance with receiving water limitation at all times outside of the treatment areas. The discharger must demonstrate compliance with receiving water limitations within 21 days after the application event within the treatment areas.

Timing of aquatic herbicide applications is proposed during the spring snow-melt period when Lake Tahoe is filling faster than the Tahoe Keys Lagoons and water flow is from Lake Tahoe into the Tahoe Keys Lagoons. The spring timeframe typically produces stable water inflow into the Tahoe Keys Lagoons helping retain herbicide residues within the lagoon system[2] This time period also corresponds to the early stages of plant growth when treated aquatic weed biomass will be low compared to peak seasonal growth.

Aquatic herbicides will be applied as liquid formulations mixed with Rhodamine WT and discharged from boat-mounted tanks by pumping through drop hoses to discharge from mid-depth to the bottom of the water column in the application areas within each treatment area. Triclopyr will also be applied in a granular formulation with a granular spreader on the water surface to treat shallow areas near the edges of treatment areas. For granular aquatic herbicide applications, Rhodamine WT will be discharged following granular herbicide application to trace herbicide migration. Mixing will occur partially during the application event within the treatment areas; however, it is estimated that three (3) days will be required for the discharge to be fully mixed in each treatment area based on the amount of time for complete vertical mixing to occur observed in prior Rhodamine WT studies conducted in the Main Lagoon[3] [4]..

The aquatic herbicide chemical constituents (active ingredients and residues) include: Endothall acid (CAS# 145-73-3), endothall dipotassium salt (CAS# 2164-07-0), triclopyr acid (CAS# 55335-06-3), TCP (CAS# 6515-38-4) and 3,6-DCP (CAS# 57864-39-8).

Endothall: Endothall acts as a contact herbicide but is also mobile in plant tissues and when applied at lower label rates causes plant death through foliar absorption. A preferred form of endothall is dipotassium salt which in water dissociates to

[2] La Plante, A. 2008. Exchange between the Tahoe Keys Embayments and Lake Tahoe, California-Nevada. MS Thesis - UC Davis.
[3] Anderson 2011. Anderson, L.W.J. Use of Rhodamine wr as Surrogate for Herbicide Transport in the Tahoe Keys. Final Report to the Lahontan Regional Water Quality Control Board, Project No. R6T-2010-0037.
[4] Anderson 2016. Anderson, L.W.J. Rhodamine wr Dye Applications in the Tahoe Keys. Final Report to the Lahontan Regional Water Quality Control Board, Project No. R6T-2016-0028 (2016).

endothall acid and potassium cations**.** The most sensitive endpoint is the U.S. EPA National Primary Drinking Water Regulations established maximum contaminant level (MCL) of 100 ug/L. Acute aquatic life toxic concentration endpoints are at concentrations greater than the MCL and proposed aquatic herbicide treatment concentrations[5].

Triclopyr: Triclopyr causes uncontrolled cell division and growth resulting in vascular tissue destruction, when applied at low concentrations Triclopyr triethylamine salt dissociates in water to triclopyr acid which then degrades to TCP, DCP, 5-CLP, 6-CLP and other minor degradants. The most sensitive endpoint is the criteria for triclopyr dietary exposure from drinking water published in the Federal Register (https://www.federalregister.gov/d/2016-03910/p-42) of 400 ug/L. Acute aquatic life toxic concentration endpoints are at concentrations greater than the drinking water dietary exposure limit and proposed aquatic herbicide treatment concentrations[6].

Aquatic Herbicide Synergism: The Discharger does not propose to use endothall in any treatment area immediately adjacent to, or sharing a boundary with, a triclopyr treated treatment area and vice versa, and so no synergistic effects are expected.

2. Lanthanum-Modified Clay

The discharge of lanthanum-modified clay is proposed in aquatic herbicide treatment areas, post-treatment, to mitigate any increase in harmful algal blooms (HABs) triggered by increasing phosphorus concentrations due to aquatic vegetation die-off within treatment areas.

Lanthanum is a naturally occurring earth element and background concentrations are found in soils throughout the world including the United States[7]. Lanthanum is generally found in soil in a stable form (bound to an anion) and not chemically available for uptake in the soil or release into the water column. Background levels of lanthanum (bound in forms with chlorides, carbonates and phosphates) in water body sediments tested globally (US, Europe and Australia) have typically ranged from 12-36 mg/kg, with occasional extreme exceptional high and lows[8] .

Once lanthanum-modified clay has bound with the phosphate in the water column and any phosphate released from the sediments, it forms the insoluble mineral, rhabdophane. The low solubility product of rhabdophane makes it unlikely under environmental conditions that either the phosphorus or the lanthanum will be released over time.

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[5] *Environmental Fate and Ecological Risk Assessment of Endothall – Revised*, April 22, 2005, USEPA, EPA-HQ-OPP-2009-0081-0143

[6] *Triclopyr (Acid, Choline salt, TEA salt, BEE)**:** Draft Ecological Risk Assessment for Registration Review,* September 30, 2019, USEPA, EPA-HQ-OPP-2014-0576-0026

[7] Shacklette, H.T., Boerngen, J.G.m 1984, Element concentrations in soils and other surficial materails of the conterminous United States. U.S. Department of the Interior, U.S. Geological Survey.

[8] https://www.sepro.com/media/2668/phoslock-technical-bulletin.pdf

The application rate for lanthanum-modified clay is calculated based upon the amount of phosphorus that is to be removed from the water column by binding to the lanthanum in the treatment area. Lanthanum-modified clay is applied as a liquid formulation from boat-mounted tanks or as a granular formulation utilizing a granular spreader and discharged to the surface of the waterbody in each test site. For liquid applications, lanthanum-modified clay granules are mixed into slurry in a tank on the application boat and broadcast evenly across the water's surface at a specific volume per acre. As the slurry or granules settle through the water column, the lanthanum-modified clay binds and inactivates free reactive phosphorous. The bound phosphorus settles to the bottom as a stable insoluble mineral ($LaPO_4$). The unbound lanthanum-modified clay product also settles to the lake bottom helping prevent internal phosphorus loading from the sediment to the waterbody and also binding any free reactive phosphorus that settles to the bottom of the waterbody.

Typical lanthanum-modified clay slurry application rates are less than 150 parts per million (ppm or milligrams per Liter or mg/L), with project-specific dosing based on the amount of phosphorus targeted for inactivation. Once applied, the treated water will exhibit elevated turbidity resulting from the lanthanum-modified clay suspension in the water column. The waterbody will have a cloudy or dull appearance for approximately 4-8 hours, and generally returns to normal water transparency in less than 24 hours.

The Phoslock™ brand of lanthanum-modified clay phosphorus locking technology by SePRO is National Sanitation Foundation (NSF)/American National Standards Institute (ANSI) Standard 60-certified for use in drinking water. This certifies that Phoslock™ applications, at the maximum use rate specified on the SePRO Corporation Phoslock™ label, does not contribute contaminants that could cause adverse human health effects. Phoslock™ is the only lanthanum-modified clay product known to be currently commercially available. The most sensitive toxicological endpoint for Phoslock™ is the lowest observed effect concentration of >1 mg/L for water flea (*Ceriodaphnia dubia*).

3. Rhodamine WT

The discharge of Rhodamine WT is proposed in each aquatic herbicide treatment area at the same time, and in the same manner, as the aquatic herbicide applications, in order to assess containment measure effectiveness and provide an easily measured tracer of aquatic herbicide residue migration.

Rhodamine WT will be applied as a liquid formulation mixed with the aquatic herbicide being discharged in each treatment area and as described above under F.II.B.1. For treatment areas receiving granular triclopyr applications, Rhodamine WT will be applied immediately after the application of the granular form of triclopyr.

Rhodamine WT is NSF/ANSI Standard 60-certified for use in drinking water. The most sensitive endpoint is the drinking water concentration limit near drinking water intakes of 10 ug/L specified in NSF/ANSI Standard 60. Aquatic life toxicity endpoints

are less stringent than the NSF/ANSI Standard 60 recommended limit near drinking water intakes and proposed treatment area target concentration of 10 ug/L [9].

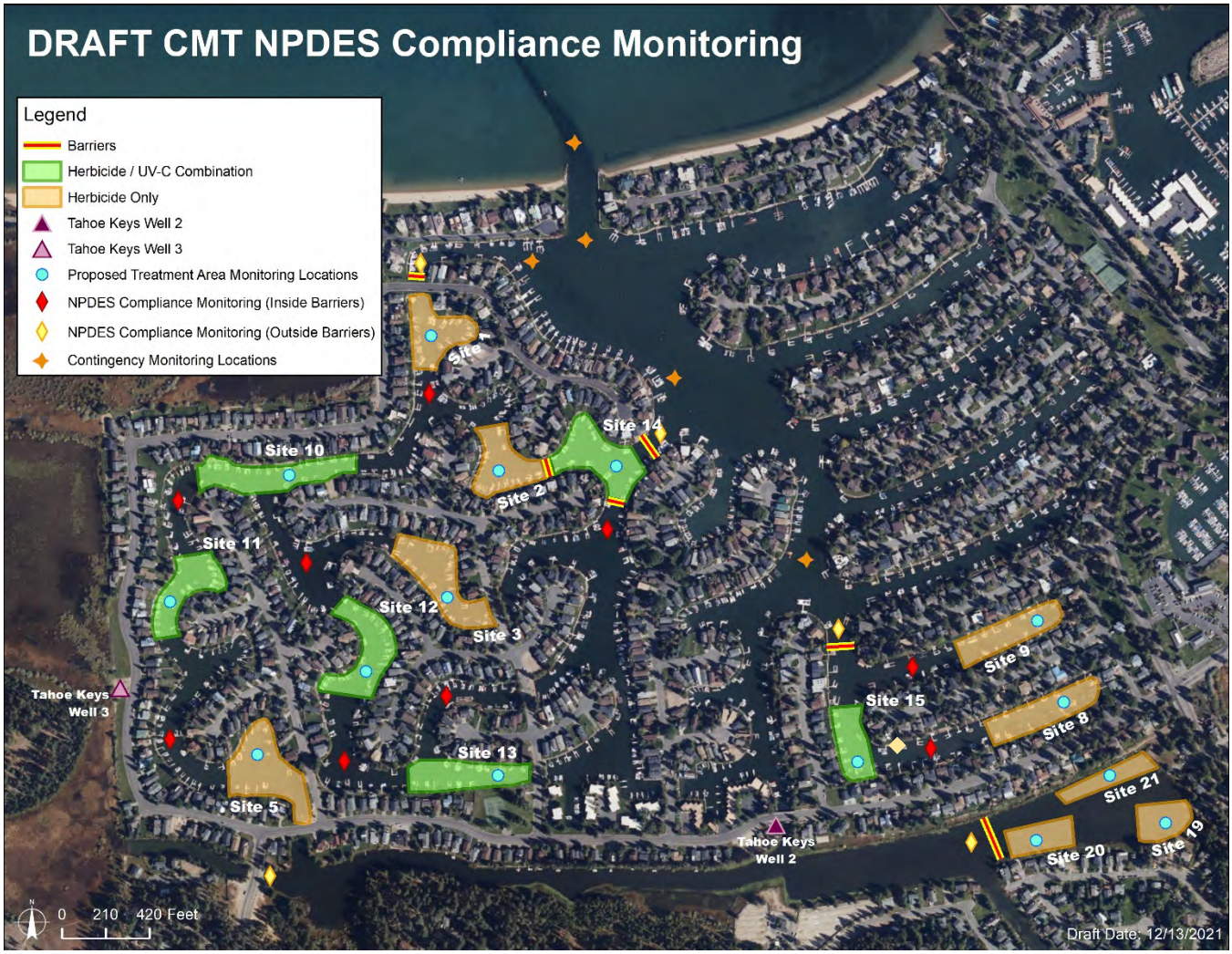
Minimum Best Management Practices (BMPs) required to be implemented to control discharges under this Order are described in F.IV.B below.

C. Discharge Points and Receiving Waters

The Discharger proposes to discharge residual aquatic herbicide, Rhodamine WT to 12 test sites in the Main Lagoon (average 1.2 acre/site) and three test sites in Lake Tallac (average 0.97 acre/site) and, if necessary, lanthanum-modified clay to any of the treatment test sites. Figure F-1 contains a map of proposed treatment site locations and table of treatment site details. Final treatment sites will be selected in the treatment year informed by spring macrophyte surveys and approved by the Lahontan Water Board Executive Officer prior to discharge as specified in this Order.

[9] *Material Safety Data Sheet for Rhodamine WT, November 15, 2013*

Figure F-1. Proposed Treatment Areas



Discharges to the Tahoe Keys Lagoons test sites are limited to the spring snow-melt period when hydraulic gradients are from Lake Tahoe filling the Tahoe Keys Lagoons. As a result, chemical constituents in the discharges will be pushed to the terminal ends of the Main Lagoon. Receiving waters for the discharges to the Tahoe Keys Lagoons test sites are the Tahoe Keys Main Lagoon and Lake Tahoe. Lake Tahoe and the Tahoe Keys Main Lagoon are within the Tahoe Lake Body Hydrologic Area (CA Department of Water Resources No. 634.30).

Receiving waters for discharges to Lake Tallac test sites are Pope Marsh located within the South Tahoe Hydrologic Area (CA Department of Water Resources No. 634.10). The Tahoe Keys Lagoons are discharge zones for groundwater and drinking water supply wells. The groundwater and drinking water wells are not considered to be influenced by surface water; therefore, groundwaters are not expected to be impacted by the discharges. This is based on depth of the wells (150-430 feet), prior Rhodamine

WT dye studies conducted in the Main Lagoon[10] [11] and absence of drinking water supply well bacteria violations on the three supply wells within the development.

Existing water quality, sediment quality, and biological data (fish and benthic macroinvertebrate surveys) for the Tahoe Keys Lagoons and Lake Tallac are provided in:

1. Final Summary of Results: Baseline Water Quality in Tahoe Keys Lagoons (Environmental Science Associates, 2019),
2. 2016 Baseline Water Quality Report for the Tahoe Keys Lagoons - Volume 1 (Sierra Ecosystem Associates, 2017),
3. 2017 Sediment Baseline Report for the Tahoe Keys Lagoons, (Sierra Ecosystem Associates, 2018), and
4. 2019 Fish and Benthic Macroinvertebrate Surveys in Tahoe Keys Lagoons (Sierra Ecosystem Associates, 2020).

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. California Environmental Quality Act

This action to adopt an NPDES permit is exempt from the provisions of chapter 3 of California Environmental Quality Act (CEQA, Public Resources Code sections 21000, et seq.), pursuant to section 13389 of the Water Code.

C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plan.** The Lahontan Water Board adopted a Water Quality Control Plan for the Lahontan Region (hereinafter Basin Plan) on March 31, 1995, as amended from time to time. The Basin Plan designates beneficial uses,

[10] Anderson 2011. Anderson, L.W.J. Use of Rhodamine wr as Surrogate for Herbicide Transport in the Tahoe Keys. Final Report to the Lahontan Regional Water Quality Control Board, Project No. R6T-2010-0037.
[11] Anderson 2016. Anderson, L.W.J. Rhodamine wr Dye Applications in the Tahoe Keys. Final Report to the Lahontan Regional Water Quality Control Board, Project No. R6T-2016-0028 (2016).

establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which establishes state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Beneficial uses applicable to the Tahoe Keys Lagoons, Lake Tahoe and Lake Tallac are as follows:

Table F-3. Surface Water Basin Plan Beneficial Use

Receiving Water Name	Beneficial Use(s)
Tahoe Keys Main Lagoon Lake Tahoe, Lake Tallac Pope Marsh	Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Water-Contact Recreation (REC-1); Non-Water-Contact Recreation (REC-2); Navigation (NAV); Commercial and Sport Fishing (COMM); Cold Freshwater habitat (COLD); Wildlife Habitat (WILD); Preservation of Biological Habitats of Special Significance (BIOL); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction and Development of Fish and Wildlife (SPWN); Preservation of Rare and Endangered Species (RARE), Water Quality Enhancement (WQE); and Flood Peak Attenuation/Flood Water Storage (FLD).

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About 40 criteria in the NTR applied in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
3. **State Implementation Policy (Policy).** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Policy). The Policy became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by U.S. EPA through the NTR and to the priority pollutant objectives established by the Water Boards in the Basin Plans. The Policy became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by U.S. EPA through the CTR. The State Water Board adopted amendments to the Policy on February 24, 2005 that became effective on July 13, 2005. The Policy establishes

implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the Policy.

4. **Alaska Rule.** On March 30, 2000, U.S. EPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (65 Fed. Reg. 24641 [April 27, 2000]). New and revised standards submitted to U.S. EPA after May 30, 2000, must be approved by U.S. EPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to U.S. EPA by May 30, 2000, may be used for CWA purposes, whether or not approved by U.S. EPA.

5. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Lahontan Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. Lake Tahoe is designated as an Outstanding National Resource Water (ONRW). 40 C.F.R. section 131.12(a)(3) specifies that water quality of ONRWs shall be maintained and protected.

6. **Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code §2050 et. seq) or the Federal Endangered Species Act (16 U.S.C.A. §1531 et. seq). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

7. **Consideration of California Water Code Section 106.3.** Water Code section 106.3 establishes a state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, and directs state agencies to consider this policy when adopting regulations pertinent to water uses described in the section, including the use of water for domestic purposes. This Order implements best management practices and requirements to meet established receiving water objectives that will maintain all designated beneficial uses of water. Therefore, the requirement to consider access to safe, clean and affordable water has been met by this Order.

8. **Impaired Water Bodies on CWA 303(d) List.** The Regional Water Quality Control Board, Lahontan Region (Regional Board) and the Nevada Division of

Environmental Protection (NDEP) developed the bi-state Lake Tahoe Total Maximum Daily Load (TMDL) to identify the pollutants responsible for deep water transparency decline, quantify the major pollutant sources, assess the lake's assimilative capacity, and develop a plan to reduce pollutant loads and restore Lake Tahoe's deep water transparency to meet the established standard. The TMDL presents the pollutant load estimates for all of the identified fine sediment particle, total nitrogen, and total phosphorus sources, including groundwater and shoreline erosion inputs.

The fine sediment particle (FSP) load reduction goal addressed in the Lake Tahoe TMDL allocates loads to major sources of FSP with the goal of reducing FSP that remains in the water column for long periods and can be transported from the nearshore environment of Lake Tahoe to deep water areas of the lake. The Lake Tahoe TMDL does not include explicit load reduction requirements for shoreline erosion and groundwater sources of fine sedimental particles because the Regional Board allowed those sources to continue at their baseline conditions.

This Order does not authorize the discharge of nitrogen or phosphorus to the Tahoe Keys Lagoons. This Order does authorize the discharge of lanthanum-modified clay resulting in deposition of clay mineral deposits (i.e., the mineral rhabdophane) on the bed of treated areas within the Main Lagoon. One commercially available form of lanthanum-modified clay currently consists of lanthanum activated bentonite clay (i.e., Phoslock™) with particle size ranges from 0.5-3mm and would not be classified as fine sediment; however, when mixed with water to form a slurry for application, Phoslock™ forms as fine sediment particles that do affect clarity as they settle through the water column for a short duration (i.e., 24-48 hours) following Phoslock™ application.

The potential discharge of lanthanum-modified clay to control harmful algal blooms (HABs) in treatment areas following treatment for public health protection is negligible with respect to the Lake Tahoe TMDL as discussed below.

i. Lanthanum-modified clay will only be discharged to a treatment area if a HAB outbreak occurs in the treatment area following application event. More than one application of lanthanum-modified clay is not expected to be made to any treatment area. While the discharge may increase one TMDL pollutant (i.e., FSP), it will reduce another TMDL pollutant (i.e., phosphorus).

ii. Assuming all treatment areas require one lanthanum-modified clay treatment, based on baseline phosphorus water column concentrations in the Main Lagoon water, the net result would be approximately 420 pounds (lbs) of the lanthanum-modified clay product, Phoslock™, being applied. This treatment would lock-up approximately 4.2 lbs. of phosphorus in the form of the mineral rhabdophane accounting for approximately 0.03% of estimated groundwater phosphorus inputs to Lake Tahoe. Assuming 1 pound of lanthanum-modified

clay equals one pound of fine sediment, approximately 2 x 10^{16} fine sediment particles would be discharged to the Main Lagoon representing 0.02% of existing shoreline erosion FSP load and 0.004% of total FSP load to Lake Tahoe. Even if all treatment areas require one lanthanum-modified clay treatment, the discharge of FSP is negligible with respect to the Lake Tahoe TMDL.

iii. Rhabdophane is chemically stable at environmentally relevant pH levels (i.e., pH = 5-11) and forms as a highly viscous suspension or gel in treated waters that quickly settles to the bed of treated waters as bed load. On the bed of treated waters, a thin (1-2 mm) colloidal hydrated aluminum silicate layer is deposited as the mineral rhabdophane. The lanthanum-modified clay bedload deposits are a chemical barrier, not physical barrier, that will continue to bind phosphorus released from native sediments. In riverine environments rhabdophane may be become mobilized and carried long distances down river due to hydraulic shear forces acting on bed load sediments; however in static water bodies like the Main Lagoon, remobilization and transport into the deeper water portions of Lake Tahoe is unlikely to occur. The dominant flux of bedload between Lake Tahoe and the Main Lagoon is from the lake nearshore toward the lagoons as shoreward wave action dominates the transport dynamics. For example, the West Channel entrance to the Main Lagoon requires dredging at times to maintain boat passage due to sand buildup at this Main Lagoon entrance. As a result of these factors, the potential for transport of FSP resulting from lanthanum-modified clay discharges to the deeper water portions of Lake Tahoe and affect lake transparency is unlikely.

There are sufficient remaining pollutant load allocation to allow the discharge. Furthermore, the existing discharges are subject to compliance schedules designed to bring the receiving water in compliance with WQS. The discharge is not expected to cause further degradation or pollution of Lake Tahoe's deep water transparency.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

Effluent limitations and toxic and pretreatment effluent standards established pursuant to sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the CWA and amendments thereto are applicable to the discharge.

The CWA requires point source dischargers to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: (1) 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and (2) 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and

narrative water quality criteria to protect the beneficial uses of the receiving water where numeric water quality objectives have not been established.

The CWA mandates the implementation of effluent limitations that are as stringent as necessary to meet water quality standards established pursuant to state or federal law (33 U.S.C., §1311(b)(1)(C); 40 C.F.R. §122.44(d)(1)). NPDES permits must incorporate discharge limits necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as to numeric criteria specifying maximum amounts of particular pollutants. Pursuant to 40 C.F.R. section 122.44(d)(1)(i), NPDES permits must contain limits that control all pollutants that "*are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality.*" Section 122.44(d)(1)(vi) of 40 C.F.R. further provides that *"[w]here a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable state water quality standard, the permitting authority must establish effluent limits.*"

With respect to narrative objectives, the Lahontan Water Board must establish effluent limitations using one or more of three specified sources: (1) U.S. EPA's published water quality criteria; (2) a proposed state criterion (i.e., water quality objective) or an explicit state policy interpreting its narrative water quality criteria; or (3) an indicator parameter (i.e., 40 C.F.R. §122.44(d)(1)(vi)(A), (B) or (C)). The Basin Plan contains a narrative objective requiring that: "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.*"

The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, discoloration, toxic substances, radionuclides, or taste and odor producing substances that adversely affect beneficial uses. The Basin Plan states that material and relevant information, including numeric criteria, and recommendations from other agencies and scientific literature will be utilized in evaluating compliance with the narrative toxicity objective. The Basin Plan also limits chemical constituents in concentrations that adversely affect surface water beneficial uses. The Basin Plan further states that, to protect all beneficial uses, the Lahontan Water Board may apply limits more stringent than MCLs.

A. Discharge Prohibitions

1. In accordance with the Region-wide and Unit/Area-Specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan), unless a specific exemption is granted in writing by the Lahontan Water Board, the discharge of pesticides to surface or ground waters is prohibited in the Lahontan Region. On January XX, 2022, the Lahontan Water Board adopted Resolution No. R6T-2022-XXXX granting an exemption for the discharge of two aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac.

This prohibition is based on the Lahontan Water Board's region-wide waste discharge prohibition for discharge of pesticides to water. The Basin Plan specifies exemption criteria in section 4.1 to allow certain uses of aquatic pesticides.

2. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay in a manner different from that described in this Order is prohibited.

   This prohibition is based on 40 C.F.R. 122.21(a), "Duty to Apply," and California Water Code section 13260, which requires filing a Report of Waste Discharge before discharges can occur. Discharges other than those described in the Report of Waste Discharge and authorized by this Order, are prohibited.

3. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay shall not create a nuisance as defined in section 13050 of the California Water Code.

   This prohibition is based on Water Code section 13050 for water quality control for achieving water quality objectives.

4. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must not cause, have a reasonable potential to cause, or contribute to a receiving water excursion above any applicable standard or criterion promulgated by U.S. EPA pursuant to section 303 of the CWA, or water quality objective adopted by the State or Lahontan Water Board.

   This prohibition is based on CWA section 301 and California Water Code.

5. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay to treatment areas not approved by the Lahontan Water Board Executive Officer (Executive Officer) prior to discharge is prohibited.

   This prohibition constrains the discharge to specific treatment areas approved prior to discharge by the Lahontan Water Board Executive Officer. This prohibition provides that treatment areas to be selected in the year of treatment are evaluated and approved by the Lahontan Water Board Executive Officer prior to the discharge.

6. The discharge of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay to each approved treatment area for more than one treatment event, and to greater than 14 acres of water surface area in the Tahoe Keys Main Lagoon and 2.9 acres of water surface area in Lake Tallac are prohibited.

   This prohibition constrains the discharge to the areal extents specified. This prohibition limits the discharge spatially consistent with the pesticide discharge prohibition exemption criteria specified in section 4.1 of the Basin Plan.

7. The discharge of residual aquatic herbicides, and Rhodamine WT to the Tahoe Keys Main Lagoon when the waters in the Main Lagoon are flowing to Lake Tahoe is prohibited.

This prohibition limits the discharge to minimize water quality impacts consistent with the pesticide discharge prohibition exemption criteria specified in section 4.1 of the Basin Plan.

The allowable discharge period in Lake Tahoe (i.e., when water flow is from Lake Tahoe to the lagoons, typically May – June is protective of the receiving water of greater Lake Tahoe. The allowable discharge period typically corresponds to the period when the Tahoe Keys Lagoons are filling from snow-melt runoff within the Lake Tahoe Basin. Hydraulic gradients during the snow-melt runoff time period are typically directed from Lake Tahoe into the Tahoe Keys Lagoons minimizing the potential for aquatic herbicide migration out of the lagoons and into Lake Tahoe. In addition, target aquatic plant biomass typically has not reached seasonal maximum density during this time frame. Water quality impacts resulting from treated, decaying plant biomass (e.g., dissolved oxygen demand, nutrient release to the water column) are minimized by minimizing the treated biomass. Minimizing water quality impacts is consistent with the pesticide discharge prohibition exemption criteria specified in section 4.1 of the Basin Plan.

8. The discharge of endothall products with the endothall N,N-dimethylalkylamine salt formulation of the endothall active ingredient is prohibited.

   This prohibition constrains the discharge to the dipotassium salt of endothall formulation of the active ingredient and prohibits discharge of the N,N-dimethylalkylamine salt formulation which poses a greater toxicological risk (both acute and chronic) than the endothall dipotassium salt formulation. Minimizing water quality impacts is consistent with the pesticide discharge prohibition exemption criteria specified in section 4.1 of the Basin Plan.

9. The discharge of triclopyr products with the triclopyr BEE formulation of the triclopyr active ingredient is prohibited.

   This prohibition constrains the discharge to the triclopyr acid (ACID), triclopyr choline salt (COLN), triclopyr triethylamine salt (TEA) formulations of the active ingredient and prohibits discharge of the triclopyr butoxyethyl ester (BEE) formulation which is classified as highly toxic to aquatic organisms on an acute exposure basis. Minimizing water quality impacts is consistent with the pesticide discharge prohibition exemption criteria specified in section 4.1 of the Basin Plan.

10. The discharge of adjuvants* or surfactants used to increase the effectiveness of aquatic herbicides on target plants is prohibited.

    This prohibition is based on 40 C.F.R. 122.21(a), “Duty to Apply,” and California Water Code section 13260, which requires filing a Report of Waste Discharge before discharges can occur. Discharges other than those described in the Report of Waste Discharge and authorized by this Order, are prohibited.

11. The discharge of Rhodamine WT not associated with an aquatic herbicide application event is prohibited.

This prohibition is based on 40 C.F.R. 122.21(a), "Duty to Apply," and California Water Code section 13260, which requires filing a Report of Waste Discharge before discharges can occur. Discharges other than those described in the Report of Waste Discharge and authorized by this Order, are prohibited.

12. The discharge of lanthanum-modified clay not associated with an aquatic herbicide, UV light or laminar flow aeration treatment event is prohibited.

    This prohibition is based on 40 C.F.R. 122.21(a), "Duty to Apply," and California Water Code section 13260, which requires filing a Report of Waste Discharge before discharges can occur. Discharges other than those described in the Report of Waste Discharge and authorized by this Order, are prohibited.

13. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste that causes further degradation or pollution is prohibited.

    This prohibition is a regionwide waste discharge prohibition specified in section 4.1 of the Basin Plan. This prohibition is consistent with 40 C.F.R. section 131.12(a)(3) which specifies that water quality of ONRWs shall be maintained and protected.

B. Effluent Limitations

1. Technology-Based Effluent Limitations

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements in accordance with 40 C.F.R. section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including biochemical oxygen demand (BOD), TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost

and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorizes the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used (i.e., where no applicable ELGs exist), the Lahontan Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

The intent of technology-based effluent limitations in NPDES permits is to require a minimum level of treatment of pollutants prior to discharge based on available treatment technologies while allowing the Discharger to use any available control technique to meet the limitations. In the case of aquatic herbicide residue, lanthanum-modified clay and Rhodamine WT discharges, U.S. EPA has not developed national effluent limitations guidelines and standards other than the requirement to follow the labels when applying pesticides. Aquatic herbicides and lanthanum-modified clay are designed for direct application to water bodies to remedy a known water quality concern, in this case, aquatic invasive weed infestations and elevated phosphorus concentrations in the water body. Rhodamine WT is designed for direct application to the water body to trace environmental transport of aquatic herbicide residues as a monitoring measure intended to trigger additional BMPs to protect beneficial uses. As a result, it is not appropriate to establish technology-based effluent limitations for these discharges. Therefore, the effluent limitations contained in this Order are narrative and include requirements to develop and implement best management practices to comply with numeric receiving water limitations.

The BMPs required herein constitute BAT and BCT and will be implemented to minimize the area and duration of impacts caused by the discharge of residual aquatic herbicides, lanthanum-modified clay and Rhodamine WT in the treatment area and to allow for restoration of water quality and protection of beneficial uses of the receiving waters to pre-application quality following completion of a treatment event. In addition, the Discharger must provide certification by a qualified biologist that the receiving water beneficial uses have been restored to pre-project conditions.

The development of BMPs provides the flexibility necessary to establish controls to minimize the areal extent and duration of impacts caused by the discharge of residual aquatic herbicides, lanthanum-modified clay and Rhodamine WT. This

flexibility allows the Discharger to implement appropriate BMPs for different types of applications and treatment area conditions.

For aquatic herbicides, much of the BMP development has been incorporated into the aquatic herbicide regulation process by U.S. EPA and DPR. The Discharger must utilize a DPR licensed, with a Category F certificate for aquatic herbicide application, aquatic herbicide applicator when conducting treatment events per the requirements of this Order. The aquatic herbicide use must be consistent with the aquatic herbicide label instructions.

U.S. EPA and DPR scientists review aquatic herbicide labels to ensure that a product used according to label instructions will cause no harm (or “adverse impact”) on non-target organisms that cannot be reduced (or “mitigated”) with protective measures or use restrictions. Many of the label directions constitute BMPs to protect water quality and beneficial uses. Label directions may include: precautionary statements regarding toxicity and environmental hazards; directions for proper handling, dosage, application, and disposal practices; prohibited activities; spill prevention and response measures; and restrictions on type of water body and flow conditions. Additional BMPs required in this Order provide additional protections to protect receiving waters not typically employed for aquatic weed control projects including measures to mitigate aquatic herbicide migration to receiving waters, measures to respond to harmful algal bloom outbreaks within treated areas following treatment events, and measures to ensure compliance with the Basin Plan dissolved oxygen water quality objective in treatment areas following the treatment event and in receiving waters at all times.

For Rhodamine WT discharges, the BMPs required in this Order will be implemented to minimize the area and duration of impacts caused by the discharge of Rhodamine WT in the treatment area and to allow for restoration of water quality and protection of beneficial uses of the receiving waters to pre-application quality following completion of a treatment event.

For lanthanum-modified clay discharges, the BMPs required in this Order will be implemented to minimize the area and duration of impacts caused by the discharge of lanthanum-modified clay in the treatment area and to allow for restoration of water quality and protection of beneficial uses of the receiving waters to pre-application quality following completion of a treatment event.

The APAP and LMCAP describe the time period for application. This information is needed to ensure that the application of aquatic herbicides, Rhodamine WT or lanthanum-modified clay does not occur in times of heavy recreational use as a precaution to limit public exposure or during storm events causing excessive volume fluctuations in the receiving waterbody that would require altering product application rates.

The APAP and LMCAP describe the application rates for each aquatic herbicide, Rhodamine WT and lanthanum-modified clay product discharged. The information in the APAP is needed to ensure that the aquatic herbicide and rhodamine dye

application rates do not exceed product label requirements or the proposed target treatment concentrations for the herbicides or rhodamine dye. The LMCAP information is needed to ensure that only enough lanthanum-modified clay is used to bind the free phosphorus in the waterbody and applications do not result in lanthanum in receiving waters above background concentrations.

The APAP and LMCAP describe BMPs necessary to prevent residual aquatic herbicide, lanthanum-modified clay and Rhodamine WT discharges to receiving waters outside of treatment areas. The application should be timed during periods when conditions minimize potential for residual aquatic herbicide to migrate outside of treatment areas, such as avoiding precipitation events. One control method to prevent the discharges from migrating to receiving waters will be the use of barrier curtains. This Order does not replace or excuse any applicable CWA §404 and §401 requirements associated with barrier curtain placement.

The Discharger must monitor treatment areas and receiving waters in compliance with Attachment E. This monitoring gives the Discharger the information that is needed on the effectiveness of the application and the overall effectiveness of the BMPs. Using this information, the Discharger can adapt and modify their practices as warranted to protect water quality and beneficial uses.

The APAP and LMCAP describe “good-housekeeping” measures to prevent spills, leaks, and unintended discharges. Spills, leaks, and unintended discharges result in an unintended application of aquatic herbicides, lanthanum-modified clay and Rhodamine WT to the waterbody which would constitute a violation of this Order. Spill and leaks of aquatic herbicide, lanthanum-modified clay and Rhodamine WT products in staging areas could result in unintended discharges during precipitation events.

The APAP and LMCAP describe personnel training for the proper application of aquatic herbicides, lanthanum-modified clay and Rhodamine WT. Training is especially important for site personnel responsible for the application of these products because they are the ones implementing the BMPs to protect water quality. Successful implementation of BMPs is dependent on effective training of site personnel. Without successful implementation, water quality would not be adequately protected.

The Discharger submitted an APAP on April 30, 2021. The APAP addresses many of the requirements noted above; however, the LMCAP and implementation plans for all BMPs required by this Order were not included in the April 30, 2021 submittal. Amendments to the APAP will be required to be submitted prior to the discharge and incorporate year of treatment aquatic plant surveys to: 1) select final treatment areas that have the least coverage of non-target aquatic plants and highest coverage of target aquatic plants and 2) to select which aquatic herbicide will be used in each treatment area based on target aquatic plants present in each treatment area in order to minimize impacts to non-target plant species. The APAP amendments addressing requirements of this Order are required to be submitted for Lahontan

Water Board Executive Officer approval within the time frames noted in section VI.D of this Order. The LMCAP addressing requirements of this Order is required to be submitted for Lahontan Water Board Executive Officer approval within the time frames noted in section VII.C of this Order. The minimum required BMPs in this Order are summarized in sections VI.C and VII.B.

2. Water Quality-Based Effluent Limitations (WQBELs)

a. **Scope and Authority**

Section 122.44(d)(1)(i) of 40 C.F.R. mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) U.S. EPA criteria under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 C.F.R. section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

Section 122.44(k)(3) of 40 C.F.R. allows the use of other requirements such as BMPs in lieu of numeric effluent limits if the latter are infeasible. It is infeasible for the Lahontan Water Board to establish numeric effluent limitations in this Order because:

i. The application of aquatic herbicides is not necessarily considered a discharge of pollutants according to the *National Cotton Council of America v. U.S. EPA*[12] and other applicable case law. The Sixth Circuit Court of Appeals ruled that the residues of the pesticides associated with the application of pesticides at, over, or near water constitute pollutants within the meaning of the CWA and that the discharge must be regulated under an NPDES permit.

ii. This Order regulates the discharge of residual aquatic herbicides used for aquatic weed control to waters of the United States, lanthanum-modified clay used for control of phosphorus concentrations in waters of the United States, and Rhodamine WT for tracing transport of aquatic herbicide residues to guide BMP implementation to protect receiving water quality and beneficial uses. Herbicide products with DPR registration labels,

[12] 553 F.3d 927 (6th Cir., 2009)

lanthanum-modified clay, and Rhodamine WT products explicitly allow direct application to water bodies. In aquatic herbicide applications to control invasive aquatic weeds, the aquatic herbicide residue or degradation byproduct that is deposited in waters of the United States is a pollutant.

iii. The point at which an aquatic herbicide becomes a residue is not precisely known and varies depending on the type of aquatic herbicides, application method and quantity, water chemistry, etc. Therefore, in the application of aquatic herbicides, the exact effluent is unknown.

iv. For the application of lanthanum-modified clay, no known water quality criterion has been promulgated for lanthanum or its byproducts.

v. Aquatic herbicides, lanthanum-modified clay and Rhodamine WT are designed for direct application to water. It would be impractical to provide effective treatment of the aquatic herbicides, lanthanum-modified clay and Rhodamine WT prior to discharge to protect water quality given treatment may render these products useless for their intended purposes.

Therefore, as stated in Technology-Based Effluent Limitations, Section V.B.1 above, the effluent limitations contained in this Order are narrative and require development and implementation of BMPs to comply with receiving water limitations.

b. **Receiving Water Beneficial Uses**

Aquatic herbicide, lanthanum-modified clay and Rhodamine WT applications for the aquatic weed control methods test project may potentially deposit residual aquatic herbicides, lanthanum residuals and Rhodamine WT residuals to receiving waters. Beneficial uses of receiving waters for discharges covered under this Order are specified in Table F-3. Requirements of this Order implement the Lahontan Basin Plan.

c. **Determining the Need for WQBELs**

Water quality standards include Basin Plan beneficial uses and narrative and numeric water quality objectives, State Water Board adopted standards, and federal standards, including the CTR and NTR, as well as antidegradation policies. The Basin Plan includes numeric site-specific water quality objectives and narrative objectives for toxicity, chemical constituents, and tastes and odors. The narrative toxicity objective states: "*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.*" With regard to the narrative water quality objectives for chemical constituents, the Basin Plan states that waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. At minimum, waters *"designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) or secondary maximum contaminant level (SMCL)*" in

title 22 of the California Code of Regulations. The narrative tastes and odors objective states: "*Waters shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses.*"

Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. As stated in Technology-Based Effluent Limitations, Section V.B.1, above, the effluent limitations contained in this Order are narrative and include requirements to develop and implement BMPs to comply with receiving water limitations.

d. **Antidegradation Policy**

State and federal antidegradation policies require that existing water quality be maintained unless degradation is justified based on specific findings. State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality in California*, sets forth California's antidegradation policy. Consistent with 40 C.F.R section 131.12, Resolution No. 68-16 incorporates the federal antidegradation policy. In 1980, pursuant to federal antidegradation regulations (40 Code of Federal Regulations § 131.12), the State Water Board designated Lake Tahoe as an Outstanding National Resource Water (ONRW). Pursuant to 40 C.F.R. section 131.12(a)(3), where high quality waters constitute an Outstanding National Resource, that water quality shall be maintained and protected. The Basin Plan implements, and incorporates by reference, the state and federal antidegradation policies. Permitted discharges must be consistent with these policies.

State antidegradation policy in State Water Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality of Waters in California", specifies in substantial part that: "Whenever the existing quality of water is better than the quality established in policies… such existing high quality will be maintained until it has been demonstrated to the state that any change will be consistent with maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies. "Any activity…which proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the state will be maintained." The Administrative Procedures Update titled *Antidegradation Policy Implementation for NPDES Permitting* (APU 90-004, July 2, 1990) provides guidance for Regional Boards implementing State Water Board Resolution No. 68-16 and the

Federal Antidegradation Policy, as set forth in 40 CFR 131.12 as applied to the NPDES permitting process.

Federal antidegradation policy specifies for ONRWs (i.e., Tier 3 Waters): “Where high quality waters constitute an Outstanding National Resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.” Federal guidance on implementing federal antidegradation policy is contained in the U.S. EPA Water Quality Standards Handbook (EPA-823-B-12-002, 2012). U.S EPA in Section 4.7 of the USEPA Water Quality Standards Handbook notes that the state can allow activities that result in temporary and short-term changes in the water quality of an ONRW (i.e., Tier III water) provided those changes do not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW. The term “temporary and short-term” is undefined and is dependent on the activity involved. However, the USEPA Water Quality Standards Handbook notes that in rather broad terms, “EPA’s view of temporary is weeks and months, not years. The intent of EPA's provision clearly is to limit water quality degradation to the shortest possible time.”

As indicated in the antidegradation analysis in Attachment G, the permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

CWA section 303(a-c), requires states to adopt water quality standards, including criteria necessary to protect beneficial uses. *The Porter-Cologne Water Quality Control Act defines “water quality objectives” as the allowable “limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.”* The Basin Plan includes numeric and narrative water quality objectives that are protective of multiple beneficial uses identified in the Basin Plan for Lake Tahoe and Lake Tallac.

The discharge of residual aquatic herbicides, lanthanum-modified clay and Rhodamine WT must meet applicable water quality criteria and objectives. The receiving water limitations ensure that an application event does not result in an exceedance of a water quality standard in the receiving water.

To protect all designated beneficial uses of the receiving water, the most stringent (lowest) and appropriate (to implement the CTR criteria and WQOs in the Basin Plans) criteria should be selected as the permit limitation for a particular water body and constituent. In many cases, water quality standards include narrative, rather than numerical, water quality objectives. In such cases, numeric water quality limits

from the literature or publicly available information may be used or developed from such information to ascertain compliance with water quality criteria.

Basin Plan water quality objectives include objectives for chemical constituents, toxicity, and tastes and odors. The toxicity objective requires that surface water be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective requires that surface water and groundwater not contain chemical constituents in concentrations that adversely affect any beneficial use or that exceed the MCLs set forth in title 22, California Code of Regulations. The tastes and odors objective states that surface water and groundwater shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

This Order contains receiving water limitations based on the Basin Plan's numerical and narrative water quality objectives for bio-stimulatory substances, chemical constituents, color, temperature, floating material, settleable substances, suspended material, tastes and odors, and toxicity. This Order also requires compliance with any amendment or revision to the water quality objectives contained in the Basin Plan adopted by the State Water Board or Lahontan Water Board subsequent to adoption of this Order. The discharger must initiate receiving water compliance monitoring a minimum of seven (7) days following the application event consistent with the requirements of section 4.1 of the Basin Plan. The discharger must demonstrate compliance with receiving water limitations within 21 days after the application event. The 21-day time period to achieve compliance represents the treatment duration and is established based on endothall and triclopyr half-lives and the number of days following an application event endothall and triclopyr are at concentrations in treatment areas that are lethal to target aquatic weeds. Compliance with the receiving water limitations will be determined by assessment of the results of the monitoring conducted in accordance with Attachment E.

1. **Receiving Water Limitations**

   The instantaneous maximum receiving water limitations are based on water quality objectives adopted by the Lahontan Water Board. This Order provides receiving water limitations based on the most stringent water quality criteria/objectives to protect all designated beneficial uses of the receiving water. The rationale for each chemical specific limitation is summarized below.

   Endothall: The 100 µg/L endothall receiving water limit is based on the established maximum contaminant level (MCL) for endothall specified in title 22, California Code of Regulations, division 15, chapter 15, article 5.5, § 64444(a), maximum contaminant levels for volatile organic chemicals. Endothall will begin to degrade from the time of initial application and dilution will occur as endothall residuals migrate away from the treatment areas. Field dissipation studies indicate median disappearance time for endothall acid in lakes and reservoirs of

seven days[13]. The proposed test sites are bounded by untreated receiving waters that do not receive a discharge. The volume of receiving water in the Main Lagoon that is available for dilution is approximately four-fold (approximately 140 acre-feet treated water versus approximately 600 acre-feet of untreated receiving waters). The nearest community public drinking water intakes in Lake Tahoe are near Lakeside Marina approximately four miles to the east of the West Channel entrance to Lake Tahoe from the Main Lagoon. The nearest private drinking water sources are reported to be located in the Jameson Beach community north of Pope Marsh approximately one mile west of the West Channel entrance[14]. The estimated concentration of endothall at the nearest drinking water intake is less than 0.9 µg/L. As a result of degradation and dilution of endothall, endothall concentrations would be below the receiving water limit if endothall migrates outside of the Main Lagoon to potable water intakes which ensures the MUN water quality objective is protected.

Triclopyr: The chemical specific receiving water limitation for triclopyr was derived from the narrative toxicity objective. The 400 µg/l triclopyr receiving water limit is based on triclopyr pesticide tolerances, specifically triclopyr dietary exposure from drinking water published in the Federal Register (https://www.federalregister.gov/d/2016-03910/p-42).[15] U.S. EPA determined that for acute and chronic dietary risk assessments, a receiving water concentration value of 400 µg/l at potable water intakes near triclopyr application areas is protective for dietary exposure. Triclopyr will begin to degrade from the time of initial application and dilution will occur if triclopyr residuals migrate away from treatment areas. Field dissipation studies conducted in static and non-static lakes indicates dissipation half-life of triclopyr acid ranges from 0.5-5 days in non-static lakes and 7-9 days in static lakes[16].The dilution available within the Main Lagoon receiving waters and the proximity of the discharge to drinking water intakes noted above for endothall also apply to triclopyr. The estimated concentration of triclopyr at the nearest drinking water intake is less than 0.9 µg/L. As a result of degradation and dilution of triclopyr, triclopyr concentrations would be below the receiving water limit if triclopyr migrates outside of the Main Lagoon to potable water intakes which ensures the MUN water quality objective is protected.

Rhodamine WT: The chemical specific receiving water limitation for Rhodamine WT is derived from the narrative toxicity objective. The 10 ug/l receiving water limit for Rhodamine WT is based on National Sanitation Foundation (NSF) Standard 60[17]. The NSF Standard 60 is an industry standard and certification or

[13] *Environmental Fate and Ecological Risk Assessment of Endothall – Revised*, April 22, 2005, USEPA, EPA-HQ-OPP-2009-0081-0143
[14] Draft EIR/EIS for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test, July 6, 2020.
[15] Triclopyr; Pesticide Tolerances, Federal Register, Vol. 81, No. 37, p. 9353, February 25, 2016
[16] *Triclopyr (Acid, Choline salt, TEA salt, BEE): Draft Ecological Risk Assessment for Registration Review,* September 30, 2019, USEPA, EPA-HQ-OPP-2014-0576-0026

[17] NSF/ANSI Standard 60: Drinking Water Treatment Chemicals – Health Effects

compliance with it is required for nearly all water treatment chemical manufacturers selling chemicals utilized in drinking water systems in the U.S. The National Sanitation Foundation (NSF) Standard 60 establishes a concentration limit of 10 ug/l for Rhodamine WT near potable water intakes. The NSF Standard 60 also establishes a concentration limit of 0.1 ug/l in drinking water. The half-life of Rhodamine WT (Rhodamine WT) is temperature dependent and ranges from 15.3 to 21.9 days based on studies under natural sunlight at 30 degrees north latitude[18] The Rhodamine WT receiving water limitation in this Order is based on the 10 ug/l near drinking water system intake limit and provides for dilution and degradation as described above for endothall and triclopyr to ensure concentrations of Rhodamine WT would be below the receiving water limit if Rhodamine WT migrates outside of the Main Lagoon to potable water intakes which ensures the MUN water quality objective is protected.[19]

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Lahontan Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

Water Code section 13267 specifies that the burden, including costs, of technical or monitoring program reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. The Lahontan Water Board finds that the costs associated with the monitoring and reporting requirements in this Order are necessary to characterize receiving water quality, determine compliance with applicable effluent limitations (i.e., BMP implementation) and receiving water limitations and protect beneficial uses.

A. MRP Goals

The goals of the MRP are to:

1. Identify and characterize aquatic herbicide, lanthanum-modified clay and Rhodamine WT application projects conducted by the Discharger;
2. Determine compliance with the receiving water limitations and other requirements specified in this Order;
3. Evaluate the effectiveness of BMPs;

[18] PubChem (Chemical Id# 37718), https://pubchem.ncbi.nlm.nih.gov/compound/Rhodamine-WT
[19] Announcement of the Drinking Water Contaminant Candidate List, Federal Register V63, No. 40, Part III, Page 10274, 10283, March 2, 1998.

4. Assess the chemical, physical, and biological impacts on receiving waters resulting from aquatic herbicide, lanthanum-modified clay and Rhodamine WT applications;
5. Assess the overall health and evaluate trends in receiving water quality after the permitted discharges;
6. Demonstrate that water quality of the receiving waters following completion of the aquatic herbicide, lanthanum-modified clay and Rhodamine WT applications is restored to pre-application conditions; and
7. Ensure that monitoring is representative of all aquatic herbicide, lanthanum-modified clay and Rhodamine WT applications conducted by the Discharger.

   The MRP in the Attachment E of this Order is considered as baseline monitoring requirements. The monitoring by Discharger must meet applicable requirements of this Order. Any additional water quality monitoring conducted beyond that required by this Order must be submitted in the Annual Reports required per Attachment E.

B. Effluent Monitoring

Pursuant to the requirements of 40 C.F.R. section 122.44(i), effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and assess the impacts of the discharge on the receiving water and groundwater.

The application of pesticides for pest control is not necessarily considered a discharge of pollutants according to the *National Cotton Council of America v. U.S. EPA* decision and other applicable case law. The regulated discharge is the discharge of residual pesticides (i.e. residual aquatic herbicides). At what point the pesticide becomes a residue is not precisely known. Therefore, in the application of pesticides, the exact effluent is not known. Thus, the effluent monitoring requirement is not applicable for aquatic herbicide applications.

In addition, aquatic herbicides, lanthanum-modified clay and Rhodamine WT are designed for direct application to water. It would be impractical to provide effective treatment of the aquatic herbicides, lanthanum-modified clay and rhodamine dye prior to discharge to protect water quality given treatment may render these products useless for their intended purposes.

C. Receiving Water Monitoring

Receiving water monitoring is necessary to determine the impacts of the discharge on the receiving waters, and to evaluate compliance with receiving water limitations that are intended to protect beneficial uses. This Order requires receiving water monitoring in receiving waters adjacent to treatment areas and within treatment areas after the treatment event.

To ensure that beneficial uses of waters of the state are protected, the Basin Plan lists numeric objectives that are applicable to: all surface waters and specific applicable receiving surface waters. Waterbody-specific objectives also apply to waters that are tributary to the waterbody specified for the numeric objective. This is called the "tributary rule." Numeric objectives that apply to the Tahoe Keys Lagoons include numeric objectives that are applicable to Lake Tahoe. These receiving water limitations serve to protect the beneficial uses designated for the receiving waters that will be impacted by the discharge. This Order includes receiving water monitoring requirements for temperature, pH, turbidity, dissolved oxygen, and chemicals/chemical residues (Endothall acid, endothall dipotassium salt, triclopyr acid, TCP, 3,6-DCP, Rhodamine WT, phosphorus and lanthanum and total suspended solids).

D. Other Monitoring Requirements

1. Best Management Practices (BMP) Plan Reporting

This Order requires monitoring and reporting of BMP effectiveness, implementation details and certification by applicators that the BMP Plans to meet the requirements of this Order are being implemented.

2. Biological Monitoring

This Order requires pre- and post-treatment macroinvertebrate and aquatic vegetation monitoring with post-treatment monitoring conducted no later than two years after the application event to characterize the impacts of applications on aquatic life uses in the receiving waters.

3. Sediment Monitoring

This Order requires pre- and post-treatment sediment monitoring with post-treatment monitoring conducted and reported no later than two years after the application event to characterize the impacts of aquatic herbicide discharges on sediment quality in the receiving waters.

3. Visual Observations

The Order requires visual monitoring at all treatment sites to determine, in conjunction with physical and chemical monitoring, compliance with receiving water limitations V.A.2.g, V.A.2.I, and V.A.2.q.

VII. RATIONALE FOR AQUATIC PESTICIDE, LANTHANUM-MODIFIED CLAY AND RHODAMINE AQUATIC DYE USE REQUIREMENTS

A. Application Schedule

The Discharger must provide the contact phone number or other specific contact information or online resource containing schedule information to all persons who request the Discharger's application schedule

B. Application Notification Requirements

Section 4.1 of the Basin Plan, pesticide discharge prohibition exemption criteria, and this Order require the Discharger to notify potentially affected parties who may use the potentially affected water for any beneficial use. The notification must include any associated water use restrictions or precautions. In addition, the Discharger must also: 1) provide via certified mail, or equivalent, notice of the proposed pesticide applications to water purveyors whose source water relies on the surface water and/or groundwater wells designated under the direct influence of the surface water; 2) provide to the Lahontan Water Board comments written from, and written responses to, the water purveyors notified pursuant to the notification; and 3) provide water purveyors and the Lahontan Water Board an estimate of the maximum foreseeable concentrations of pesticide components in the nearest surface water intake used for drinking water supplies located within the receiving waters.

C. APAP and LMCAP

This Order contains narrative effluent limitations implemented with the minimum BMPs described in the sections VI.C and VI.B of this Order. See Section VI, Rationale for Effluent Limitations and Discharge Specifications for a more detailed explanation of how effluent limits are implemented with BMPs for discharges of this nature.

D. APAP and LMCAP Processing, Approval, and Modifications

The Discharger must submit two APAP amendments. The first APAP amendment addressing items VI.C.1-3 must be submitted within 45 days after the adoption date of this Order. The Second APAP amendment addressing items VI.C.4-6 must be submitted 30 days before the expected day of first application of aquatic herbicides and Rhodamine WT.

The first APAP amendment must be submitted within 45 after the adoptions of this Order and include the following information Best Management Practices (BMPs): 1) BMPs to prevent pesticide migration to Lake Tahoe, 2) BMPs to prevent spills while handling the herbicide, including a hazardous material response team that will be under agreement to respond to possible spill (provide the name of the contracted company 30 days prior), 3) require that application staff be trained on the pesticide to be used at least 30 days prior to application, 4) BMPs to prevent a harmful algal bloom and mitigation measures, and 5) BMPs to prevent low dissolved oxygen content in the water and mitigation measure to be taken.

The second APAP amendment is required 30 days prior to expected application and must provide the following information: 1) the final map of the proposed treatment areas and 2) proposed dates of treatment for each treatment site.

Upon receipt of each of the two amendments to the APAP, Lahontan Water Board staff will review the plan for completeness. If Lahontan Water Board staff determines the amendments to the APAP are acceptable, staff will recommend to the Executive Officer approval of the amendments to the APAP. If either of the amendments to the APAP are determined to be incomplete, the Discharger must address Lahontan Water

Board staff comments and resubmit the amendment. The amendment must be approved by the Executive Officer prior to any aquatic herbicide and Rhodamine WT applications.

E. Application Logs

Application logs to record all aquatic herbicide, lanthanum-modified clay and Rhodamine WT applications is necessary. These application logs will help Dischargers and the Lahontan Water Board staff to investigate any exceedance of receiving water limitations.

VIII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Standard Provisions in Attachment D

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment B. The Discharger must comply with applicable standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) of 40 C.F.R. allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. Section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. section 122.41(j)(5) and (k)(2) because the enforcement authority under the California Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference California Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This Order may be reopened for modification and reissuance in accordance with the provisions contained in 40 C.F.R. §122.62, and for the following reasons:

a. Violation of any terms or conditions of this Order;

b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the discharge subject to waste discharge requirements;

d. Promulgation of new or amended regulations by the State Water Board, Lahontan Water Board or U.S. EPA, including revisions to the Basin Plan;

e. Receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with the provisions of 40 CFR 122, 123, 124, and 125;

f. If U.S. EPA develops biological opinions regarding pesticides included in this Order, this Order may be re-opened to add or modify Receiving Water Limitations for residual pesticides of concern, if necessary.

The filing of a request by the Discharger for modification, revocation and reissuance or termination of this Order or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order from the Lahontan Water Board.

2. Special Studies, Technical Reports, and Additional Monitoring Requirements

a. Additional Investigation

This Order requires Dischargers to conduct additional investigations if the monitoring results exceed the receiving water monitoring limitations. These investigations are necessary in order to address the exceedance caused by the aquatic herbicide, lanthanum-modified clay or Rhodamine WT application and meet the Order's limitations and requirements including the Basin Plan's narrative water quality objective of no toxics in toxic amount.

b. Qualified Biologist Certification Following Project Completion

Section 4.1 of the Basin Plan, pesticide discharge prohibition exemption criteria, and this Order require the Discharger to assess the restoration of non-target aquatic life and benthic communities within the treated waters within two years post-discharge, and if, based on the monitoring data, the evidence demonstrates, certify in writing that all affected non-target biological communities have been fully restored to pre-project conditions. The certification is required to be accompanied by a report detailing the pre-project and post-project monitoring, including detailed explanation of the assessment methods used and the rationale for the certification.

3. Corrective Action

If receiving water limitations are exceeded, the Discharger must assess the cause of exceedance and take appropriate actions if necessary to prevent occurrence or to abate the problem.

Low dissolved oxygen in the water could occur from the decay of large amounts of biomass. If the Project is conducted early in the growing season, as proposed, it will kill plants with the minimal amount of biomass, minimizing the potential of depressed dissolved oxygen in the water. The Discharger will be monitoring the dissolved oxygen content in all treatment area and controls site. If the dissolved oxygen falls to below 5mg/L (for a mean of seven days) and below the control site's dissolved oxygen, then the Discharger must abate the condition. The Discharger has proposed mechanical aeration as one method to be implemented to increase the dissolved oxygen in the water.

HAB are presently being detected at warning and cautions levels in the Tahoe Key Lagoons for 2019 and 2020. Decaying biomass could increase nutrients in the water column and stimulate either a HAB outbreak, earlier outbreak or increase the intensity of the bloom. For inland waters one of the limiting factors is the availability of phosphorus in the water column. The Discharger has proposed the use of lanthanum modified clay, if phosphorus levels are elevated in the treatment sites over levels of the control sites and the HAB visual and testing indicate presence above warning levels.

IX. COMPLIANCE DETERMINATION

This Order specifies that compliance be based on event and post-event sampling results. The minimum effective concentration and time needed to effectively kill or control target aquatic weeds varies due to site-specific conditions, such as target species, water chemistry, and type of aquatic herbicides used. This Order requires the discharger to demonstrate compliance with receiving water limitation at all times outside of the treatment areas. The discharger must demonstrate compliance with receiving water limitations within 21 days after the application event. This demonstration must use sample reporting protocols defined in Attachment E and Attachment A of this Order.

For purposes of reporting and enforcement by the Lahontan Water Board, the Discharger shall be determined to be out of compliance with receiving water limitations if residual aquatic herbicide, Rhodamine WT or lanthanum-modified clay discharges cause the pollutant concentrations, as reflected by monitoring sample results, to exceed receiving water limitations established in this Order and greater than or equal to the reporting level (RL).

A. Instantaneous Maximum Receiving Water Limitations

If the analytical result of a single grab sample is higher than the instantaneous maximum receiving water limitation for a parameter, the Discharger may be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken different times within a calendar day that both exceed the instantaneous maximum receiving water limitation would result in two instances of non-compliance with the instantaneous maximum receiving water limitation). Duplicate samples taken at the same time and location for QA/QC purposes will not be considered in determining the total number of exceedances. QA/QC includes splitting a sample and/or collection of duplicate samples for analysis by a different laboratory. Reanalysis of samples after re-calibration and maintenance of field test instruments will not be considered in determining the total number of exceedances.

X. PUBLIC PARTICIPATION

The Lahontan Water Board has considered the issuance of this WDR that will serve as an NPDES permit for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test Project. As a step in the WDR adoption process, the Lahontan Water Board staff developed a tentative and proposed WDR and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Lahontan Water Board notified the Discharger and interested agencies and persons of its intent to prescribe a WDR for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through **web posting on the Lahontan Water Board website** on September 15, 2021.

The public had access to the agenda and any changes in dates and locations through the Lahontan Water Board's website at: http://www.waterboards.ca.gov/lahontan

B. Written Comments

Interested persons were invited to submit written comments concerning the tentative and proposed WDR as provided through the notification process. Comments were due either in person or by mail to the Executive Officer at the Lahontan Water Board at the address on the cover page of this Order.

To be fully responded to by staff and considered by the Lahontan Water Board, the written comments were due at the Lahontan Water Board office by 5:00 p.m. on Nov 1, 2021**.**

C. Public Hearing Opportunity

The Lahontan Water Board posted a Notice of a Public Hearing announcement on the Water Board's website on December 9, 2021 and a public hearing was held at the January 12-13, 2022 Board meeting.

The Lahontan Water Board held a public meeting and provided an opportunity for interested parties to testify in a public hearing on the proposed WDR and permit during its regular Board meeting on the following date and time and at the following location:

Date:	**January 12, 2022, and if necessary, January 13, 2022.**
Time:	**10:00 am**
Location:	**Video and Teleconference Only**

Interested persons were invited to attend. At the public meeting, the Lahontan Water Board heard any testimony pertinent to the discharge, WDRs, and permit.

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Lahontan Water Board regarding the final WDR. The petition must be received by the State Water Board at the following address within 30 calendar days of the Lahontan Water Board's action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The ROWD, draft Order, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Lahontan Water Board by calling (530) 542-5400.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDR and NPDES permit should contact the Lahontan Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Russell Norman at (530) 542-5435

Attachment G – Antidegradation Analysis

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Attachment G– Antidegradation Analysis

As described in section F.IV.B.2.d of this Order, the Lahontan Water Board incorporates this Antidegradation Analysis as findings of the Lahontan Water Board supporting the issuance of this Order.

I. INTRODUCTION

Federal regulations at 40 CFR section 131.12 require that state water quality standards include an antidegradation policy consistent with federal requirements. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Where the federal antidegradation policy is applicable, the State Water Board has interpreted Resolution No. 68-16 to incorporate the federal antidegradation policy. The Lahontan Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16. Resolution No. 68-16 and 40 CFR section 131.12 require that the water quality of waters designated as Outstanding National Resource Waters (ONRW) be maintained and protected. In 1980, pursuant to federal antidegradation regulations (40 Code of Federal Regulations § 131.12), the State Water Resources Control Board designated Lake Tahoe as an ONRW for its recreational and ecological value.

The Tahoe Keys Lagoons Aquatic Weed Control Methods Test (Project) will include discharges into the Tahoe Keys Lagoon and Lake Tallac. The Tahoe Keys Lagoons are connected to Lake Tahoe. Lake Tahoe is designated as an ONRW. While permanent degradation to a non-ONRW is allowed when found consistent with the antidegradation policies, permanent degradation of the ONRW is not allowed. The scope of the ONRW analysis is limited to those discharges that could reach the ONRW and the change in water quality in the ONRW. The Tahoe Keys Lagoons are treated as a water of the U.S and are hydrologically connected to Lake Tahoe. For purposes of the antidegradation analysis for this project, discharges into the Tahoe Keys Lagoons are treated as discharges into the ONRW (i.e., "Tier III" waters under antidegradation policies). Lake Tallac is a feature of an un-named tributary to Pope Marsh draining an area of the City of South Lake Tahoe. Pope Marsh is known to directly flow to Lake Tahoe during periods of high inflow to Pope Marsh. For the purposes of this analysis, discharges into Lake Tallac are also treated as possible discharges into Tier III waters. Tier III waters are provided the highest protection under State and federal antidegradation policies.

The Lahontan Water Board finds that the permitted discharges authorized by this Order are consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16, as set forth herein.

The following report discusses:

1. Antidegradation Policy Background

2. A description of the discharge
3. Baseline Water Quality
4. Changes to Water Quality
5. Description of how waste discharge requirements result in the best practicable treatment or control of the discharge
6. Description of how the highest water quality consistent with maximum benefit to the people of the State will be maintained.

II. ANTIDEGRADATION POLICY BACKGROUND

State antidegradation policy contained in State Water Board Resolution No. 68-16 specifies in substantial part that:

> *"Whenever the existing quality of water is better than the quality established in policies… such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.*
>
> *Any activity…which proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."*

Federal antidegradation policy at 40 C.F.R section 131.12(a)(3) specifies for Tier III waters (i.e., ONRWs):

> *"Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected."*

The Administrative Procedures Update titled *Antidegradation Policy Implementation for NPDES Permitting* (APU 90-004, July 2, 1990) provides guidance for Regional Boards implementing State Water Board Resolution No. 68-16 and the Federal Antidegradation Policy, as set forth in 40 CFR 131.12 as applied to the NPDES permitting process. Additional guidance on the federal antidegradation policy is contained in the USEPA Water Quality Standards Handbook (EPA-823-B-12-002, 2012) and other documents prepared by USEPA Region 9. Outstanding National Resource Waters (ONRWs) are provided the highest level of protection under the antidegradation policy. The water quality of ONRWs must be "maintained and protected." U.S EPA in Section 4.7 of the USEPA Water Quality Standards Handbook notes that the state can allow activities that result in temporary and short-term changes in the water quality of an ONRW (i.e., Tier III waters) provided those changes do not permanently degrade water quality or result in water quality lower

than that necessary to protect the existing uses in the ONRW. The term “temporary and short-term” is undefined and is dependent on the activity involved. However, the USEPA Water Quality Standards Handbook notes that in rather broad terms, “EPA’s view of temporary is weeks and months, not years. The intent of EPA's provision clearly is to limit water quality degradation to the shortest possible time.”

As indicated in the Lahontan Basin Plan, “[t]he State Board designated Lake Tahoe an Outstanding National Resource Water (ONRW) in 1980, both for its recreational and its ecological value, and stated: ‘Viewed from the standpoint of protecting beneficial uses, preventing deterioration of Lake Tahoe requires that there be no significant increase in algal growth rates. Lake Tahoe's exceptional recreational value depends on enjoyment of the scenic beauty imparted by its clear, blue waters. ...Likewise, preserving Lake Tahoe's ecological value depends on maintaining the extraordinarily low rates of algal growth which make Lake Tahoe an outstanding ecological resource.’” In interpreting what water quality of ONRWs must be “maintained and protected,” the Lahontan Water Board has interpreted “water quality” in terms of the characteristics for which the water body was selected to be an ONRW. Those characteristics must always be maintained and protected. However, other characteristics may be degraded when determined to be consistent with the Antidegradation Policies. As indicated in the Basin Plan, the characteristics that make Lake Tahoe an exceptional recreational and ecological resource are related to its clear, blue waters. These are the characteristics that must be maintained and protected.

Available state and federal antidegradation guidance focus on procedures for conducting antidegradation analysis in waters that are not designated as ONRW. In waters that are not designated as ONRW, when the baseline quality of a waterbody for a given constituent “exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected” through the requirements of the order unless certain findings are made by the Regional Board. The guidance focuses on the findings that must be demonstrated in high quality waters that are not “maintained and protected” (i.e., those discharges that result in long-term and permanent lowering of water quality). In contrast, water quality in waters designated as ONRWs must be “maintained and protected.” Therefore, in showing that a discharge will lead to only “temporary and short-term” changes to water quality in an ONRW, and thus that the water quality of an ONRW will be “maintained and protected”, the Lahontan Water Board is not required to make findings consistent with 40 C.F.R section 131.12(a)(2) and State Water Board Resolution 68-16 to allow a lowering of water quality. However, while not required under the Antidegradation Policies, for purposes of informing the public, the analysis below does contain information on how the “temporary and short-term” changes are necessary to accommodate economic or social development in the area. The analysis also includes a description on how waste discharge requirements result in the best practicable treatment or control of the discharge.

As indicated in APU 90-004, the Lahontan Water Board may determine that a complete antidegradation analysis is unnecessary and instead conduct a "simple" antidegradation analysis. The Lahontan Water Board may reach this determination if the Lahontan Water Board decides that the discharge will not be adverse to the intent and purpose of the Antidegradation Policies. A complete antidegradation analysis is not required when a lowering of water quality is temporally limited and will not result in any long-term deleterious effects on water. The Lahontan Water Board determines that the findings made below meet the requirements of a simple antidegradation analysis. However, while not required, for purposes of informing the public, the antidegradation analysis includes additional information and findings beyond the requirements of a simple antidegradation analysis.

The Basin Plan notes at page 4.1-4 that if an aquatic pesticide project is allowed to occur, the Regional Board must find that the discharge complies with antidegradation policies. The Basin plan acknowledges that during the treatment event of the pesticide application, a spatial and temporal zone of impacts exists in which water quality and beneficial uses are temporarily not protected. The Basin Plan permits this temporary impact to occur in waterbodies throughout the Lahontan Region, including waterbodies that are designated as ONRWs. For discharges of residual pesticides, the Basin Plan indicates that if residues escape the treatment area, the impact from the residue is not expected to degrade water quality, and will not be permitted to violate water quality objectives that are established at levels protective of beneficial uses in the receiving waters. Further discussion on page 4.1-5 of the Basin Plan notes that any water quality degradation within the receiving water "is expected to be temporary, since pesticide residues escaping the treatment area breakdown through degradation mechanisms (volatilization, photolysis, etc.) and are not expected to persist beyond hours or days."

III. DISCHARGE DESCRIPTION

The purpose of the Project is to evaluate the effectiveness of chemical and non-chemical control methodologies for three target aquatic weeds: Eurasian watermilfoil (*Myriophyllum spicatum*), curlyleaf pondweed (*Potamogeton crispus*), and coontail (*Ceratophyllum demersum*) in the Tahoe Keys Main Lagoon and Lake Tallac. Two aquatic herbicides, endothall and triclopyr, will be applied to multiple test sites (i.e., treatment areas) in the Tahoe Keys Main Lagoon and Lake Tallac. The individual treatment areas average approximately one (1) acre in size with 14 acres being treated in the Tahoe Keys Main Lagoon and 2.9 acres being treated in Lake Tallac. Total, with a combined treatment area of 16.9 acres. The Project also includes the application of Rhodamine WT at all aquatic herbicide treatment areas. Each aquatic herbicide treatment area is proposed to be treated one time with one aquatic herbicide (i.e., endothall or triclopyr) and Rhodamine WT. Each aquatic herbicide, laminar flow aeration, and ultraviolet light treatment areas may receive one or more applications of lanthanum-modified clay, as necessary to mitigate for harmful algal blooms that are triggered by increasing phosphorus concentrations due to plant die off in treatment areas. The treatment areas are bounded by untreated receiving waters that do not receive any aquatic herbicide application. The receiving waters

outside of the test sites in the Tahoe Keys Main Lagoon will provide an approximately 4:1 dilution ratio for treated waters (approximately 600 acre-feet of untreated receiving waters versus approximately 140 acre-feet of treated waters). The permitted discharges authorized by this Order are the discharge of residual aquatic herbicides, Rhodamine WT, and lanthanum-modified clay.

A. Chemical Constituents

The chemical constituents that constitute the discharge include: endothall acid (CAS# 145-73-3), endothall dipotassium salt (CAS# 2164-07-0), triclopyr acid (CAS# 55335-06-3), TCP (CAS# 6515-38-4), 3,6-DCP (CAS# 57864-39-8), lanthanum-modified clay (lanthanum & bentonite clay), and Rhodamine WT (CAS# 37299-86-8).

B. Application Rates and Methods

Endothall Dipotassium Salt

Endothall is proposed to be applied to obtain a 2 mg/L (i.e., 2 ppm) concentration of endothall within test sites. The maximum allowable rate of application of endothall per the approved pesticide label is 5 mg/L (i.e., 5 ppm).

Triclopyr TEA

Triclopyr is proposed to be applied to obtain a 1 mg/L (i.e., 1 ppm) concentration of triclopyr within test sites. The maximum allowable rate of application of triclopyr per the approved pesticide label is 2.5 mg/L (i.e., 2.5 ppm).

Application of the aquatic herbicides is proposed as liquid formulations. To assist in herbicide mixing and attainment of the target herbicide concentrations, the liquid herbicides will be applied from boat-mounted tanks by pumping through drop hoses to deliver the herbicides from mid-depth to the bottom of the water column as the boat traverses the test site. Triclopyr is also proposed to be used in shallow, rocky areas around the perimeter of the test sites in a granular formulation. Granular triclopyr will be spread using a granular spreader to deliver the herbicide granules to the water surface in these areas.

Rhodamine WT

Rhodamine WT is proposed to be applied to obtain a 10 µg/L or less concentration of Rhodamine WT in each aquatic herbicide treatment area. Application of Rhodamine WT is proposed as a liquid formulation applied as described above for the liquid herbicide formulations.

Lanthanum-Modified Clay

Lanthanum-modified clay is proposed to be applied as needed to address harmful algal blooms in aquatic herbicide, laminar flow aeration, and ultraviolet light treatment areas and at the application rate consistent with label instructions. In no case shall the quantity of lanthanum-modified clay discharged be greater than the amount necessary to reduce the phosphorus in the waterbody to attain the target range of total phosphorus concentration. Lanthanum-modified clay is

typically applied at a rate of 55 to 100 lbs per ac-ft of water. Lanthanum-modified clay is applied as a liquid slurry from boat-mounted tanks to the water surface at a rate that produces a 50-150 mg/L lanthanum concentration in the treatment area.

IV. BASELINE WATER QUALITY

In accordance with APU 90-004, the potential for degradation to the water quality baseline is evaluated by comparing baseline water quality to the receiving water quality likely to result from the discharge. Baseline water quality is the best quality of the receiving water that has existed since 1968 (or since 1975 under federal antidegradation), unless the relevant objective was adopted at a later date, or degradation was already authorized in a previous board action through an appropriate antidegradation analysis. Baseline water quality is chemical specific. Pollutants in the discharge that could lower water quality are the endothall aquatic herbicide active ingredient and degradants (i.e., endothall dipotassium salt, endothall acid), triclopyr aquatic herbicide active ingredient and degradants (i.e., triclopyr triethylamine salt, triclopyr acid, TCP and 3,6-DCP), free lanthanum, and Rhodamine WT. Changes in water quality could also result from the application of endothall aquatic herbicide active ingredient and the triclopyr aquatic herbicide active ingredient

Endothall has never been permitted in the Tahoe Keys Lagoons and waters of Lake Tahoe. Receiving water quality data on endothall in Lake Tahoe is not available. However, endothall is a man-made substance that does not persist in the environment. Therefore, the baseline water quality for endothall is considered non-detect.

There are no relevant water quality objectives for triclopyr and Rhodamine WT. Triclopyr discharges have never been permitted in the Tahoe Keys Lagoons and waters of Lake Tahoe. While discharges of Rhodamine WT have occurred in Tahoe Keys Lagoons, degradation has not been authorized in a previous board action. Triclopyr and Rhodamine WT are man-made substances that do not persist in the environment. Therefore, for purposes of this analysis and to determine whether any water quality changes are short-term and temporary, baseline water quality with respect to triclopyr and Rhodamine WT is assumed to be the best (i.e., lowest) that has existed since 1968 and 1975 at non-detect.

There are no relevant water quality objectives for lanthanum. Lanthanum discharges have never been permitted in the Tahoe Keys Lagoons and waters of Lake Tahoe. Lanthanum is a naturally occurring earth element and background concentrations are found in soils throughout the world including the United States[1] . Lanthanum is generally found in soil in a stable form (bound to an anion) and not chemically available for uptake in the soil or release into the water column. Therefore, for purposes of this analysis and to determine whether any water quality changes are

[1] Shacklette, H.T., Boerngen, J.G.m 1984, Element concentrations in soils and other surficial materails of the conterminous United States. U.S. Department of the Interior, U.S. Geological Survey.

short term and temporary, baseline water quality with respect to lanthanum is assumed to be the best (i.e., lowest) that has existed since 1968 and 1975 at non-detectable.

V. CHANGES IN WATER QUALITY

The application of endothall, triclopyr, Rhodamine WT and lanthanum-modified clay will change water quality within the treatment areas and potentially within receiving waters during Project implementation. However, as is demonstrated, below, these changes in water quality will be temporary and short-term and the Project will not result in any permanent water quality degradation and beneficial uses will be protected.

As discussed in the Baseline Water Quality section, above, there have been no permitted discharges of endothall, triclopyr, Rhodamine WT or lanthanum-modified clay in which degradation was already authorized to the Tahoe Keys Lagoons or to the waters of Lake Tahoe. Baseline concentrations for the endothall, triclopyr, Rhodamine WT, and lanthanum-modified clay are assumed to be the best since 1968 and 1975 at non-detectable. The application of these products to the Tahoe Keys Main Lagoon and Lake Tallac will increase concentrations above baseline water quality conditions, resulting in a change in water quality. However, as is demonstrated below, the change in water quality will be temporary and short-term, with no permanent water quality degradation and beneficial uses will be protected.

A. Endothall[2]

Duration of Change to Water Quality Endothall is the common name for endothall acid and a preferred un-hydrated form for aquatic herbicide use is endothall dipotassium salt. Endothall dipotassium salt breaks down to endothall acid (the active ingredient) and potassium cations upon contact with water. Endothall acid degrades to unextractable residues and carbon dioxide (CO_2) with median field dissipation half-lives of 8.5 days (range: 4.1 to 30 days) in laboratory studies, 4.1 days (range: 0.5 to 20 days) in studies on ponds, and 1.2 days (range: 0.24 to 8.5 days) in studies on lakes. Field dissipation studies indicate median disappearance time for endothall acid in lakes and reservoirs of seven (7) days. For untreated areas lacking the bacteria to degrade endothall acid, there may be a several week lag period before endothall starts actively degrading. Endothall may leach to ground waters but endothall's rapid degradation rates would limit depth of leaching. Sediment dissipation half-lives of 2.5 to 8.9 days have been observed for endothall dipotassium salt. Observed half-lives in sediment of endothall dipotassium salt are reported to range from 9 to 14.5 days.

The proposed application would be conducted in distinct treatment events in select locations. At a proposed 2 mg/L treatment concentration, concentrations of endothall in treatment area water and sediment are expected to be on the

[2] *Environmental Fate and Ecological Risk Assessment of Endothall – Revised*, April 22, 2005, USEPA, EPA-HQ-OPP-2009-0081-0143

order of 1 mg/L or less within approximately three weeks of treatment and 0.063 mg/L or less within 30 days of treatment based on field dissipation half-lives and assuming a degradation lag time of several weeks. These time frames are on the scale of weeks and months, not years, and representative of temporary and short-term changes.

The information above demonstrates how there will be no permanent water quality degradation associated with applying Endothall.

Beneficial Use Protection - The discharge of endothall dipotassium salt may result in impacts to non-target aquatic plants within treatment areas. To minimize impacts to non-target plant species and optimize selectivity for target aquatic plants, the Discharger has conducted mesocosm studies to select the Project's two aquatic herbicides and application rates that are less than the allowable maximum. The Discharger will also conduct pre-treatment aquatic plant surveys to select final treatment sites that have highest coverage of target plants and ensure control sites are selected with similar target aquatic weed composition. Eliminating target invasive aquatic plant species is expected to reduce competition for native species and provide conditions more suitable for native plant recolonization at levels of coverage equal to or greater than pre-treatment conditions. The entire water body is not proposed to be treated therefore any migration of endothall outside treatment areas would be subject to dilution and impacts to non-target plants will be spatially limited within the waterbody. Given the low application rates of 2 mg/L, containment within treatment areas and dilution available in adjacent untreated waters, damage to or loss of non-target plants in receiving waters is not expected.

The most sensitive acute aquatic life toxicity concentration (i.e., LC_{50}) for endothall is 9.15 mg/L for Rainbow trout (*Oncorhynchus mykiss*). Therefore, no toxic effects upon aquatic life (i.e., fish, benthic macroinvertebrates) within treatment areas or adjacent receiving waters are expected with the proposed application rate of 2 mg/L endothall. The exposure from the discharge would not elicit chronic toxic effects to aquatic life.

Treatment areas with an application rate of 2 mg/L endothall will temporarily exceed the drinking water maximum contaminant level (MCL) for endothall of 0.1 mg/L. Based upon the information regarding endothall's half-life, above, it is anticipated that endothall concentrations within treatment areas will return to levels less than the MCL within a month, but could occur within several days. Best management practices (BMPs) identified, below, are also designed to prevent exceeding the MCL for endothall in the receiving waters surrounding the treatment areas, and by doing so, will protect and maintain the Municipal and Domestic Supply (MUN) beneficial use in the receiving waters. Additionally, the Tahoe Keys Water Supply Company's three (3) drinking water supply wells located around the Tahoe Keys Main Lagoon are not expected to be impacted based upon the well monitoring data documenting no Rhodamine WT detections

while conducting Rhodamine WT studies in the lagoons[3]. In addition, the lagoons are not known to influence the drinking water supply wells and the depth to the well extraction zones (i.e., 150-430 feet) and hydrogeology create additional barriers between the Tahoe Main Lagoon and the well extraction zones, further protecting the MUN beneficial use.

Therefore, the Project will not result in the water quality of the Tahoe Keys Main Lagoon, Lake Tallac, and Lake Tahoe being lower than necessary to protect their existing beneficial uses.

The information, above, combined with the temporary and short-term nature of the water quality changes resulting from endothall discharges, supports the finding that water quality will be maintained and protected.

B. Triclopyr[4]

Duration of Change to Water Quality - Triclopyr triethylamine salt (also referred to as TEA) dissociates in water to triclopyr acid, which then degrades to TCP, DCP, 5-CLP, 6-CLP, and other minor degradants. Triclopyr acid may be found in both water and sediment; however, its chemical properties indicate a low tendency to absorb to soil and, as a result, a separate sediment exposure assessment was not triggered for triclopyr acid. Bioconcentration of triclopyr TEA and triclopyr acid are noted as not of primary concern based on their chemical properties. Triclopyr is classified as mobile in groundwater and shallow groundwaters are vulnerable to triclopyr leaching.

Triclopyr acid half-lives of 0.4-26 days have been observed in aerobic soil/aquatic systems and 69 to >1,000 days in anerobic soil/aquatic systems. Field dissipation studies conducted in static and non-static lakes indicate dissipation half-life of triclopyr acid ranges from 0.5-5 days in non-static lakes and 7-9 days in static lakes, and only small amounts of triclopyr acid partitioned into sediments with half-lives ranging from 3-7 days in non-static lakes and 4-5 days in static lakes.

Major degradants of triclopyr acid are TCP and 3,6-DCP. TCP formation levels observed in laboratory studies range from 24-33% with an estimated half-life of 20-70 days. 3,6-DCP formation levels in laboratory studies range from 21% in some anerobic systems to 52% in aerobic aquatic systems and exhibited stability showing only slight decline. Studies examining these degradants and other degradation byproducts (i.e., residues of concern or ROCs) demonstrated half-lives of ROCs of 0.4 to 183.1 days in aerobic soil/aquatic systems and stability in anaerobic soil/aquatic systems.

At a proposed 1 mg/L initial treatment concentration, concentrations of triclopyr including ROCs in treatment area water and sediment are expected to be on the

[3] *Draft Environmental Impact Report/Final Environmental Impact Statement for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test*, July 6, 2020.
[4] *Triclopyr (Acid, Choline salt, TEA salt, BEE): Draft Ecological Risk Assessment for Registration Review,* September 30, 2019, USEPA, EPA-HQ-OPP-2014-0576-0026

order of 0.5 mg/L or less within 7 days of treatment and 0.25 mg/L within 14 days of treatment based on field dissipation studies. These time frames are on the scale of weeks and months, not years, and representative of temporary and short-term changes. The information, above, also demonstrates how there will be no permanent water quality degradation associated with applying Triclopyr.

Beneficial Use Protection - The discharge of triclopyr may result in impacts to non-target aquatic plants within treatment areas. To minimize impacts to non-target plant species and optimize selectivity for target aquatic plants, the Discharger has conducted mesocosm studies to select the Project's two aquatic herbicides and application rates that are less than the allowable maximum. The Discharger will also conduct pre-treatment aquatic plant surveys to select final treatment sites that have highest coverage of target plants and ensure control sites are selected with similar target aquatic weed composition. Eliminating target invasive aquatic plant species is expected to reduce competition for native species and provide conditions more suitable for native plant recolonization at levels of coverage equal to or greater than pre-treatment conditions. The entire water body is not proposed to be treated; therefore, any migration of triclopyr outside treatment of areas would be subject to dilution and impacts to non-target plants will be spatially limited within the waterbody. Given the low application rates of 1 mg/L, containment within treatment areas and dilution available in adjacent untreated waters, damage to or loss of non-target plants in receiving waters outside of treatment areas is not expected.

The most sensitive acute aquatic life toxicity concentration (i.e., LC_{50}) for the TCP residue of triclopyr is 10.4 mg/L for water flea (*Daphnia magna*). Therefore, no toxic effects upon aquatic life (i.e., fish, benthic macroinvertebrates) within treatment areas or adjacent receiving waters are expected with the proposed application rate of 1 mg/L triclopyr TEA. The proposed application would be conducted in distinct events in select locations. As a result, the exposure from the discharge would not elicit chronic toxic effects to aquatic life.

Treatment areas with an application rate of 1 mg/L triclopyr will temporarily exceed the dietary exposure limit for drinking water of 0.4 mg/L. Using a field dissipation half-life of seven (7) days, it is anticipated that triclopyr concentrations within treatment areas will return to levels less than the dietary exposure limit within two weeks. Best management practices (BMPs) identified, below, are also designed to prevent exceeding the dietary exposure limit for triclopyr in the receiving waters surrounding the treatment areas, and by doing so, will protect and maintain the Municipal and Domestic Supply (MUN) beneficial use in the receiving waters. Additionally, the Tahoe Keys Water Supply Company's three (3) drinking water supply wells located around the Tahoe Keys Main Lagoon are not expected to be impacted based upon the well monitoring data documenting no Rhodamine WT detections while conducting Rhodamine WT studies in the lagoons[4]. In addition, the lagoons are not known to influence the drinking water supply wells and the depth to the well extraction zones (i.e., 150-430 feet) and

hydrogeology create additional barriers between the Tahoe Main Lagoon and the well extraction zones, further protecting the MUN beneficial use.

Therefore, the Project will not result in the water quality of the Tahoe Keys Main Lagoon, Lake Tallac, and Lake Tahoe being lower than necessary to protect their existing beneficial uses.

The information, above, combined with the temporary and short-term nature of the water quality changes resulting from triclopyr discharges, supports the finding that water quality will be maintained and protected.

C. Rhodamine WT

Duration of Change to Water Quality - The half-life of Rhodamine WT is temperature dependent and ranges from 15.3 to 21.9 days based on studies under natural sunlight at 30 degrees north latitude[5]. There are no degradation byproducts of concern identified for Rhodamine WT. Prior Rhodamine WT applications in 2011 at a 100 µg/L application rate in the lagoons indicate disappearance times for un-contained discharges from more than 6 days to more than 45 days[6]. Prior Rhodamine WT applications in 2016 at a 10 µg/L application rate in the lagoons indicate approximately 1% of the total Rhodamine WT had moved from the injection site after two weeks when contained with double containment curtains[7]. This study also detected approximately 1,000 feet of movement of the Rhodamine WT outside the original contained area when the curtains were removed at 15 to 25 ppt (parts per trillion). Based upon the information, above, and an application rate of 10 ug/L, Rhodamine WT concentrations are expected to diminish to non-detect over a period of weeks to months, representing a temporary and short-term change in water quality. The information, above, also demonstrates how there will be no permanent water quality degradation associated with applying Rhodamine WT.

Beneficial Use Protection - The discharge of Rhodamine WT is not expected to result in damage to or loss of target and non-target plants in treatment areas and receiving waters. For aquatic life, the most sensitive acute aquatic life toxicity concentration (i.e., LC_{50}) for Rhodamine WT is 170 mg/L for water flea (*Daphnia magna*)[8]. Therefore, no toxic effects upon aquatic life (i.e., fish, benthic macroinvertebrates) within treatment areas or adjacent receiving waters are expected.

Rhodamine WT is proposed to be applied to obtain a 10 µg/L or lower concentration in each aquatic herbicide treatment area. The 10 ug/L receiving

[5]PubChem (Chemical Id# 37718), https://pubchem.ncbi.nlm.nih.gov/compound/Rhodamine-WT
[6] Anderson 2011. Anderson, L.W.J. Use of Rhodamine wr as Surrogate for Herbicide Transport in the Tahoe Keys. Final Report to the Lahontan Regional Water Quality Control Board, Project No. R6T-2010-0037.
[7] Anderson 2016. Anderson, L.W.J. Rhodamine wr Dye Applications in the Tahoe Keys. Final Report to the Lahontan Regional Water Quality Control Board, Project No. R6T-2016-0028 (2016).

[8] Material Safety Data Sheet for Rhodamine WT, November 15, 2013.

water limit for Rhodamine WT is based on National Sanitation Foundation (NSF) Standard 60[9]. The use of this industry standard is considered appropriate to protect surface waters near drinking water intakes. The nearest drinking water intake is approximately one mile from the discharge locations of Rhodamine WT.[4] Based on proximity to the nearest drinking water intakes (i.e., approximately one mile and the rate of application, the discharge will not unnecessarily affect the Municipal and Domestic Supply (MUN) beneficial use. Water intakes will be further protected by the BMPs required in the order and discussed, below. Additionally, the Tahoe Keys Water Supply Company's three (3) drinking water supply wells located around the Tahoe Keys Main Lagoon are not expected to be impacted because well monitoring data indicated no Rhodamine WT detections in well monitoring data during prior Rhodamine WT studies in the Tahoe Key Lagoons[4]. In addition, the lagoons are not known to influence the drinking water supply wells and the depth to the well extraction zones (i.e., 150-430 feet) and hydrogeology create additional barriers between the Tahoe Main Lagoon and the well extraction zones, further protecting the MUN beneficial use.

The application of Rhodamine WT is not expected to have an observable effect upon water color within treatment areas or receiving waters. Rhodamine WT becomes barely visible at a concentration of 50 ug/L. This is five times the Rhodamine WT concentration of 10 µg/L or lower to be obtained in each aquatic herbicide treatment area. The application of Rhodamine WT is not expected to cause exceedances of the water quality objective for Color for surface waters.

Therefore, the Project will not result in the water quality of the Tahoe Keys Main Lagoon, Lake Tallac, and Lake Tahoe being lower than necessary to protect their existing beneficial uses.

The information, above, combined with the temporary and short-term nature of the water quality changes resulting from Rhodamine WT discharges, supports the finding that water quality will be maintained and protected.

D. Lanthanum-Modified Clay

Duration of Change to Water Quality –Lanthanum-modified clay, if necessary, will be applied to the water surface as a slurry within one or more treatment areas. Lanthanum-modified clay is proposed to be applied as needed to address harmful algal blooms in any project treatment area (aquatic herbicide, laminar flow aeration, and ultraviolet light treatment). Lanthanum-modified clay is typically applied at a rate of 55 to 100 lbs per ac-ft of water. In no case shall the quantity of lanthanum-modified clay discharged be greater than the amount necessary to reduce the phosphorus in the waterbody to attain the target range of total phosphorus concentration.

Lanthanum-modified clay binds with free phosphorus and quickly (within approximately 24 hours) settles to the bottom of the waterbody as the insoluble mineral rhabdophane. Any changes to water clarity are restored to pre-

[9] Federal Register V63, No. 40, Part III, Page 10283, March 2, 1998.

application conditions once the lanthanum-modified clay has settled. The 24-hour settling process resulting in restoration of water quality to pre-application conditions is on the scale of hours, and representative of temporary and short-term changes. The information, above, also demonstrates how there will be no permanent water quality degradation associated with applying lanthanum-modified clay.

Beneficial Use Protection - The discharge of lanthanum-modified clay is not expected to result in damage to or loss of target and non-target plants in treatment areas and receiving waters. For aquatic life, the acute LOEC for water flea (*Ceriodaphnia dubia*) is greater than 50 mg/L lanthanum-modified clay. Lanthanum-modified clay would be applied as a granular formulation or as a 50-150 mg/L slurry discharged to the water surface from a slurry tank and only the minimum amount of lanthaum-modified clay would be discharged to achieve the target phosphorus reduction. When lanthanum modified clay is discharged as a granular formulation or liquid slurry it rapidly settles to the bed of the treatment area over 24-hours. As a result, aquatic life in the water column would be briefly exposed to the discharge concenterations. Therefore, no toxic effects upon aquatic life (i.e., fish, benthic macroinvertebrates) within treatment areas or adjacent receiving waters are expected. Additionally, the application of lanthanum-modified clay is not expected to lead to any human health impacts.

Lanthanum-modified clay treated areas will see elevated turbidity and suspended solids concentrations, but are expected to return to pre-application levels within 24 hours. Best management practices (BMPs) identified, below, are also designed to prevent exceeding the turbidity and suspended solids water quality objectives in the receiving waters surrounding the treatment areas. The use of lanthanum-modified clay is intended to reduce phosphorus concentrations, which should eliminate or reduce HAB intensity. Eliminating or reducing HAB intensity will protect both contact and Non-contact Water Recreation beneficial uses.

As discussed, above, the lanthanum-modified clay binds with free phosphorus to form the mineral, rhabdophane. Any unbound lanthanum-modified clay that settles to the bed of the water body will also bind to free phosphorus in the sediment pore water. Rhabdophane has a very low solubility and is unlikely to dissociate to phosphate and free lanthanum under environmental conditions over time[10]. Therefore, a release of free lanthanum as a result of applying lanthanum-modified clay is not expected.

Therefore, the Project will not result in the water quality of the Tahoe Keys Main Lagoon, Lake Tallac, and Lake Tahoe being lower than necessary to protect their existing beneficial uses.

[10] PubChem (Chemical Id# 3081422), https://pubchem.ncbi.nlm.nih.gov/compound/Rhabdophane

The information, above, combined with the temporary and short-term nature of the water quality changes resulting from Lanthanum-modified clay discharges, supports the finding that water quality will be maintained and protected.

E. Monitoring Water Quality Changes

As indicated in this attachment, surface waters will be maintained and protected. This Order also requires the Discharger to monitor and report water quality data and other information as indicated in Attachment E. The required monitoring and reporting will confirm that water quality is maintained and protected.

VI. BEST PRACTICABLE TREATMENT OR CONTROL

The Order requires BMPs that ensure appropriate use, notification/communications, and spill prevention and that constitute Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT).

The Discharger will deploy the following BMPs:

A. Ensure Appropriate Use

1. Utilize qualified pesticide applicators licensed by the California Department of Pesticide Regulation (DPR).
2. Follow pesticide label requirements, project permit requirements, and approved project plans.
3. Conduct pre-project macrophyte surveys to select final treatment locations/test sites to optimize aquatic herbicide selection for each test site to minimize non-target species impacts and optimize treatment of target aquatic plant species.
4. Conduct treatment events in spring snow melt period when the lagoon water levels are lower than Lake Tahoe water levels resulting in water flowing from the lake into the lagoons.
5. Conduct treatment events in spring snow melt period before plant growth has reached peak biomass to minimize levels of dead biomass post-treatment and associated impacts of biomass decomposition to water quality.

B. Spill Prevention

1. Transport only the quantity of herbicide on the water needed for site being treated.
2. Implement a Spill Prevention, Response and Notification Plan.
3. Install double turbidity curtains adjacent to all treatment areas connected to or abutting the main forebay of the Main Lagoon and the West Channel entrance to Lake Tahoe.
4. Operate the bubble curtains at the Main Channel entrance from the Main Lagoon to Lake Tahoe.

5. Conduct treatment events in spring snow melt period when the lagoon water levels are lower than Lake Tahoe water levels resulting in water flow from the lake into the lagoons.

C. Herbicide Residue Tracking

1. Utilize Rhodamine WT aquatic dye tracing at time of aquatic herbicide application to trace herbicide residue migration and dissipation, and as a surrogate to provide fast assessment of herbicide residue presence in receiving waters.
2. Conduct real-time water quality monitoring including Rhodamine WT, DO, pH and Turbidity to target adjustments to the methods or pace of work necessary to maintain compliance with water quality objectives in receiving waters.
3. Monitor drinking water wells in the Tahoe Keys community for aquatic herbicide residues.

D. Communications

Alert the public and water purveyors if aquatic herbicide residues are detected in receiving waters outside of treatment areas.

E. Contingency Measures

Implement drinking water well treatment (i.e. filtration) if aquatic herbicide residues are detected in monitoring wells.

F. Aeration

Install aeration or other measures in treatment areas and receiving waters following treatment events, if necessary, to mitigate decreases in dissolved oxygen concentrations due to decomposition of dead plants associated with the Project. This Order establishes criteria under which implementing this mitigation measure would be required.

G. Harmful Algal Bloom Prevention and Mitigation

Apply lanthanum-modified clay to mitigate harmful algal blooms triggered by the Project by reducing free available phosphorus in the water column in treatment areas following aquatic herbicide, UV light or laminar flow aeration treatment. This Order establishes criteria under which implementing this mitigation measure would be required.

H. Additional BMPs Typically not Employed for Aquatic Weed Control Projects Using Aquatic Herbicides

1. Utilizing containment (i.e., turbidity barriers and bubble curtains);
2. Timing the treatments to minimize impacts to receiving waters;
3. Water tracing to quickly track chemical residue migration;
4. Basing applications on field studies to target herbicide selection and dosing to minimize non-target impacts;

5. Implementing contingency measures for drinking water supply well treatment if detections of herbicide residues occur in the well water;
6. Aeration of treatment areas and receiving waters to maintain the dissolved oxygen water quality objective; and,
7. Utilizing lanthanum-modified clay to lower phosphorus levels in treatment areas as needed to prevent harmful algal blooms, post-treatment event.

These measures constitute best practicable treatment and control and are incorporated as requirements of this Order. Therefore, these waste discharge requirements will result in best practicable treatment or control of the discharge to assure that (a) pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit of the people of the State will be maintained as further described below.

VII. MAXIMUM BENEFIT TO THE PEOPLE OF THE STATE

The following three benefits indicate that the short-term and temporary change in water quality resulting from the permitted discharge will be to the maximum benefit to the people of the state:

1. Eliminate target aquatic plant species to improve water quality and native species diversity and habitat. In the Basin Plan, the Regional Board recognizes that certain activities involving the application of pesticides (defined above) may be in the public interest because they protect public health and safety or provide ecological preservation. The discharge is proposed to improve water quality and beneficial use attainment through reduction of aquatic invasive and nuisance plants.
2. Protect greater Lake Tahoe from the proliferation of aquatic invasive weed infestations originating from the Tahoe Keys Lagoons by evaluating the effectiveness of chemical and non-chemical control methodologies for three target aquatic weeds: Eurasian watermilfoil (*Myriophyllum spicatum*), curlyleaf pondweed (*Potamogeton crispus*), and coontail (*Ceratophyllum demersum*) in the Tahoe Keys Main Lagoon and Lake Tallac. This may save taxpayers from future costs associated with the control of these species.
3. Inform private, state, and federal aquatic resource managers conducting similar aquatic invasive species control projects on Lake Tahoe.
4. Protection of the Outstanding Features of the ONRW. Aquatic invasive weed infestations threaten Lake Tahoe’s ecosystem, water quality, iconic clarity, and $5 billion recreation-based economy. Lake Tahoe's exceptional recreational value depends on the enjoyment of the scenic beauty imparted by its clear, blue waters. Any short-term and temporary water quality changes resulting from the application of aquatic herbicides will be to the maximum benefit of the people of state in preserving the features of Lake Tahoe that make it outstanding.

The temporary change in water quality resulting from the discharge is consistent with the maximum benefit to the people of the state since the discharge is proposed for environmental protection, specifically to determine an effective method or combination of methods to improve water quality, beneficial use attainment and aquatic habitat for native aquatic plant, fish and aquatic macroinvertebrate species through the reduction of target aquatic plants.

VIII. SUMMARY OF ANTIDEGRADATION FINDINGS

The permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. Due to the one-time nature, duration, effect, and low volume of discharge expected from the application of endothall, triclopyr, Rhodamine WT and lanthanum-modified clay regulated under this Order, water quality changes in the ONRW will be short-term and temporary, will not permanently degrade water quality, and will protect the existing uses in the ONRW. Therefore, the water quality of the ONRW is maintained and protected.

ENCLOSURE 4

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN REGION
MITIGATION MONITORING AND REPORTING

PROGRAM NO. R6T-2022-[PROPOSED]

MITIGATION MONITORING AND REPORTING PROGRAM FOR THE TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST

FOR

THE TAHOE KEYS PROPERTY OWNERS ASSOCIATION
CITY OF SOUTH LAKE TAHOE

Whereas, the California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. The Tahoe Keys Property Owners Association (TKPOA) has proposed the use of aquatic herbicides within the Tahoe Keys Lagoons. The project is called the Control Methods Test (CMT). A Final Environmental Impact Report/Environmental Impact Statement (FEIR/FEIS) was prepared by the Water Board to grant an exemption to the pesticide prohibition contained in the Lahontan Basin Plan. This Mitigation Monitoring and Reporting Program (MMRP) is being required as the primary monitoring program associated with the California Environmental Quality Act (CEQA). CEQA requires the monitoring and reporting program to ensure implementation of the mitigation measures, but CEQA does not specify how this should be done, instead leaving the format, contents, and complexity of the program to the interpretation of the lead agency.

2. As lead agency for CEQA, the Water Board has developed a MMRP to ensure implementation of the mitigation measures that were specified in the FEIR/FEIS. “Monitoring” is the ongoing process of project oversight to ensure the mitigation measures are implemented, and “reporting” is the written review of mitigation activities.

3. The following MMRP summary table below includes the mitigation measures identified in the FEIR/FEIS as reducing impacts to less than significant, and resource protection measures. The FEIR/FEIS describes resource protection measures for categories of impacts that are expected to be less than significant without mitigation. While the resource protection measures are not a mitigation measure identified in the FEIR/FEIS as reducing potentially significant impacts to less than significant, the MMRP includes monitoring and reporting actions that must be carried out to ensure implementation of both the mitigation measures and some resource protection measures. The monitoring and reporting actions that must be carried out and the monitoring schedule are either a requirement of Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for Tahoe Keys Property Owners Association Tahoe Keys Lagoons Aquatic Weed Control Methods Test or a requirement of the Water Code Section 13267 Order contained herein. For each mitigation measure, the MMRP summary table identifies the monitoring and reporting actions that must be carried out and identifies the permit or order which requires the monitoring.

4. TKPOA will be responsible for implementing each resource protection measure, mitigation measure, and monitoring and reporting those measures. The Water Board will be responsible for ensuring that the measures are implemented through review of reports and monitoring data submitted to the Water Board.

5. The Water Board finds that the burden, including costs, associated with the monitoring and reporting requirements in this Order bear a reasonable relationship to the need and benefits to be obtained. The requirements are necessary to characterize receiving water quality and protect beneficial uses.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
EH-1 Applicator Qualifications: Herbicide applications would be performed only by Qualified Applicator License (QAL) holders, who would be trained to follow NPDES permit requirements, use proper personal protective equipment, and follow product label specifications. Required in NPDES Order R6T-2022- 00XX permit, requirement VI.C.3.c.i.	QAL documentation for individuals who would be handling herbicide products would be required as part of TKPOA's contractor selection process and confirmed by TKPOA when the products are first mobilized to the Tahoe Keys. Any substitution of personnel handling herbicide products during CMT implementation would require QAL documentation and confirmation. TKPOA must provide documentation of the QAL holder.		TKPOA must provide documentation of the selection and performance of the herbicide application by a QAL holder as part of the annual reporting required in Section 7.0 of this MMRP.
EH-2, EH-3a, EH-4 Spill Prevention and Response Plan: A spill prevention and response plan would be implemented by a QAL holder to minimize and contain any spills during herbicide mixing and application, submitted for review as required by permitting agencies, and implemented at the work sites.	The spill prevention and response plan would require Water Board approval before herbicide products are mobilized to the Tahoe Keys. TKPOA personnel monitoring CMT implementation would be responsible for ensuring that plan requirements were followed throughout the herbicide		TKPOA must provide a description of the spill control BMPs implemented during herbicide application as part of the annual reporting required in Section 7.0 of this MMRP.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
Required in NPDES Order R6T-2022-00XX permit, requirement VI.C.3.a.iii.	applications and until herbicide products were demobilized. TKPOA must provide documentation of any spill control BMPs implemented.		
EH-3b Dye Tracing: Rhodamine WT dye would be applied by TKPOA during the herbicide applications and tracked to determine the movement and dissipation of dissolved herbicide products and chemical transformation products. If herbicides are detected in nearby wells, contingency plans include shutting off the wells and distributing water to all users until residues are no longer detected in the samples.	Rhodamine WT dye would be applied during each application of herbicide products and traced until the Rhodamine WT dye dissipates and is no longer detectable. TKPOA must report to the Water Board if contingency plans are implemented.		Monitoring for Rhodamine dye is specified in NPDES Order R6T- 2022-00XX as part of the Monitoring and Reporting Program Table E-1. Monitoring for Rhodamine WT dye is required more frequently than in the NPDES Permit requirements and is described below in Section 1.0 Rhodamine WT Dye and Contingency Monitoring of this MMRP. If herbicides are detected in nearby wells, TKPOA must provide a description of the contingency plans implemented as part of the annual reporting

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
			required in Section 7.0 of this MMRP.
EH-3c Well monitoring and contingencies: A monitoring plan would address potential effects to human health, based on the TKPOA (2018) Aquatic Pesticide Application Plan. Sampling would be conducted at all three TKPOA well water intakes and would include sampling for contamination by herbicides or degradants 24 hours prior to each application, and at 48-hour intervals thereafter for 14 days. Samples would be analyzed for active herbicide ingredients in the products applied, and contingency plans/measures if herbicides are detected.	Sampling would be conducted at all three TKPOA well water intakes and would include sampling for contamination by herbicides or degradants 24 hours prior to each application, and at 48-hour intervals thereafter for 14 days. TKPOA must report to the Water Board if contingency plans are implemented.		Monitoring frequency as specified in NPDES Order R6T-2022-00XX as part of the Monitoring and Reporting Program section IV.C. If herbicides are detected in nearby wells, TKPOA must provide a description of the contingency plans implemented as part of the annual reporting required in Section 7.0 of this MMRP.
EH-3d West Channel monitoring and contingencies: If herbicides are detected within the West Channel, additional	In any event, if herbicide residue is detected within 500 feet of the West Channel, the Water Board would be notified within 24 hours.		West channel monitoring is required and described below in Section 1.0 Rhodamine WT Dye and Contingency Monitoring.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
monitoring stations would be sampled outside the Tahoe Keys in Lake Tahoe and monitoring would continue south and north of the channel (TKPOA 2018). In any event, if herbicide residue is detected within 500 feet of the West Channel, the Water Board would be notified within 24 hours. Well monitoring would verify the effectiveness of carbon filtration to remove any herbicide residues. If herbicides were detected in wells, contingency plans would be implemented that could include shutting off wells and distributing bottled drinking water until residues are no longer detected in the samples.			
EH-3g Double Turbidity Curtain Barriers: Double turbidity curtain barriers would be installed outside West Lagoon areas where herbicide testing sites are located, to confine the herbicide applications and ensure that	The barriers would be installed before any herbicide products were used in the Tahoe Keys and would not be removed until monitoring demonstrated that herbicide degradants were not		Monitoring as specified in NPDES Order R6T-2022-00XX as part of the Monitoring and Reporting Program Table E-1. Monitoring during installation of turbidity curtains is described

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
herbicide residues or chemical transformation products do not migrate toward the West Channel connecting the West Lagoon to Lake Tahoe.	detectable on the landward side of the barriers.		below as part of Section 2.0 Turbidity Monitoring.
EH-5a Best Management Practices: Best management practices (BMPs) to minimize sediment disturbance would be followed. Turbidity would be monitored to ensure that sediment disturbance and the consequent potential for mobilization of aluminum into the water column is minimized. Required in the NPDES Order R6T-2022-00XX Section VI.C.3.h.	BMPs would be included in permit conditions for any CMT work approved by the TRPA and Water Board. Implementation of BMPs would be tied to real-time monitoring of turbidity during project activities having the potential to disturb sediments, with BMPs triggered by exceedances of permit turbidity limits.		Monitoring required is described below as part of Section 2.0 Turbidity Monitoring.
EH-6a, WQ-5a, WQ-6a, WQ-7a Timing and Size of Treatments: EH-6a: Spring aquatic plant surveys would be conducted to ensure that herbicide treatments occur at times when target aquatic weeds	The timing of weed control treatments and the boundaries of test sites will be finalized in the spring of CMT Year 1 and be conditioned on permitting agency approval.		Monitoring for macrophytes is required and described below in Section 5.0 Project Field Surveys and Reports. .

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
plants are in their early stages of growth so that the volume of decomposing plant material is minimized. The locations of test sites would be adjusted as needed to ensure that the targeted species are present for each herbicide application and ultraviolet light test, and areas dominated by native plant communities are avoided. The treatment area would be as small as possible given the objectives of the CMT. To minimize the biomass of plants killed by ultraviolet light treatment and the consequent release of nutrients that could stimulate HABs, an initial round of ultraviolet light treatment would be conducted in the spring to stunt plant growth so that plants would only be a few feet tall when they are treated again in the summer. WQ-5a, WQ-6a, and WQ-7a:			

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce oxygen depletion and reduce the release of TP and TN from macrophytes at the test sites. Herbicide applications would occur in the late spring when target weed species are in their early stages of growth and plant biomass is minimal, and the timing would be adjusted based on pre-application macrophyte surveys. This timing is expected to minimize the biomass of decaying vegetation, mitigating the effects of oxygen depletion and nutrient release that could occur from dieback of mature plants. Similarly, ultraviolet light applications would include an early-season treatment to stunt plant growth, reducing the decaying biovolume that could contribute to reduced DO, TP, and TN in the summer. Effects			

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
would also be mitigated by the limited size of test sites. The timing of the Proposed application is associated with flow of water from Lake Tahoe to Tahoe Keys lagoons as specified in NPDES Order R6T-2022-00XX, prohibition III.H, and the early stages of plant growth NPDES Order R6T-2022–00XX, section I and III. B. Pre-treatment plant monitoring is required to select final treatment NPDES Order R6T-2022–00XX, section VI.c.4			
EH-6b, WQ-5b Aeration: EH-6b: Aeration technologies such as LFA would be implemented at each herbicide test site after target aquatic weeds die back from the herbicide application. Aeration during plant decomposition would increase aerobic microbial	Aeration systems would be deployed following herbicide treatments at test sites if the need is identified through real-time DO monitoring, and their continued operation would also be based on monitoring results. The aeration systems could be continually operated until		Dissolved Oxygen (DO) monitoring requirements are described below in Section 3.0 Water Quality Parameters. TKPOA must report if the aeration systems were implemented as part of the

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
degradation and reduce the risk of HABs by breaking up thermal stratification, reducing near-surface water temperature, and stabilizing pH conditions. The aeration systems would be continually operated until herbicide active ingredients and degradants are no longer detected above background concentrations. WQ5b : LFA or other aeration systems would be deployed in herbicide test sites after plant dieback to increase aerobic microbial degradation and offset the potential for BOD from plant decomposition that could cause low DO impacts. If real-time monitoring indicated that DO was not meeting permit requirements at an ultraviolet light test site, an LFA system would be deployed to aerate during the period of plant decay and ensure that DO impacts were not significant.	herbicide active ingredients and degradants are no longer detected above background concentrations, and aeration could also continue through the summer and early fall as needed to reduce oxygen depletion from plant decay at UV-C light or herbicide test sites. TKPOA must report to the Water Board if aeration systems are implemented.		annual reporting required in Section 7.0 of this MMRP.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
Required in the NPDES Order R6T-2022-00XX, Section VI.C.3.f			
EH-6c Bentonite Clay with Lanthanum: If HABs occur at a test site in response to phosphorus released during the plant decomposition that is expected to follow dieback from herbicide or UV-C light treatments, a bentonite clay product containing lanthanum (e.g., Phoslock) could be used to control the cyanobacteria. Lanthanum is a rare earth mineral with a strong affinity to bind with phosphorus. The product would be applied to the water surface at the test site where it would strip the water column of available phosphorus molecules while it settles to the bottom. The phosphorus would remain bound in the surface sediments and unavailable for growth of cyanobacteria or other	Weed control test sites would be observed daily for signs of HABs, samples would be collected for expedited analysis of cyanobacteria and cyanotoxins within one day after a HABs observation, and bentonite clay/lanthanum treatments would be implemented within one day after laboratory confirmation of HABs at a weed control test site.		Monitoring frequency and reporting as specified in NPDES Order R6- 2022-00XX in the Monitoring and Reporting Program Table E-2.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
phytoplankton, effectively starving the HAB of an essential nutrient. Required in in NPDES Order R6- 2022-00XX in Section VII.			
WQ-1 Real-Time Temperature Monitoring and Adjustments to Treatment Rates: Real-time temperature monitoring during the implementation of ultraviolet light testing or injection of hot water under bottom barriers would be used to determine whether the rates of ultraviolet light application or injection of hot water under barriers would need to be reduced.	Real-time monitoring of temperature would be performed at the beginning of UV-C light to evaluate whether any adjustments were necessary. Monitoring and adjustments to treatment rates would continue as needed throughout testing of these weed control methods.		Temperature monitoring is required and described below in Section 3.0 Water Quality Parameters of this MMRP.
WQ-2a Real-Time Turbidity Monitoring and Adjustments to Practices: Divers would minimize sediment disturbance where employed in Group B activities (hand-pulling of weeds or removal of bottom	Real-time turbidity measurements would be performed throughout the implementation of sediment disturbing activities in the lagoons, including during the beginning of each activity and following any adjustments to in-		Turbidity monitoring is required and described below in Section 2.0 Turbidity Monitoring.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
barriers) because underwater visibility is necessary to carry out the work, and work would have to cease if the water became turbid. Turbidity monitoring would be conducted in association with these activities, and if permit limits could be exceeded, the methods or pace of bottom barrier removal or other activities would be adjusted to achieve compliance with permit limits for turbidity.	water work to confirm compliance with turbidity limits.		
WQ-4 Real-Time pH Monitoring and Adjustments to Treatment Rates: If real-time monitoring of pH indicates that permit limits are exceeded, herbicide rates would be adjusted until compliance with permit limits for pH is demonstrated.	Real-time pH monitoring would be performed during the beginning of herbicide treatments at each test site and following any adjustments to treatment rates to confirm compliance with pH limits.		Monitoring for pH is required and described below in Section 3.0 Water Quality Parameters.
AQU-1 Effects on Not-Target Aquatic Macrophyte Species:	Macrophyte surveys would be conducted in the spring before		Monitoring for macrophytes is required and described below in

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
Spring macrophyte surveys would be used as a basis to adjust testing site boundaries to better target dense beds of target species and avoid native plant communities. Pre-treatment plant monitoring is required to select final treatment NPDES Order R6T-2022–00XX, section VI.C.4	the start of aquatic weed control methods testing.		Section 5.0 Project Field Surveys and Reports.
MM-BIO-1 Field Reconnaissance and Monitoring: Prior to initiating the test program, TKPOA will conduct a pre-test field reconnaissance of potentially affected terrestrial, riparian, and aquatic (benthic and littoral zones), habitat and species. This will include the test sites and buffer zones appropriate to each potentially affected species. The occurrence of any sensitive or listed species and/or habitat will be recorded. If sensitive receptors are observed, an evaluation will be made as to the potential impacts. If direct or indirect	A pre-CMT field reconnaissance will be completed by TKPOA. If requested by USFWS or CDFW, monitoring may include field biologist monitoring of potential impacts to special-status species with provisions for potential work stoppages and additional agency consultation on actions to avoid or mitigate those impacts.		Monitoring and surveying for terrestrial, riparian, and aquatic (benthic and littoral zones) habitat and species is required and described below in Section 5.0 Project Field Surveys and Reports.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
impacts are possible, coordination will be initiated with the appropriate federal (USFWS) or state (CDFW) agency to determine further mitigation to avoid impacts. Examples of mitigation measures could include environmental tailboards prior to the start of work, the establishment of exclusionary zones (i.e., around active nests), and/or assigning biological field monitors with stop work authority if impacts to receptors are possible. Should work stop based on discovery of sensitive or listed species, TKPOA will consult with appropriate agencies to determine next steps prior to work restarting.			
MM-BIO-2: Routine monitoring of the ecotonal areas within Lake Tallac outside and adjacent to the herbicide treatment areas will be performed during the duration of the Proposed Project.	Routine annual monitoring of the ecotonal areas within Lake Tallac outside and adjacent to the herbicide treatment areas would be performed throughout the duration of the CMT.		Monitoring and surveying for terrestrial, riparian, and aquatic (benthic and littoral zones) habitat and species is required and described below in Section

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
	Monitoring would record cover and composition of native and non-native plant species within the ecotonal area. As the ecotonal areas are often portions of landowners' lakeshore, observations on plantings and removals outside of CMT scope of work would be noted. For consistency, plots may be established with the cooperation of landowners to control the number of variables that may be influencing ecotonal plant growth.		5.0 Project Field Surveys and Reports.
CR-1 Traditional Native American Resources and Values: On November 15, 2018, the United Auburn Indian Community provided a written request for consultation and recommendations for mitigation measures. These measures included an Unanticipated Discovery Plan, Awareness Training for workers, and an	TKPOA must report whether workers received awareness training, whether the Tribal Cultural Resources Awareness brochure was included as part of that training, and whether an Unanticipated Discovery Plan was implemented.		TKPOA must report whether workers received awareness training, whether the Tribal Cultural Resources Awareness brochure was included as part of that training, and whether an Unanticipated Discovery Plan was implemented.

MITIGATION MONITORING AND REPORTING SUMMARY TABLE

Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
associated Tribal Cultural Resources Awareness brochure to be included in the Proposed Project Mitigation Monitoring Plan. The Water Board agreed to include the Tribe's recommended measures in the MMRP, as further described in section 4.0 of this MMRP.			

THEREFORE, BE IT RESOLVED THAT: The Water Board pursuant to California Water Code section 13267 requires TKPOA to monitor and submit reports as specified below. The requirements of this Order may be revised by the Executive Officer.

1.0 Rhodamine WT Dye and Contingency Monitoring

TKPOA must monitor for Rhodamine WT dye with the use of field equipment such as a fluorometer equipped with a continuous flow-through cuvette. The monitoring locations are shown in Figure 1 and monitoring frequency is listed below in Table 1.

Figure 1 shows the CMT sites, compliance monitoring locations, contingency monitoring locations, and the locations of double turbidity curtains in West Channel and the Tahoe Keys Lagoons**.**

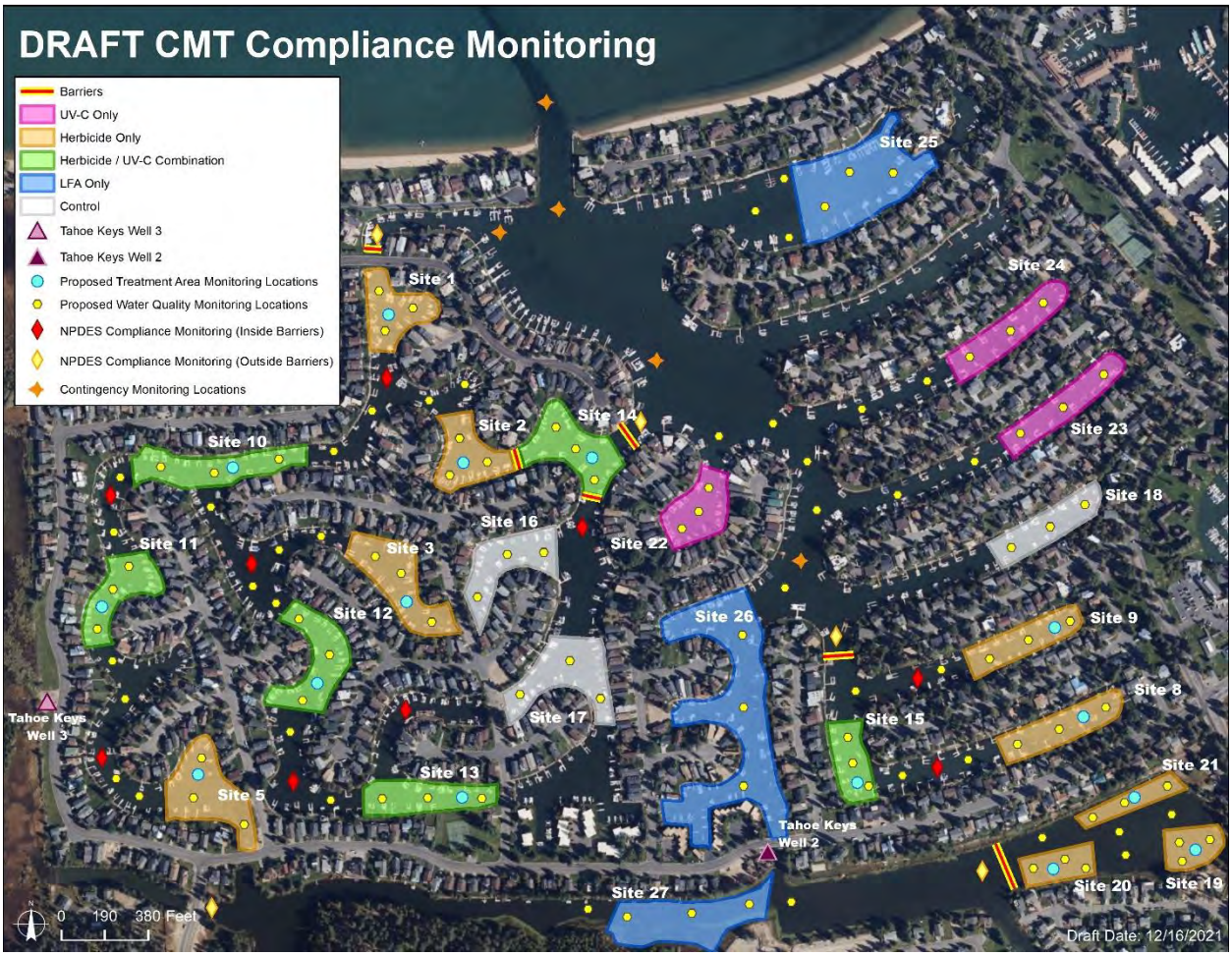

Figure 1 - Rhodamine WT dye compliance and contingency monitoring sites

Table 1 - Rhodamine WT Dye monitoring

Map indicator	**Field Fluorometer** **(real time detection)**	**Monitoring and Analysis by an EPA Method or Standard Method for Endothall, Triclopyr**
Red diamond	Three times per week	See NPDES permit requirements, as adopted by the Water Board
Yellow diamond	every other day (48hrs)	See NPDES permit requirements as adopted by the Water Board
Orange Star	Upon a detection of Rhodamine WT dye at any yellow diamond location	See NPDES permit requirements as adopted by the Water Board

If field fluorometer screening indicates a detection of Rhodamine WT dye outside of a double turbidity curtain, at a yellow diamond monitoring location, then a sample for herbicide active ingredients will be collected on the day of detection at the location where the Rhodamine WT dye was detected. Contingency Monitoring Locations inside the West Channel will be sampled at the closest monitoring location designated by an orange star on Figure 1, near the location of the Rhodamine WT dye detections. The samples will be sent to a certified laboratory for herbicide analysis on a 24-hour rush turnaround request. TKPOA will notify the Water Board within 24 hours of collecting the sample to provide information regarding the status. If herbicide active ingredients are detected at monitoring locations designated by the orange stars on Figure 1, additional monitoring will be conducted at the adjacent monitoring location designated by an orange star and as necessary, at the additional Contingency Monitoring Locations in Lake Tahoe shown on Figure 2. The sampling will continue at 7-day intervals until analytical results for herbicides or degradants are non-detect or below receiving water limits for a minimum of two consecutive samples collected at a minimum of 48 hours apart.

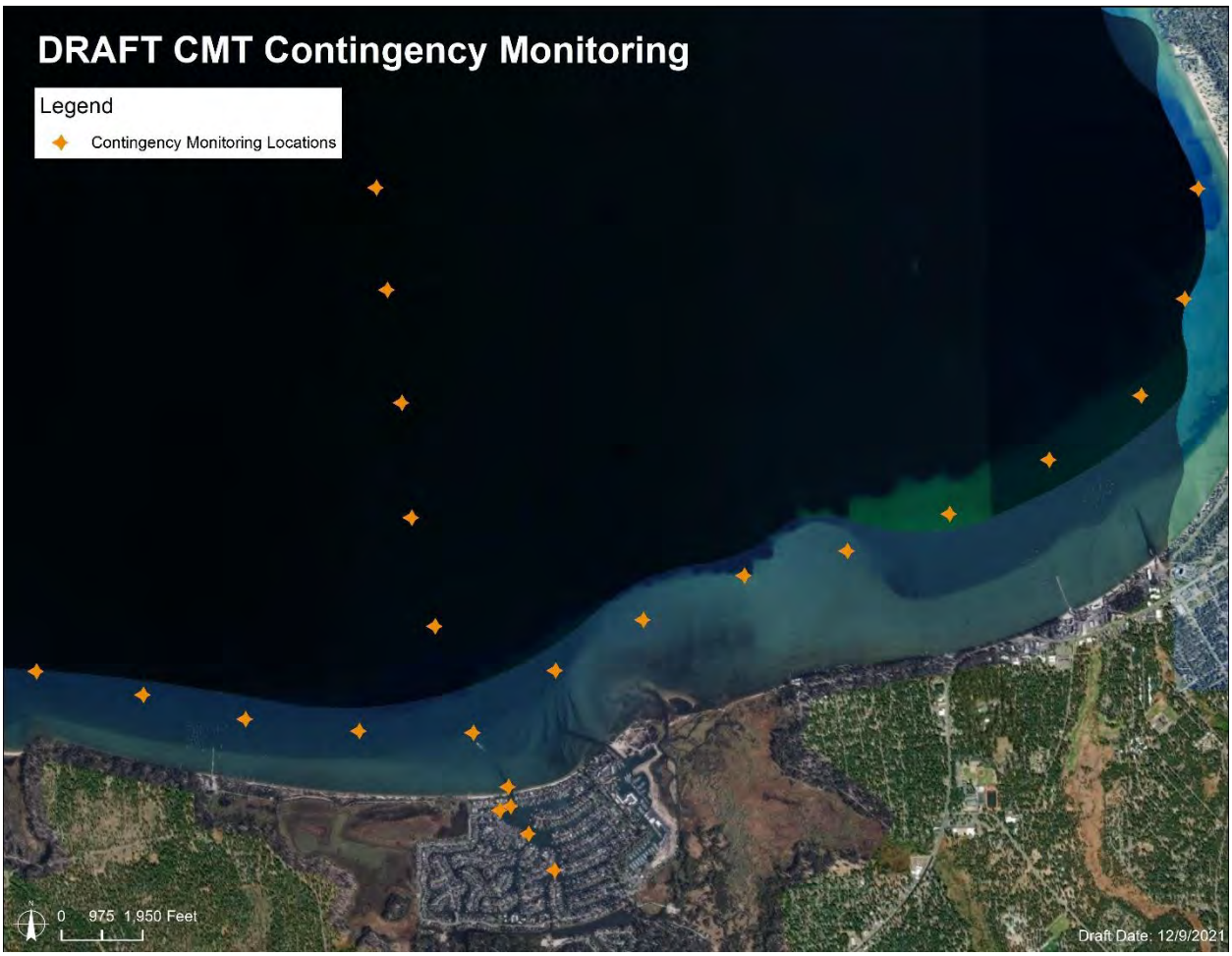

Figure 2 -Contingency Monitoring Locations in Lake Tahoe

2.0 Turbidity Monitoring

Turbidity monitoring will be done in conjunction with the following treatment activities: aquatic herbicide application, installation and removal of turbidity curtains, installation and removal of Laminar Flow Aeration (LFA) or other aeration devices, in the use of lanthanum modified clay, and the installation and removal of bottom barriers.

2.1 The following turbidity monitoring must be done either by a calibrated hand-held turbidity field meter, continuous data logger, or visually from the immediate area:

2.1.1 Grab samples at the conclusion of the installation within 1-hour and at 24 hours if concentrations are elevated.

2.1.2 Visually monitor the surface water and the water column immediately surrounding the curtains for increases in turbidity. If an increase in turbidity is observed due to malfunction of the turbidity curtain, then activities (installation or removal) must cease until the curtain is properly fixed and/or adjusted. Turbidity must be measured using either a calibrated hand-held turbidity field meter or recorded with a continuous data logger.

2.2 Turbidity monitoring must occur for all of the following Group B activities: bottom barrier application, diver assisted hand pulling, or diver assisted suction dredging sometimes referred to as spot suction. During these activities, turbidity monitoring must be done either by a calibrated hand-held turbidity field meter or a continuous data logger.

2.2.1 During Installation and removal of bottom barriers. Samples must be collected no further than 2 feet from the site of disturbance. Grab samples must be collected at the conclusion of the installation, within 1-hour, and at 24 hours if concentrations are elevated.

2.2.2 During diver assisted hand pulling, TKPOA must measure turbidity prior to start, middle (12 pm) and end of each workday during CMT Year 2 and 3.

2.2.3 TKPOA must Visually inspect the surface water and immediate water column surrounding the turbidity curtains or project activity area. If a visual increase appears to be occurring, TKPOA must conduct testing where samples are collected no further than 2 feet from the site of disturbance.

3.0 Water Quality Parameters

Water quality monitoring and measurements will be conducted at each CMT treatment location and the control sites. The water quality parameters to be measured and reported are dissolved oxygen (DO), pH, and temperature. The water quality monitoring and measurements must be conducted either by using a calibrated continuous water quality data logging device or other hand-held multiparameter meter designed to measure the water quality parameters.

Continuous water quality monitoring measurements for DO, pH, and temperature must be reported as daily averages. The first locations to be monitored must be recorded and some field marking used to ensure that all continued monitoring will be at that same location. If continuous data loggers are not used, monitoring and measurements will be done 3 days each week (typically Monday, Wednesday, Friday). Measurements will be taken at a minimum of one location outside the treatment site and up to three locations within each treatment site (1 middle of the treatment area, 2 near shore) as shown in Figure 1. The measurements must be in one of the following two manners: 1) taken from near the surface, mid-depth and near the bottom; or 2) if only one measurement can be made it will be at mid-depth, and the collection of data should be done between the hours of 11 AM and 2 PM.

Measurements must be made pretreatment (within one week before treatments), 72 hours post treatment, and will continue for up to 30 days after application of aquatic herbicides. TKPOA must record the location of the measurements and provide the location and measurements in an annual report.

The following are additional minimum monitoring requirements for DO, pH, and temperature measurements that must be conducted per treatment area and control site at the locations shown in Figure 1, above:

3.1 For Herbicide Only Treatment Areas, monitoring must start at 3 days after treatment (DAT). Measurements must be collected three times weekly and continue through at least 30 DAT. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November).

3.2 For Integrated Herbicide/UV-C Light Treatment Areas, monitoring must start at 3 DAT. Measurements must be collected three times weekly and continue through at least 30 DAT. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November). Water Board staff must be notified within 24 hours of preliminary indication if temperature readings at the treatment sites are increasing in comparison to control sites.

3.3 For UV-C Light Only Treatment Areas, monitoring must start at 3 DAT and continue until 60 DAT. Measurements must be collected three times weekly, during any treatment cycle and for up to 21 DAT. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November). Water Board staff must be notified within 24 hours of preliminary indication if the temperature readings at the treatment sites are increasing in comparison to control sites.

3.4 For the control sites, monitoring must be prior to any herbicide treatment and must begin 3 DAT and continue through 21 DAT of the last treatment of any kind. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November).

3.5 For LFA only Treatment Areas, monitoring must be completed from April through November. Monitoring data and related measurements must be collected weekly.

4.0 Cultural Resource Awareness and Training

On November 15, 2018, the United Auburn Indian Community provided a written request for consultation. The United Auburn Indian Community provided a description of the preferred mitigation measures for the inadvertent discovery of Tribal Cultural Resources, Worker Environmental Awareness Program (WEAP) training and the associated worker awareness brochure and requested that these measures be incorporated into the MMRP. As agreed by the Water Board, Section 4.1 describes the United Auburn Indian Community's preferred measures for the protection of cultural resources.

4.1 Awareness Training and Inadvertent Discoveries Measures Requested by the United Auburn Indian Community

The Unanticipated Discovery Plan should include guidelines that a qualified cultural resources specialist, in conjunction with Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes, should assess the significance of any unanticipated finds and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment that preserves

or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with traditionally and culturally affiliated Native American Tribes regarding mitigation should occur.

Awareness Training for workers should be conducted in coordination with traditionally and culturally affiliated Native American Tribes. The Proposed Project proponent should develop and administer a worker training program for all personnel involved in the CMT. The training would include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training would outline what to do and whom to contact if any potential resources or artifacts are encountered. The training should also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans.

The Associated Tribal Cultural Resources Awareness brochure was developed by the United Auburn Indian Community and provides guidelines for protection measures and protocols for unanticipated finds or the discovery of human remains, shows examples of potential cultural resources, and encourages respect for Native American Culture. The brochure would be provided in conjunction with Awareness Training.

If buried cultural resources are discovered during the course of construction activities, construction operations shall immediately stop in the vicinity of the find and the California State Historic Preservation Office, shall be notified. At the discretion of the California State Historic Preservation Office, the undertaking may proceed provided reasonable efforts are implemented to minimize harm to the resource until a determination of significance is made. Cultural resources could consist of, but not be limited to, artifacts of stone, bone, wood, shell, or other materials, or features, including hearths, structural remains, or dumps. If human burials are encountered, all work in the area will stop immediately and the County Coroner shall be notified. If the remains are determined to be Native American in origin, the State Native American Heritage Commission and the appropriate Native American organization, pursuant to the requirements of the Native American Graves Protection and Repatriation Act of 1990 Section 3(d), shall be notified. Following notification, and upon certification that notification has been received, the undertaking may resume after 30 days.

5.0 Project Field Surveys and Reports

The following reports and surveys are required to be conducted prior to implementation of project activities for each CMT year:

5.1 A survey and summary report of the pre-test field reconnaissance for potentially affected terrestrial, riparian, and aquatic (benthic and littoral zones), habitat and species must include the results of the survey and a decision summary for the delineation of the treatment areas. A pre-project aquatic macrophyte survey must be conducted in the spring prior to treatment to characterize and identify target species areas. The results must be compiled and analyzed into a report prior to the use of aquatic herbicides.

5.2 If sensitive receptors are observed, an evaluation must be made as to the potential impacts and coordination would be initiated with the appropriate federal (USFWS) or state (CDFW) agency to determine further actions to avoid impacts.

5.3 Routine monitoring of the ecotonal areas must occur at an annual frequency. A survey and summary report of the routine monitoring of the ecotonal areas within Lake Tallac outside and adjacent to the herbicide treatment areas is required at the end of CMT year 1.

6.0 Adverse Conditions Reporting

Where monitoring data suggests an adverse condition may be occurring, TKPOA must notify the Water Board within 24 hours by email and provide preliminary data indicating a potential adverse condition. Examples of monitoring data that could indicate a condition requiring notification of the Water Board include:

6.1 A Harmful Algal Bloom (HAB) that appears to be caused by any CMT treatment.

6.2 Rhodamine WT dye testing triggers an analysis for pesticide sampling.

6.3 The dissolved oxygen in the water column is less than or equal to 5 mg/L and is below the control site's average. Average data must include 7-days of continuous data or three days of hand-held water quality meter measurements collected at varying depths or mid-depth sampling locations.

6.4 The temperature data collected in the UV-C light treated sites become elevated over control sites.

7.0 Reporting

TKPOA must submit an Annual Report containing the monitoring data collected in compliance with section 1.0 throughsection 5.0 of this Order and the reporting requirements specified in this section. The **Annual Report is due March 1**, following the previous CMT year treatment activities.

The Annual Report must also include a statement documenting the implementation of the following mitigation measures and resource protection measures:

7.1. Reporting of EH-1 Applicator Qualifications Measures. TKPOA must provide documentation of the selection and performance of the herbicide application by a QAL holder in the Annual Report following aquatic herbicide application.

7.2 Reporting of EH-2, EH-3a, EH-4 Spill Prevention and Response Plan Measure. TKPOA must provide a description of the spill control BMPs implemented during herbicide application in the Annual Report submitted to the Water Board following aquatic herbicide application.

7.3 Reporting of EH-3b Dye Tracing Measure. If herbicides are detected in nearby wells, TKPOA must provide a description of the contingency plans implemented in

the Annual Report submitted to the Water Board following aquatic herbicide application.

7.4 Reporting of EH-3c Well monitoring and contingencies. If herbicides are detected in nearby wells, TKPOA must provide documentation of the contingency plans implemented in the Annual Report submitted to the Water Board following aquatic herbicide application.

7.5 Reporting of EH-6b, WQ-5b Aeration Measure. TKPOA must report if aeration systems were implemented in Annual Reports submitted to the Water Board.

7.6 Reporting of CR-1 Traditional Native American Resources and Values Measure. TKPOA must report whether workers received awareness training, whether the Tribal Cultural Resources Awareness brochure was included as part of that training, and whether an Unanticipated Discovery Plan was implemented in Annual Reports submitted to the Water Board.

I, Michael R. Plaziak, Executive Officer; do hereby certify that this Order is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on January __, 2022.

_____ Date _____

MICHAEL R. PLAZIAK
EXECUTIVE OFFICER

ENCLOSURE 5

Summary of Comments and Responses

on the September 15, 2021

ORDER NO. R6T-2022-[PROPOSED]
NPDES PERMIT NO. CAXXXXXXX
WASTE DISCHARGE REQUIREMENTS AND
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FOR
TAHOE KEYS PROPERTY OWNERS ASSOCIATION
TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST

and the September 15, 2021

RESOLUTION NO. R6T-2022-XXXX
GRANTING AN EXEMPTION TO THE AQUATIC PESTICIDE DISCHARGE PROHIBITION IN THE
WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION
FOR
THE CONTROL METHODS TEST OF HERBICIDES AND OTHER TECHNIQUES TO REDUCE AQUATIC INVASIVE PLANTS IN THE TAHOE KEYS LAGOONS
FOR THE TAHOE KEYS PROPERTY OWNERS' ASSOCIATION,
CITY OF SOUTH LAKE TAHOE

and the September 15, 2021

MITIGATION MONITORING AND REPORTING PROGRAM NO. R6T- 0022- 00XX
THE CONTROL METHODS TEST OF HERBICIDES AND OTHER TECHNIQUES TO REDUCE AQUATIC INVASIVE PLANTS IN THE TAHOE KEYS LAGOONS
FOR THE TAHOE KEYS PROPERTY OWNERS' ASSOCIATION,
SOUTH LAKE TAHOE

Comment Deadline: at 1700 on November 1, 2021

Release Date: December 29, 2021

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Explanation of Categories, Summary Comments, and Summary Responses

The Water Board response to comments (RTC) are broken down by categories and subcategories. Each Summary Comment summarizes comments within a subcategory. The Summary Response is the Water Board response to the Summary Comment. For further understanding on how to read or navigate this RTC the reader is expected to read the following section.

Categories

Comments are sorted into 13 categories. Each category has a Category Number and Title. For example, “Category 4 –Antidegradation” is the fourth category, and contains comments related to the antidegradation analysis described in the Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) permit. Subcategories are unlabeled but are groups or individual comments related to the category and a common topic or theme. The summary comments and summary response are related to the subcategory but references to other subcategories are used throughout the RTC.

Comment Numbering

Each letter received containing at least one comment was recorded by the letter ID and the Comment number. Each letter received a unique letter ID and was recorded in sequence of review and has no impact on the level of importance or impacts on the permit documents. The letters were read and broken up by unique comments, assigned a unique Comment Number, and assigned to a category. For example, “Comment Number 383.04” is letter ID 383 and the comment was the fourth comment within the letter. Most comment letters included less than 100 unique comments and were assigned Comment Numbers that were in the 100th decimal. The few comment letters with more than 100 comments were assigned Comment Numbers using the 1000th decimal point.

Summary Comments

Summary Comments either summarized a group of individual comments with a common thread of thought or are a direct copy of the individual comment. Summary Comments are unique to each subcategory and do not reflect the views of the Water Board. The unique comments summarized by the Summary Comment are in a table below within each category. The Summary Comments grouped unique comments by category and by subcategory.

Summary Responses

Summary Responses are the official Water Board Response to Comments for all comments grouped within a category. The Summary Response is in response to the Summary Comment and not to individual comments.

List of Abbreviations (this list is not comprehensive)

Abbreviation	Definition
APAP	Aquatic Pesticide Application Plan
AIP	Aquatic Invasive Plants
AIS	Aquatic Invasive Species
BMP	Best Management Practices
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CMT	Tahoe Keys Lagoons Weed Control Methods Test
CWA	Clean Water Act
DNQ	Detected, but Not Quantified
EIR	Environmental Impact Report
FEIR/S	Final Environmental Impact Report/Environmental Impact Statement
HAB	Harmful Algal Bloom
LFA	Laminar Flow Aeration
LMCAP	Lanthanum-Modified Clay Application Plan
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
MRP	Monitoring and Reporting Program
MMRP	Mitigation, Monitoring, and Reporting Program
MDEL	Maximum Daily Effluent Limitation
MGD	Million Gallons per Day
ND	Not Detected
NSF	National Sanitation Foundation
NPDES	National Pollutant Discharge Elimination System
ROWD	Report of Waste Discharge
RTC	Response to Comments
SMCL	Secondary Maximum Contaminant Level
TKPOA	Tahoe Keys Property Owners Association
TRPA	Tahoe Regional Protection Agency
TMDL	Total Maximum Daily Load
U.S. EPA	United States Environmental Protection Agency
UV-C	Ultraviolet light
Water Board	Lahontan Regional Water Quality Control Board
Basin Plan	Water Quality Control Plan for the Lahontan Region
WDR	Waste Discharge Requirements
WLA	Waste Load Allocation

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162	Kathy Gussow
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256	Kelli McAlister
81	Ken Pusateri
257	Kenneth C. Zurek
152	Kenneth R. Williams
111	Kerry Harris
117	Kevin and Catherine Kornegay
258	Kevin Hubbard
259	Kim Eberhard
260	Kimberly Harkins
328	Kirk Wooldridge
330	Kirk Woolridge
5	Kirt Willard
331	Kris Cologna

261	L. A. Moran
73	Lakeside Park Association and Lakeside Park Mutual Water Company
92	Laura Cefalu
159	Laurelee Barnes
263	Lauri Kemper
262	League to Save Lake Tahoe, Laura Patten
264	Leann Dupre
80	Lee Eaton
265	Lee Mei
149	Leilani Connolly
37	Leland and Celia Douglas
22	Leland Douglas
56	Leon and Patricia Malmed
101	Leslie and Roy Adams
122	Leslie Warc
126	Lilia Sanz
35	Linda and Stephen Gill
61	Linda Murphy
3	Linda Wunder
266	Lisa Gianoli
267	Lisa Lee & Steve Akacsos
268	Lisa Vergel de Dios
332	Lois Bendient
269	Loretta Stein
65	Lori Aldrete
270	Lori Krumrei
333	Louise Martin Kobellas
271	Lynne Barrett
272	Madonna Dunbar, Executive Director, Tahoe Water Suppliers Association
273	Marc Le Poullouin and Mara Le Poullouin Yarp
304	Marco Perrella
274	Margaret Kortes
138	Marilyn Sunia
160	Mark and Deborah Knisley
31	Mark and Sherri Acri
89	Mark Houghton-Berry
48	Martin Caxton
42	Mary Fay Pinnow
275	Mary Seeley
334	Matt Cologna
172	Matt Palacio

276	Matt Valentine
277	Matthew Whetton
278	Maz Zabaneh
130	Megan Mangiaracina
373	Mel Meyers
279	Michael & Gayle O'Brien
96	Michael & Margaret Rhymes
335	Michael Keller
102	Michael McGinnis
123	Michael Paskow
280	Michael Walton
374	Michelle Pandori
100	Michelle Wollmann
50	Mike and Carol Taylor
95	Mike Connolly
79	Mike Forster
171	Mike Kelley
281	Mike Kohl
140	Mike Sukau
173	Miriam Shellberg
282	Mohammad Rezamand
139	Morgan and Marsha Petiti
337	Mr. and Mrs. Steve Bridges
24	N/A
155	Name Annoymous
338	Nancy H Appelblatt
284	Nate Mors
25	Nina Belcher
36	Pablo Ortega
339	Pat and Paul Klempner
52	Pat Disney
340	Patricia Wong
341	Pete Wolcott
343	Peter Grant
344	Peter Wolcott
285	Phil Mosby
286	Phil Moulton and Debbie Brown
345	Phil Weidinger
375	Rafael Campos Jr
378	Randall and Denise Ferre
287	Randall E. Lambach
13	Rene and Phyllis Scribe

39	Richard and JoAnne Beck
346	Richard McHenry
54	Richard Moorhouse
88	Richard Simon
289	Rick Wood
290	Robert & Stephanie Reinhardt
347	Robert and Michele Toaz
379	Robert Lober
2	Robert Pavese
15	Robert Sari
349	Robert Vidra
380	Robin Sprague-Abbott
381	Ron Hoffman
118	Ronald Halleran
168	Ronda Tycer
58	Roy and Leslie Adams
291	Sam Parmar
350	Samarjubayli
23	Sandy McGill
292	Sanford Weber
351	Scott and Michele Cable
293	Scott Litteral
352	Scott Peifer
4	Sean Ward
113	Sherri Acri
119	Sherri and Randy Glein
353	Stacy Phillips
294	Stephen and Tammy Carmassi
296	Stephen Oaks
297	Steve Klukert
299	Steve Lisenby
300	Steve Wallen
45	Stu Roberson
354	Sudeep Chandra
301	Susan Ballman
34	Susan Chandler
93	Susan Wolcott
29	Suzanne McCarthy
302	Suzanne McCarthy
305	Tahoe Area Group of the Sierra Club
329	Tahoe Keys POA Board of Directors
164	Tamera Booth

170	Terri Jinkins
303	Terry Alexander
355	Terry Timi Fisher
87	Tim Harris
341	TKPOA
187	TKPOA Board of Directors
163	Tobi Tyler
356	Tom Banks
165	Tom Barnes
382	Tom Cologna
306	Tom Scott
307	Tom Spencer
94	Tracey Buescher
336	TRCD
384	Trish Friedman
133	Troy Alexander
99	Unidentified Commenter
386	U.S. EPA, Region 9, Sunny Elliott
193	Victor Perrella
135	Wallace Hayes, Harald Oyen, Nancy Svennungsen
357	Warren and Carolanne House
40	Warren Kaplan
358	Wayne and Maureen Lavengood
167	Wes Smith
359	Will Phillips
125	William Fisher
38	William Green
77	William Vollenhals
308	Woody Miller
360	Yolanda Knaak

Category 1 General Statement of Support Response

Summary Comment 1.1

Commenters shared personal stories about time spent at Lake Tahoe and the importance of protecting its water quality and beneficial uses. Many comments supported the proposed project in its entirety including the testing of herbicides because the CMT offers the best mix of methodologies to find an effective solution for aquatic invasive weeds in the Tahoe Keys and will ultimately reduce the risk of further spread of aquatic invasive weeds to Lake Tahoe.

Commenters also requested there be a reliance on science and data to make the best decisions for the aquatic weed infestation. It was requested that TKPOA take advantage of the isolation of the fingers of the lagoon and the low water levels to increase the effectiveness of treating the weeds.

There is concern the infestation is spreading to Lake Tahoe proper and the problem has grown worse over time.

Summary Response 1.1

The Lahontan Water Quality Control Board (Water Board) is a regulatory and permitting agency responsible for protecting water quality along the eastern portions of the Sierra Nevada Mountain range to include the California portions of Lake Tahoe. In accordance with the Region-wide and Unit/Area-Specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan), unless a specific exemption is granted in writing by the Lahontan Water Board, the application of pesticides to surface or ground waters is prohibited in the Lahontan Region. The Lahontan Water Board will consider whether to adopt a resolution granting an exemption to this prohibition for the application of two aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac. The Water Board will evaluate the exemption request and determine if it satisfies exemption criteria that require project plans to incorporate best management practices to limit adverse impacts to the shortest time possible while achieving project success. If the Tahoe Keys Lagoons Weed Control Methods Test (CMT) is provided an exemption it will be the first non-time sensitive and non-emergency exemption granted in the Region.

The purpose of the CMT is to test approved aquatic pesticides in conjunction with non-chemical aquatic plant treatments to evaluate efficacies of methods intended to eradicate the target weeds degrading a wide variety of beneficial uses of the Tahoe Keys lagoons and threaten Lake Tahoe’s water quality and ecology.

The Water Board will consider whether to certify an Environmental Impact Report, grant an exemption to prohibition on aquatic pesticides, issue a National Pollutant Discharge Elimination System (NPDES) permit, and adopt a Mitigation Monitoring and Reporting Program at the January 12 & 13, 2022 Water Board meeting.

Comment Table 1.1

Comment Number	Comment	Commenter
4.01	Please move forward with this proposed test process the lake has this issue not only in the keys but also throughout the whole lake and this test is a step in the right direction to help solve a Lake issue	Sean Ward
5.01	Please don't delay in approving the test.	Kirt Willard
5.02	This has been getting worse every year and needs to be dealt with in the most economical way.	Kirt Willard
5.03	I agree with all the other measures including laminar flow, ultra violet and bottom barriers where appropriate but I don't see them being as effective as herbicides.	Kirt Willard
9.01	I am writing you today to ask for your support for the herbicide testing for weed control around the lake. We in the Keys have been fighting a losing war against the evasive weed population for years. I believe we have demonstrated our commitment with financial and educational support of all the weed control methods currently available. It's now time to use carefully controlled herbicide to fight this out of control problem. Now, after years of debate, the weed problem has grown to devastating proportions. Please allow the herbicide testing to proceed.	John Chambers, Helen McQuaid
12.01	As a long time resident and homeowner, I'm asking that you support the testing of herbicides for the Tahoe Keys. Now is the time, the water level is very low and less herbicide would be necessary to control the weeds.	Chief McGill
19.01	The invasive weeds problem is a dire problem that affects the daily life of Tahoe Keys Homeowners and the public at large. It is dirty, dangerous to swimmers, and simply ruining the lake and watercraft. I plead with this committee that all experiments be done, including herbicides. At this point, whatever treatment could be a safe solution has to be tried. There is simply no other option!	Jay Grodzienski
20.01	The invasive weeds problem is a dire problem that affects the daily life of Tahoe Keys Homeowners and the public at large. It is dirty, dangerous to swimmers, and simply ruining the lake and watercraft. I plead with this committee that all experiments be done, including herbicides. At this point, whatever treatment could be a safe solution has to be tried. There is simply no other option!	Jay and Amy Grodzienski

Comment Number	Comment	Commenter
21.01	I purchased a home in the Keys and am saddened and disgraced as to what has become of its once beautiful water. I propose that we do WHATEVER it takes to clean our waterways from these invasive weeds including herbicide testing. I also volunteer to have whatever testing is proposed at my own home at {redacted} Drive. Please, this is too serious to dismiss ALL options.	Amy Grodzienski
23.01	I support the testing of herbicides for the Tahoe Keys invasive weeds. Water levels are low now it is a good time to proceed with hebicide weed control.	Sandy McGill
27.01	My husband and I have owned a home in the Tahoe Keys for over 20 years and have watched the invasive weeds worsen every year. The Tahoe Keys harvesters have not been able to keep up with the problem, and in addition our lagoons are now becoming toxic every summer. I believe we are at a tipping point. I have been educated and agree with Tahoe Keys and TRPA's collaborative effort and believe we need to implement the test treatments that they recommend , and then define a comprehensive solution to this problem.The time to act is now, we cannot afford to wait any longer.	Karen Marlin
32.01	We are in favor of CMT as a property owner and wondering why this method has taken so long to use as it was considered years ago and much money later!!	Roy and Leslie Adams
35.01	We support the Control Methods Test being considered for weed abatement/eradication in Tahoe Keys. It is our understanding that the herbicides have been successfully used in other places in the U.S. and have been approved by the EPA and other regulatory agencies. The creation of the Keys contributed to the problem and we as property owners must be a part of the solution	Linda and Stephen Gill
44.02	I support the proposed Control Methods Test (CMT) proposed by TKPOA, and currently being evaluated by the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency as part of the permitting process. As proposed, I believe the CMT is the best mix of methodology to truly analyze the safety, efficacy and cost of controlling the aquatic invasive plants in the Tahoe Keys.	Tom Spencer

Comment Number	Comment	Commenter
45.01	As a resident of Tahoe Keys, I have seen our weeds and algae problem grow significantly since arriving in 2010. This year was the worst with several algae blooms also developing within the weeds in September. We have harvested, we are testing UV treatment, and bottom barriers have been tested. We must do more and quickly as the problem is exacerbated by higher water temperatures and shallower water with our drought conditions. Please provide your support for the CNT Project Test and the use of herbicides to stop the growing spread of weeds into the lake.	Stu Roberson
47.01	Please proceed with the control test. Action needs to be taken NOW instead of just continuing to kick the can down the road. Few of those involved in the discussion / debate played any part in bringing this problem to Lake Tahoe but we all now have an obligation to remedy it. The use of herbicides has been proven safe and effective for decades and it's time to stop debating and start implementing a solution that embraces the indicated use of these solutions.	Barry Adelmann
48.01	Firstly I should state that neither my wife or I are US citizens but having been travelling to Tahoe from the UK in April each year (two previous years being the exception) for over 20 years or so our voices should be considered subsidary to Tahoe residents and US citizens. It is a big boast for us to come each year to the beauty and sunshine of Tahoe after 6 months of a UK winter. We love Tahoe but also support the environmental policies that seem to be balanced taking into account the needs to maintain the environment around Tahoe with the need of people not just in California, Nevada and the rest of the USA but also your international visitors. The only comment I would make is that it much easier to tackle this problem before it gets out of control and is reasonably constrained than allowing the weed to get firmly established. I also believe although far from ideal selective use of pesticides must be considered. Sometimes the end does justify the means. I am sure you are going to do a thorough test which will show the pros and cons of each option and I look forward to reading your results when they become available. As a final	Martin Caxton

Comment Number	Comment	Commenter
	comment the policies of organisations in the United States to consult and consider the opinions of "The People" is a beacon to how things should be done in a democracy.	
50.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year. Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides! It is my understanding that 2/3 of the lakes west of the Mississippi control milfoil weed with herbicides. Recently Dr. Anderson from UC Davis stated at a meeting of TKPOA home owners that water in the Sacramento River delta has been treated with herbicides and shipped to Los Angeles for drinking water for 50 years with no ill effects. Why are we wasting time on this issue? Is this another example of politics dominating science and common sense?	Mike and Carol Taylor
53.02	I have read the following documents re Tahoe Keys Lagoons, and recommend that they be finalized and approved:: 1. Tentative Resolution granting an Exemption to the Aquatic Pesticide Discharge Prohibition in the Water Quality Control Plan: 4 pages 2. Tentative Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit. 118 pages. 3. Mitigation Monitoring and Reporting for the Control Methods Test of Herbicides (MMRP). 23 pages. I have also read (among others): 4 Lahontan Water Board "Staff Report". 16 pages. Referred to in para. 10 of Tentative Resolution. On 19 October 2021, Scott Ferguson confirmed to me that this Staff Report is still current. 5. TKPOA letter dated April 30, 2021 re Updated BPE application, and Updated APAP. See 1.6.1.1 CMT Year 1 Proposed Treatment Method, at page 21. See Table 1: "List of Other Known California Sites Approved for Use of Proposed Aquatic Herbicides", at page 11	Albert Chandler
53.03	I am familiar with past and current efforts of TKPOA to deal with AIP. A variety of control methods have been employed: harvesting, ultraviolet light, laminar flow aeration, bubble curtain, diver hand-pulled, boat backup station, bottom barriers, and circulation system. These control methods have not been successful in reducing the AIS problems in the	Albert Chandler

Comment Number	Comment	Commenter
	Keys. TKPOA has proposed to supplement existing control methods (which will be continuing) with herbicides, under strict controls referred to as the Control Methods Test (CMT). The purpose of the CMT in Year-1 is to test the effectiveness of herbicides in combating weed growth. This should relieve concerns about duration of use of herbicides without strict control and monitoring. The herbicides which will be used have been chosen because they target the invasive aquatic weeds, allowing native species to survive. They have limited life, and will morph into harmless compounds and will not spread outside the Keys. See Table1: "Allowable and Proposed Herbicide Application Rates and Application Methods", at page 10 in Staff Report: Triclopyr. applied at 1 ppm. targets Eurasian Watermilfoil. half-life 5-10 days. within 21 days after application < .1 ppm. Endothall applied at 2 ppm. targets Curlyleaf pondweed, Eurasian Watermilfoil, and Coontail. half-life 3-7 days within 21 days after application, < .1 ppm The Project will be subject to strict controls and monitoring. The CMT is a 3-year program, but only uses herbicides in year 1, subject to extensions. If successful, it will be followed by a longer program approved by TRPA, LTSLT and Lahotan. The three tentative documents are professional in content. To my understanding, the past facts are correctly stated. I have attended the Open House on October 9, 2021 in person, and Town Hall Forum on October 21 in person. I have visited the Water Board office at 2501 Lake Tahoe Boulevard, SLT. I strongly recommend that the tentative documents be finalized and approved.	
56.01	We have been in the Tahoe Keys since 1989. The water in the lagoons has gotten worse every year, and the weeds must be controlled before the Lake is beyond saving. Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Leon and Patricia Malmed
60.01	I have been coming to my Keys home since 1965 when my mother Harriet Rainey purchased it. As a teacher for 35 years in Reno I have enjoyed its comfort and surroundings. My mother willed it for me, and I have been living here full time since 1983. I have been following the weed issue in our lagoons	Carra Rainey MacFarlane and John Johnck

Comment Number	Comment	Commenter
	since they first appeared in the 1970s. I also have studied all the written information I was able to on milfoil. To me the best research was begun by the U.C. Davis scientists on aquatic invasive plants, and is spot on accurate, and has been adopted by the EPA and various States for lakes all over the United States. Aquacides are used and sold commercially for milfoil and work without harming the native plants and aqualife in the local waters. If we had used these aquacides when they first appeared in the Keys, they never would have escaped into Lake Tahoe. Today a coalition of Environmental groups has joined Tahoe Keys in supporting the TAHOE KEYS HERBICIDE PROJECT SOLUTION. It's a no brainer. It works. It's safe. Doesn't kill fish. Doesn't harm lock lake native plants. Please approve the Tahoe Keys CRT permit, and the permit to use Herbicides to kill the milfoil.	
63.02	I support the proposed Control Methods Test (CMT) proposed by TKPOA, and currently being evaluated by the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency as part of the permitting process. As proposed, I believe the CMT is the best mix of methodology to truly analyze the safety, efficacy and cost of controlling the aquatic invasive plants in the Tahoe Keys.	Gina Thompson
63.04	Herbicides can be safely tested in the TKPOA lagoons, without risking contact with the main body of Lake Tahoe. This requires a physical separation of the herbicides until the testing shows no herbicide residual is present within the CMT area. This will be accomplished by: a) Following the process proposed within the CMT. b) Properly timing application of the herbicide to the CMT area (only during early season snow melt in-flow of lake water). c) Placement of a multilayer barrier of floating curtains isolating the CMT areas from other lagoon areas, providing daily monitoring (water tests) between the curtain layers to assure herbicide do not travel outside the barriers. These specific herbicides proposed in the tests have a long history of use in other water bodies in California and have not resulted in unintended	Gina Thompson

Comment Number	Comment	Commenter
	impacts to the aquatic ecosystem and so we have a reasonable expectation that there will be a level of success in reducing aquatic invasive plants resulting from these tests and informing our knowledge of controls for the future.	
66.01	My name is Clark McDonald and my Keys address is {redacted} where I have owned for 47 years. I used to swim in our lagoons where the water was as clear as our beautiful Lake Tahoe. No one would dare swim there now, but a possible solution is the allowance of herbicides to kill these terrible weeds. I hate to think of these weeds getting out into the lake beyond what they already have. Please support the Control Methods Test coming before your Board in January.	Clark McDonald
77.01	I have been a Tahoe Keys resident for 35 years and have seen the degradation of our water ways over the years. I remember when you could see the bottom of the lagoons. I am writing in support for the approval of a permit for CMT (controlled methods test) project. I believe herbicides are the only method that will rid the channels of the milfoil that has taken over but testing all the other methods is a good idea as well.	William Vollenhals
85.01	As a member of the Tahoe Keys Property Owners Association, I would like to encourage the Lahontan Regional Water Quality Control Board to approve the permit which includes herbicides, for proposed testing of new methods of weed control next year in the Tahoe Keys. We all love our blue lake and want to keep it clear and healthy for generations to come, which is why it is important to use all the technologies that are available to us to treat the weed problem. The use of herbicides needs to be part of the test to ensure that we bring to bear all the possible methodologies to fight invasive weeds. Herbicides have been proven to be effective and safe in other lakes across the country. There are ways to include herbicides in the test in the Tahoe canals in ways that makes it very unlikely that the herbicides are making contact with the main lake. Let's make sure that we take full advantage of all the arrows in our quiver when we execute the Control Methods Test next year. I hope we can count on your and the board's support.	Ed Crawford

Comment Number	Comment	Commenter
87.01	We strongly support the trials proposed by and the League to Save Lake Tahoe and the TKPOA to eliminate the burgeoning weed problem, and to prevent it from entering the Lake. Please approve the permit to conduct the tests as proposed, so we can make some progress on fixing this problem. We would love to see the tests start in May and the teams has spent countless hrs and trials to prepare this plan. Please approve as proposed.	Tim Harris
89.01	I am writing to express my strong support for the granting of the necessary permits for the proposed Control Methods test. As the owner of lakefront property in Rubicon Bay since 2008, and an avid paddleboarder in those waters, I have noticed with growing concern the gradual increase in the amount of vegetable matter that I see in the water, particularly in the days following severe wind events. The science has long been clear that the weed infestation problem in the Keys is the most significant (though not the only) such in the whole Lake, and it is therefore of extreme importance to move ahead as quickly as possible with rigorous testing of the best-available control methods. The exhaustive process of designing the proposed Control Methods test has clearly led to the identification of such methods, and the test therefore needs to be approved without any further delay.	Mark Houghton-Berry
95.01	Please do everything you can to approve a permit from Lahontan that will allow testing of herbicides to control the out of control invasive weeds in Tahoe Keys. The Keys has become a nursery for these weeds with serious consequences for Lake Tahoe Clarity	Mike Connolly
96.01	I believe the request by the Tahoe Keys Property Owners Association (TKPOA) is an honest and worthwhile attempt that will prevent the TKPOA lagoons turning the pristine Lake Tahoe into a weed swamp/jungle sometime in the future. My wife and I have seen the TKPOA expend a lot of money and labor trying to control the lagoon weeds the 38 years we have been TKPOA homeowners but the weed problem has only become worse. We are not boat owners but we are lovers of the lake and want it to remain pristine. We fear that unless a solution	Michael & Margaret Rhymes

Comment Number	Comment	Commenter
	is found soon the TKPOA homeowners will revolt to any more of their money being spent as it has in the past, which has all been to no avail. If they revolt, the weeds will then get into Lake Tahoe and the lake will become a weed swamp/jungle quagmire like the TKPOA lagoons presently are	
97.01	Please approve the Tahoe Keys permit for Controlled Method Tests project including the testing of herbicides. The health of both the Tahoe Keys and most importantly the whole Lake Tahoe depends on the ability to control the invasive weeds. The approval process seems to be taking way too long and the outcome not clear and as a dedicated and caring resident we would appreciate your approval to get moving forward on this, Thank you in advance for your approval of the plan and permit.	Andrea Harrison
101.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Leslie and Roy Adams
102.02	I support the proposed Control Methods Test (CMT) proposed by TKPOA, and currently being evaluated by the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency as part of the permitting process. As proposed, I believe the CMT is the best mix of methodology to truly analyze the safety, efficacy and cost of controlling the aquatic invasive plants in the Tahoe Keys.	Michael McGinnis
105.04	Herbicides can be safely tested in the TKPOA lagoons, without risking contact with the main body of Lake Tahoe. This requires a physical separation of the herbicides until the testing shows no herbicide residual is present within the CMT area. How could maintaining the separation be accomplished? a) By following the process proposed within the CMT b) By properly timing application of the herbicide to the CMT area (only during early season snow melt in-flow of lake water) c) By placement of a multilayer barrier of floating curtains isolating the CMT areas from other lagoon areas, providing daily monitoring (water tests)	Tom Spencer

Comment Number	Comment	Commenter
	between the curtain layers to assure herbicide does not travel outside the barriers.	
110.02	I support the proposed Control Methods Test (CMT) proposed by TKPOA, and currently being evaluated by the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency as part of the permitting process. As proposed, I believe the CMT is the best mix of methodology to truly analyze the safety, efficacy and cost of controlling the aquatic invasive plants in the Tahoe Keys.	Joshua Willard
110.04	Herbicides can be safely tested in the TKPOA lagoons, without risking contact with the main body of Lake Tahoe. This requires a physical separation of the herbicides until the testing shows no herbicide residual is present within the CMT area. How could maintaining the separation be accomplished? a) By following the process proposed within the CMT b) By properly timing application of the herbicide to the CMT area (only during early season snow melt in-flow of lake water) c) By placement of a multilayer barrier of floating curtains isolating the CMT areas from other lagoon areas, providing daily monitoring (water tests) between the curtain layers to assure herbicide does not travel outside the barriers.	Joshua Willard
44.04	Herbicides can be safely tested in the TKPOA lagoons, without risking contact with the main body of Lake Tahoe. This requires a physical separation of the herbicides until the testing shows no herbicide residual is present within the CMT area. How could maintaining the separation be accomplished? a) By following the process proposed within the CMT b) By properly timing application of the herbicide to the CMT area (only during early season snow melt in-flow of lake water) c) By placement of a multilayer barrier of floating curtains isolating the CMT areas from other lagoon areas, providing daily monitoring (water tests) between the curtain layers to assure herbicide does not travel outside the barriers.	Tom Spencer
102.03	Herbicides can be safely tested in the TKPOA lagoons, without risking contact with the main body of Lake Tahoe. This requires a physical separation of the herbicides until the testing shows no	Michael McGinnis

Comment Number	Comment	Commenter
	herbicide residual is present within the CMT area. How could maintaining the separation be accomplished?	
111.01	I wanted to express my support for the conduct of a comprehensive study to abate the invasive aquatic weeds in Tahoe Keys. A property owner in South Lake Tahoe since 1994, my family and I have seen the growth and negative impact of aquatic weeds in the Keys, and very willingly have voted for and paid substantial assessments to work toward fixing the problem. Please allow testing of measures, including herbicides, to end this difficult environmental condition	Kerry Harris
113.01	Thank you for the opportunity to express to the Lahontan Board our sincere desire that you vote in favor of the proposed CMT in the Tahoe Keys. As 32 year residents of Tahoe Keys and 42 year residents of Lake Tahoe we know it is crucial that we eradicate all Evasive Species from Lake Tahoe. The CMT in Tahoe Keys will be a huge step towards that goal. Please vote in favor of the CMT!	Sherri Acri
114.01	We have been in the Tahoe Keys for many years. The water in our main channels and lagoon has gotten worse every year as we try to control the weeds. It is a process that just doesn't work and costs the TKPOA millions of dollars. Please support the approval of a permit for the Controlled Methods Tests including the testing of herbicides!	Joy & Dan Norem
115.01	I have been a resident of the Tahoe Keys for many years. The water in the lagoons has worsened to the point it is unsafe to enjoy fully, looks terrible and smells at certain times of the year. I am in support of the approval of a permit for Controlled Methods Tests, including the testing of herbicides. Thank you for your attention to this matter.	Elizabeth Creer
117.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Kevin and Catherine Kornegay
125.01	I am a Tahoe Keys property owner at {redacted} Drive. I am in strong support of the proposed Control Methods Test (CMT),specifically the testing of herbicides in the lagoons to improve the water quality and prevent the spread of pondweed in the	William Fisher

Comment Number	Comment	Commenter
	Tahoe Keys lagoons and potentially the Lake. TRPA convened a core group of Stakeholders who selected the consultants to provide facilitation services and environmental consulting for the CMT. Please allow this science based,broadly supported,and effective plan for testing weed control to proceed. We hope this test will assist in allowing my 7 children and 12 granchildren to enjoy the lagoons and lake in a weed free environment in the future	
126.01	Dear water board district. I want to express my support for the Tahoe Keys testing of various methods to control the weeds in the lagoons. I support all the proposed methods including the use of EPA approved herbicides. Please provide the permits as required and allow the process and study to begin. We don't want the milfoil weeds to spread and we also don't want the lagoons at the keys and other shallow waters in the lake to get choked up with the weeds.	Lilia Sanz
127.01	I am a homeowner in The Tahoe Keys and absolutely support the planned Control Methods Test. We need to solve this serious problem as soon as possible. A science based solution needs data. We cannot succumb to anecdotal or gut-based decisions for this all important project. Years millions of dollars have been put into developing this test. Please allow this well planned CMT to move forward as soon as possible.	Jerry Banks
128.01	I am in strong support of the weed control test that is being proposed. I am highly concerned about the long term quality of the lake and believe that herbicides will need to play a strong role in getting control of the invasive weeds that are in the Keys.	Craig Dighero
131.01	I am writing in support of the TKPOA Cotrol Methods Test Draft Permit including the Test of Herbicides to CONTROL the INVASIVE WEEDS in the Tahoe Keys. We want to protect Lake Tahoe and keep our waterways open. Not just Tahoe Keys residents but for many others who use our waterways and enjoy the scenic beauty of Lake Tahoe via water. I request that the Lahontan Board Approve it as written without delay	Diana Alexander
137.01	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed	Hai Chang

Comment Number	Comment	Commenter
	with a Control Methods Test (CMT), including all the requested methods, i.e. UV-C lights, bottom barriers, and herbicides. While the invasive weeds issue has been fought for decades in the TK lagoons, the spread and density is more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA-approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem and protect the beauty and health of our entire lake.	
142.01	I have owned a home in Tahoe Keys, South Lake Tahoe, since 2004. Over the years the problems of weed infestation and toxic algae in the lagoons has only become worse. Please support the approval of a permit for Controlled Methods Test including the testing of herbicides. Not doing anything isn't an option since the water quality issues are spreading from the Keyes into Lake Tahoe.	Gary Heck
148.01	I am a local who has worked as a guide on one of our tour boats for almost two decades. I've seen the huge growth in the weed density at Tahoe keys, as well as the spread of weed to most other parts of our lake. And today, as much as twenty years ago, I'm struck by the casual approach to a serious problem of unknown magnitude. We face an unknown future environment, which very well might invite, or even facilitate the establishment of other invasives.	Dan Gill
152.01	I have been a homeowner in the Tahoe Keys for over 13 years. I am writing to encourage the approval of the TKPOA Control Methods test application of Herbicide is the Key's lagoon. The homeowners have expended substantial funds harvesting weeds and testing control methods in an attempt to mitigate the Aquatic Invasive Weed problem. I am writing to encourage approval of the proposed herbicide testing application. The Key's homeowners have spent a great deal of time, money, and effort trying to prevent the spread of the weeds to the Lake. Currently tested abatement methods are not very effective and the weed problem will eventually become a problem for all Lake Tahoe users and residents. Unless we can begin to treat the problem effectively it will soon be	Kenneth R. Williams

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	too late. Weed growth is currently occurring along the west shore of the lake off of Baldwin and Pope beaches and other locations. Unless we can minimize or eliminate the problem in the Keys we will not be able to stop the spread. Employing a Federally and State approved herbicide with a very short half-life that will be substantially be diluted by the lake's volume may be the Lake's last chance. I strongly recommend approval of the test permit.	
157.01	I support the TKPOA Control Methods Test Draft Permit, including the test of herbicides to control the invasive weeds in the Tahoe Keys waterways and protect Lake Tahoe. Many people in our community, beyond residents of Tahoe Keys, use and enjoy the waterways and Lake access of Tahoe Keys. Tahoe Keys has spent millions of TKPOA dollars to try to mitigate the invasive weed issue threatening our beautiful lake. More needs to be done. I am requesting that the Lahontan Board approve it as written, as soon as possible.	Karen Nighswonger
159.01	Please permit the use of herbicides in Lake Tahoe. I attended the open house on 10/9/21 at the Tahoe Keys to help battle aquatic invasive weeds in Lake Tahoe. I have also taken the educational course on invasive weeds and know how to identify them and have taken photos and reported them when I see them. I am very concerned about the spread of aquatic invasive weeds. It is a nuisance plant species which covers over 90 percent of the Tahoe Keys channels. TKPOA has spent considerable management and money to control this problem, however the weeds continue to spread and management costs keep growning. I am an environmentalist and I have listened to the opposing argument to not use herbicides, but in this case, I do not agree. Lake Tahoe cannot afford to wait any longer or the weeds will continue to spread. The solution is to continue the use of all the current methods TKPOA is using AND start the use of the herbicides as soon as possible.	Laurelee Barnes
160.01	We live in Tahoe Keys and hope a herbicide can be used in a test to remove the weeds. The water in the lagoons has gotten worse every year! We must act fast to preserve our BEAUTIFUL lake	Mark and Deborah Knisley

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167.03	The Water Quality Control Test seems to me to be a “no brainer”, meaning “thorough and safe”, because the herbicides proposed for the test are federal and state EPA approved, and have been used successfully in other parts of California. Any residuals appear to be harmless after a few weeks.	Wes Smith
167.04	The plan to test the herbicides solely in the shallow fingers of the isolated Keys waterways makes sense to me. The planned water barriers will be used to isolate the herbicide test area, and they will not be removed until samples show it is safe to do so. No herbicides will be used in the lake itself. The testing should be done NOW, not years away. Aren’t we seeing more curly pondweed in water samples NOW, and NOW larger infestations are observed on the shelf outside the Tahoe Keys. It’s time NOW to try something different before the infestation spreads further. What else can we do, having invested time and treasury in, and then exhausted previous options? Let’s not fail on this technology. You and I cannot live with the status quo. Thank you for counting this vote from a veteran Lake Tahoe resident, who loves our lake and mountains.	Wes Smith
169.01	For several years the TKPOA has been working to resolve our invasive weed problem. Numerous studies and investigations have uncovered a very reasonable path forward. Currently we await approval of the permit for CMT (controlled methods tests) project including the testing of herbicides. Eradication of invasive species is critical to preserving our local environments, not just here in the Keys but in many locations nationwide. Your positive action allowing the TKPOA to move forward will serve as an example of what can be done to overcome this problem through thoughtful consideration of all aspects of the problem and a careful and well thought out plan of action.	Bill Dickert
170.02	I encourage the Lahontan Regional Water Control Board to approve the Control Methods Test, including the EPA- and State-approved, safe herbicide option which has been proven effective elsewhere and is targeted to the weeds in question. I urge the LRWQCB to focus on the science. The time to act is now and I encourage the Board to use	Terri Jinkins

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	and allow ALL options to be tested in order to determine the most effective and safe method. The problem needs to be controlled before the weeds become further established in Lake Tahoe.	
170.03	The TKPOA has been working on this problem for over 10 years (some say longer). Within the last 5 years, a broad private/public collaborative effort was established with TRPA, et al, to test treatment methods and develop a lasting solution. I have attended a few TKPOA Water Quality Control Committee meetings. I am told that TRPA, the League to Save Lake Tahoe, and the Lahontan Staff recommend the CMT Test. I understand that water barriers will be used to isolate the herbicide test area and that the barriers will not be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. It is time to try something different before it is too late. Please have the courage to do so and follow the science. I thank you for listening and I encourage you to approve the Control Methods test.	Terri Jinkins
171.01	Thank you for taking the time to read this message. I am writing to voice my support for Herbicides in the fight against Invasive Weeds in the Tahoe Keys. It's no secret that Invasive Weeds have gotten the jump on us. Now that we are aware of the problem, and how serious it is, it is time for action. I believe herbicides can be used safely and effectively in the Tahoe Keys to put a serious dent in this problem, if not solve it completely. This article from 2014 states the Forest Service at Lake Tahoe was using herbicides to control invasive species and had plan to continue in the following year. This was in smaller bodies of water but the Keys presents both the need and opportunity for controlled usage in larger areas. https://www.capradio.org/articles/2014/06/27/usfs-uses-herbicide-in-lake-tahoe-area-tofight-invasive-plants/ By comparison, the boat inspection station was a new idea at the time. It is now an established part of the fight to protect the lake and as the attached link shows is more valuable now than ever before. https://tahoeboatinspections.com/spooky-side-of-lake-tahoe2021-season-marks-the-most-aquatic-invasive-mussels-ever-intercepted-at-	Mike Kelley

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	watercraftinspection-stations/ The Tahoe Keys community has been working hard on this issue for 2 decades. Lots of time, energy and money has been invested in seeking a balanced solution. Unfortunately the problem has only grown larger with each passing year. At the very least herbicides can knock the problem down to the point that non-chemical solutions may be effective. https://tahoekeysweeds.org/tkpoa-efforts/ Thank you for your consideration and hopeful support of herbicides. Like the recent Caldor fire, the repercussions of our failure to control this matter may affect the lake for generations.	
172.01	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with this careful Control Methods Test (CMT), including all the requested methods. The science clearly indicates a major threat to water quality and the future ecosystem of Lake Tahoe. The status quo is not a solution – we need to act now to determine a solution as the invasive weeds issue has been fought for decades in the TK lagoons with the spread and density more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA-approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem safely and protect the beauty and health of our entire lake. Our future depends on it.	Matt Palacio
173.01	As a homeowner in Tahoe Keys, I am requesting that you consider approving testing of herbicide targeted for invasive aquatic species. I wouldn't consider this testing if I believed that this would harm the ecology of the lake. My concern is that these weeds are becoming more and more pervasive which has negative effects on the lake. I live near the end of a canal and all my efforts to clean out this weed by hand have only resulted in more weeds growing back even stronger. Though the TKPOA has "harvested" these weeds for years, the problem has escalated. I realize that other measures have also been tested, but this herbicide test is essential to find a solution to this terrible weed problem. This problem is not only a nuisance	Miriam Shellberg

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	in the waterways, but it negatively affects water clarity and quality.	
175.01	As long time, full time homeowners in the Tahoe Keys, we are writing in SUPPORT of allowing testing of herbicides to control the invasive weeds that permeate the channels and are now making their way into the lake. Current methods such as weed harvesting have not worked; in fact, when our now 22 year old was a small child we used to let her swim in our backyard waterway, but now we won't even let our dogs near the water, due to the weeds and the algae. P	Jeff Turney and Kelly Shanahan
175.02	Promising ideas like light-impermeable bottom barriers (tarps) will only work if we eliminate or markedly reduce the amount of weeds, as currently barriers need replacing as dead and dying vegetation cover the barrier and provide a nidus for new growth, not to mention the barriers are only feasible in small areas. In order to "Keep Tahoe Blue" it is imperative we evaluate ALL tools in the tool box, including the use of herbicides.	Jef Turney and Kelly Shanahan
176.01	I strongly support moving forward with the Tahoe Keys controlled methods tests so the community can better understand effectiveness as well as side effects of the aquatic weed control approaches, including herbicides. I live in the Tahoe Keys and have witnessed the increasing impact of these aquatic weeds on lake clarity and water quality. The risks associated with the continued expansion of this evasive species into the lake risks its clarity and thereby risks this national treasure. I fully support these controlled tests as we expect they will provide a wealth of valuable information to feed the broader Lake Tahoe weed control planning efforts and help protect the lake for current and future generations.	Ira Goldstone
177.01	We are in strong support of moving forward with the Tahoe Keys controlled methods tests so the community can better understand effectiveness as well as side effects of the aquatic weed control approaches, including herbicides. We live in the Tahoe Keys and have seen the increasing impact of these aquatic weeds on lake clarity and water quality. The risks associated with the continued expansion of this evasive species into the lake risks its clarity and thereby risks this national treasure.	Janet Gardner and Richard Friedel

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	We fully support these controlled tests as we expect they will provide a wealth of valuable information to feed the broader Lake Tahoe weed control planning efforts and help protect the lake for current and future generations.	
179.01	My name is Harry Dotson and I have been a permanent resident in the Tahoe Keys for 17 years. I am a retired Civil Engineer and worked for the Corps of Engineers for 35 years in water resources planning, engineering and management. My main areas of expertise were in hydrology and water quality and I am familiar with the successful use of aquatic herbicides to control water milfoil and other invasive aquatic weeds in Corps reservoirs over the last 40+ years throughout the country. I have also been involved in my HOA as past President of the Board and Chairman of the Water Quality Committee. It has been almost 10 years ago that I, along with Dr. Lars Anderson and other informed stakeholders, recommended the use of aquatic herbicides to control invasive aquatic weeds in the Tahoe Keys. I am providing these comments to you to express my strong support of the Control Methods Test (CMT) and recommend that the LWQCB approve and issue the necessary permits and exemptions to allow for this important test to go forward. The CMT, in my opinion, is well planned, science based and will identify the efficacy and viability of control methods that can be successfully used for long-term management of aquatic weeds in the Tahoe Keys. Some of the reasons I am supporting the permitting of the CMT are as follows: Action is required now because existing methods of control cannot keep up with the growth and spread of aquatic weeds and these methods help spread fragments to the lake proper. Current methods of control are not viable economically and cannot solve the problem. The degradation of water quality and adverse impact on recreational uses of Lake Tahoe and the Tahoe Keys will continue unless more effective control methods are tested, approved and adopted. Several methods, including bottom barriers and UV light, have been tested and have shown some success in small areas, but these methods have been found not to be viable for the	Harry Dotson

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	scale of control needed in the Tahoe Keys. Other methods, including aquatic herbicides, which have been approved by the Federal EPA and the State of California EPA AND proven safe and highly effective all over the country, including California, need to be tested so their viability and efficacy can be evaluated and the best control method or combination of control methods be determined. Only then can we develop an integrated management plan that uses all the known science and methodologies that has the very best chance of preventing continued degradation of Lake Tahoe. Most of the opposition to permitting the CMY relates to the use of aquatic herbicides and is based on mis-information or basic lake of knowledge or dismissal of scientific fact. Any suggestions that aquatic herbicides are harmful to humans or other animals lack any scientific basis. Forty years of testing, research and application confirms the scientific fact that aquatic herbicides only effect the photosynthesis or related processes that only plants can do and therefore, do not adversely impact anything other than plants. Also these herbicides have little persistence in the environment and degrade to harmless inorganic compounds in a very short time. There is no build up of poisons from aquatic herbicides in the Lake or in fish and wildlife, or any adverse impact to drinking water, as some have suggested. If aquatic herbicides adversely impacted drinking water, they would be part of the drinking water standards and of course are not. I think the LWQCB responses to these types of baseless objections to aquatic herbicides could go a long way toward educating the public about the safety of aquatic herbicides. There is too much “science denial” in our society these days, so I sincerely hope the LWQCB will stick to the science when solving important problems regarding Lake Tahoe. The CMT utilizes a well thought out application and extensive monitoring plan that follows scientific fact and has the support of the scientific and academic community. The League to Save Lake Tahoe supports the permitting of the CMT and TRPA has stated that the CMT does not violate their threshold criteria. I had the opportunity	

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	to chat with Dr. Charles Goldman not too long ago and he also supports the testing and evaluation of EPA approved aquatic herbicides. Also of note is that the TKPOA had a panel of experts from all over the county give a seminar in South Lake Tahoe a few years ago, and the panel unanimously recommended the evaluation of EPS approved aquatic herbicides as a viable tool to help solve the invasive aquatic weed problem in the Keys. Shall we listen to water purveyors or others who promote fear and misinformation, and ignore the science, or shall we listen to the experts and stakeholders that support the scientific facts regarding the safety of EPA approved aquatic herbicides? The detailed environmental studies that have been completed state that among all the alternative control methods evaluated, including the use of EPA approved Aquatic herbicides, only the “no action” alternative would have significant adverse impact on Lake Tahoe. I believe that not permitting the CMT as proposed or eliminating testing and evaluation of aquatic herbicides would be paramount to a "do nothing" approach, assuring that the degradation of water quality and adverse impacts on beneficial uses of Lake Tahoe will continue. In conclusion, I sincerely hope that the LWQCB will follow the scientific facts when deciding to permit the CMT. If you have the offsite to do the right thing, we can move forward with a safe , effective and viable management plan that utilizes all the scientific facts about aquatic weed control that we currently have to solve this problem and prevent continued degradation of Lake Tahoe.	
183.02	As a Tahoe Keys property owner, as the former chairperson of the Tahoe Keys Water Quality Committee, and as a California-licensed Professional Geologist and Certified Hydrogeologist, I urge you in the strongest terms to approve the Resolution Granting an Exemption to the Aquatic Pesticide Discharge Prohibition in the Water Quality Control Plan for the Lahontan Region for the Control Methods Test of Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoons and the Waste Discharge Requirements and National Pollutant	Dr. Andrew A. Kopania

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	Discharge Elimination System (NPDES) Permit for Tahoe Keys Property Owners Association Tahoe Keys Lagoons Aquatic Weed Control Methods Test. Critical factors that substantially support approval of these items include: 1. The proposed action that would be permitted by the Exemption and the Permits is a short-term test that would allow rigorous, side-by-side comparison of a range of treatment methods. The actions would be extensively monitored and have a clear termination date. The information from this test is essential to develop a long-term plan to control and reduce the aquatic weeds. All actions subsequent to this short-term test would be required to undergo additional environmental review and permitting by multiple agencies. 2. Herbicides and herbicide degradation products would not be discharged to Lake Tahoe. The test would be conducted in isolated channels within the Tahoe Keys lagoons. Physical barriers would be put in place to prevent the movement of any applied herbicides outside of the application and treatment areas. Extensive hydrologic and water quality monitoring would be conducted to verify containment. Mitigation measures have been identified to immediately address any potential migration outside of the containment barriers. There is no possible way that the herbicides proposed for testing could reach or impact Lake Tahoe itself. 3. The Tahoe Keys Property Owners Association and its partner agencies (including the Lahontan Regional Water Quality Control Board, the Tahoe Regional Planning Agency, the League to Save Lake Tahoe, and the Tahoe Resource Conservation District) have spent many decades (since the 1970s) and many millions of dollars to try to control and reduce the aquatic weed infestation. Despite these efforts, the problem continues to grow and is now spreading out into Lake Tahoe itself. 4. A primary challenge for effective aquatic weed control is the size, or scale, of the Tahoe Keys lagoons. The Tahoe Keys lagoons encompass approximately 170 acres while ALL other enclosed marina areas around Lake Tahoe cover a cumulative 20 to 30 acres. The second largest enclosed marina area is Tahoe City at 6 acres, or less than 4% of the area	

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	of the Tahoe Keys. The West Channel entrance to the Tahoe Keys lagoons covers about 1 acre and 80% of all other marinas around Lake Tahoe are smaller than that area. To address the aquatic weed infestation within the Tahoe Keys Lagoons, different combinations of tools deployed at a massively larger scale than have been conducted anywhere else around Lake Tahoe will be required. The Control Methods Test will provide the scientific information necessary to develop the proper combination of techniques necessary for the large area within the Tahoe Keys lagoons. 5. Applications for short-term, highly controlled and monitored tests that are very similar to the current proposed Control Methods Test have been submitted in the mid-1990s, early 2000s, and 2017. To date, the efforts to obtain important scientific data through rigorous field testing have been met with misinformation and falsehoods that have only allowed the aquatic weed infestation to grow and become more difficult and more expensive to resolve. I have attached with this comment letter a copy of an article from the Tahoe Daily Tribune dated June 17, 1996. The article describes Lahontan Regional Water Quality Control Board staff testimony at a Board hearing during which the Tahoe Keys Property Owners Association's initial application to conduct a small-scale herbicide test in the Tahoe Keys lagoons was being considered. At that hearing, Lahontan staff made the incredible assertion that the watermilfoil present in the Tahoe Keys may be a Tahoe native plant and that after initial vigorous growth, the weed population may decline. There was no valid basis for those assertions at that time and the effect of that misinformation is abundantly apparent now, given that the aquatic weed growth has never declined and has spread out into Lake Tahoe. Along a similar vein today, some parties are inferring that herbicides would be released into Lake Tahoe, which, as described in Comment 2, above, is completely false.	
183.03	The proposed testing of a range of control methods to address the aquatic weed infestation within the Tahoe Keys lagoons has undergone exceptionally rigorous environmental review by both the Lahontan	Dr. Andrew A. Kopania

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	Regional Water Quality Control Board and the Tahoe Regional Planning Agency. The proposed action has received extensive review by supporting and cooperating agencies, including the U.S. Environmental Protection Agency. There has been substantial public outreach and opportunities for interested parties to learn more about the project and to provide comments. There is no doubt that the proposed testing will provide essential scientific data that is vital to develop a proper set of coordinated tools to address the problem at hand.	
183.04	There is also no evidence whatsoever that the proposed testing would harm the environment, create a risk to individuals or to public health, or violate any applicable water quality standards. The project includes redundant physical controls and monitoring to verify that these negative effects would not occur, and mitigation would be in place to address any potential excursions that might be detected. Please do not allow this decision to be derailed by continued efforts of a vocal minority to misrepresent the nature of the short-term tests and downplay the need for better scientific data to develop a long range plan to control the aquatic invasive infestations.	Dr. Andrew A. Kopania
186.02	I purchased property in the Tahoe Keys 11 years ago. It's shocking and distressing at how the AIS weeds critical mass has increased during this time, even with all the efforts to control them. We must include the testing of herbicides as one more tool to fight the AIS weed problem. We are already using/testing every type of weed control method available at this time, and it isn't enough. There is no option, moving forward, but to include herbicide testing, for the health and future of the Tahoe Keys and Lake Tahoe. Please support the approval of a permit for Controlled Methods Testing project including the testing of herbicides.	Ann D. McCullough
187.01	The entire Tahoe Keys Property Owners Association (TKPOA) Board of Directors appreciates the opportunity to submit for Lahontan Regional Water Quality Control Board (Lahontan) consideration the following comments on the Lahontan tentative permit for the subject Project. Having this permit finally considered by the	TKPOA Board of Directors

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	Lahontan Board in January 2022 represents a significant milestone in a lengthy (over 10-year) process that has included exhaustive research, numerous expert consultations, field data collection, stakeholder collaboration, and environmental regulatory analyses and public review. The tentative permit for the Control Methods Test (CMT) incorporates scientific evidence on the urgency of the invasive plant threat to Lake Tahoe, and presents extensive monitoring and reporting requirements that are far more rigorous than any other similar permit issued in California for this scale of project. Because of the unique qualities of Lake Tahoe and the importance of the test to inform a long-term solution in the Tahoe Keys Lagoons, we recognize the intent of Lahontan's cautious approach to approving the Project.	
187.04	The Top Scientific Experts on Aquatic Invasive Plants and Lake Tahoe Recommend Testing Herbicides - In 2015, TKPOA requested an independent Expert Panel of leading scientists on aquatic invasive species to advise TKPOA on the best approaches to bringing the invasive plant infestation under control. The Expert Panel unanimously supported the need to test herbicides to control the plants, for which Dr. Charles Goldman agreed in his comment letter on the Expert Panel's repo1t (Expert Panel's Report for the Tahoe Keys Property Owners, Integrated Weed Management Plan, August 13, 2015). At approximately the same time, University of Nevada, Reno experts published a report on aquatic invasive species threats to Lake Tahoe, which identified curly leaf pondweed in the Tahoe Keys as the number one threat to the ecosystem of Lake Tahoe. In that same report (Implementation Plan for the Control of Aquatic Invasive Species within Lake Tahoe, University of Nevada, Reno, July 31, 2015), the university experts, in association with the Lake Tahoe Aquatic Invasive Species Coordination Committee, recommended the need to test all available aquatic plant control methods, including the testing of herbicides. The Tahoe Resource Conservation District's recent mapping of extensive curly leaf pondweed occurrences in Lake Tahoe proper	TKPOA Board of Directors

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	outside The Keys substantiates the Expert Panel's and UNR's concern and supp01t for the testing of herbicides.	
187.05	The above information, combined with TKPOA's other conunent letters that supply additional findings and substantial evidence in support of and supplemental to these comments, make it clear that time is of the essence and the testing of herbicides must be included in a Lahontan Board approval of the CMT Project permits. The TKPOA Board therefore encourages the Lahontan Board to reject unsubstantiated information on the feasibility and risks of other control options and, instead, timely consider and approve the CMT Project and Basin Plan Exemption to: 1) continue the regional collaborative efforts to solve the long-term aquatic invasive weed challenge, 2) minimize long-term damage and costly mitigations from further infestations to Lake Tahoe's ecosystem, and 3) support the future of our recreation-based economy, tourism industry, and environmental values of our communities.	TKPOA Board of Directors
189.01	I am writing as President of the Tahoe Keys Beach & Harbor Association (TKBHA), and the Board of Directors in support of the application by the TKPOA to the LRWQCB to approve the Control Methods Test that is endorsed by TRPA and Lahontan staff including the safe EPA and State of California approved herbicide option. The Association was founded in 1963. The Association is a tax-exempt social organization, a 50l{c)(7) guided by Articles of Incorporation and adopted By-Laws. Favorable action on this TKPOA application is timely and necessary to find the most effective, safe, and practical method of controlling invasive weeds in these State waters before they become a major problem for Lake Tahoe. The Association and our members support all efforts to protect our Lake and our precious environment. The Association is fully supportive of the efforts of TKPOA to be a responsible steward and take the necessary steps in a timely manner to address this serious invasive weed problem. Your favorable consideration and action to approve the TKPOA application are respectfully requested. Thank you for the work you	David Borges, President of TKBHA

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	and your staff are doing to address this important water quality and Lake protection proposal. Thank you as well for your service to our Region and State.	
190.01	I am writing to urge the LRWQCB to approve the Control Methods Test as proposed by the Tahoe Keys Property Owners Association (TKPOA) and endorsed by TRPA and Lahontan staff including the EPA and State of California approved herbicide option. I am the retired City Manager of South Lake Tahoe, a City resident in Mt. Tallac II. My wife and I have lived here for almost 19 years, and we value and respect our environment and want all that is necessary to protect it including protection of our Lake and prevention of catastrophic fire. Since I retired, I have been a Good Government Advocate who volunteers to promote good government practices locally and at all levels of government. Inaction on this matter is not an option. We must find the most effective, safe, and practical method of controlling invasive weeds in these State waters before they become a major problem for Lake Tahoe. I am not a scientist, but I have briefly reviewed the CMT methodology. The herbicides proposed for the test are Federal and State EPA approved, and I am told, they are harmless after a few weeks. The plan to test the herbicides only in the warm, shallow, relatively obstructed fingers of the Keys makes a lot of sense. I also understand that water barriers will be used to isolate the herbicide test area, and that the barriers will nof be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. The test methodology appears to be thorough and safe. I was surprised by the revelation that the TKPOA has been working on this problem for more than a decade without success. The other treatment alternatives - ultraviolet light treatment or diver assisted suction -- don't appear to be practical or cost-effective in the turbid water of the lagoons. Herbicides are successfully used in other parts of California, and we need to evaluate this option and then follow the science. We must test all options and determine the best one. Action is needed to address the invasive weed problem. Your approval	David Jinkins, Good Government Advocate

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	of the Tahoe Keys Weed Control Text as proposed moves us substantially forward to a solution. Thank you for the opportunity to comment on this important water quality and Lake protection proposal.	
191.01	The City of South Lake Tahoe supports continued efforts to address aquatic invasive species (AIS) in Lake Tahoe, the Tahoe Keys Lagoons, Mt Tallac Lagoon and Lake Tallac Sailing Lagoon. The City appreciates the multi-stakeholder collaborative effort initiated in the 2014 Lake Tahoe Regional Aquatic Invasive Species Management Plan, which outlined strategies for coordination, prevention, monitoring and longterm control that were endorsed by the Governors of California and Nevada. While the City acknowledges the bi-state leadership of the Tahoe Regional Planning Agency (TRPA) Aquatic Invasive Species Program and financial investments from State of California, State of Nevada and federal government to allocate resources to implement a suite of AIS control actions, we also urge you to consider additional funding for these important initiatives.	Joseph Irvin, City SLT Manager
191.02	Thanks to the current allocation of resources, the implementation project list includes innovative new ideas developed in collaboration with a combination of government agencies, non-profits and local entities such as the Tahoe Keys Property Owners Association (TKPOA) outlined under the Lake Tahoe Region Aquatic Invasive Species Action Agenda 2021-2030: Tahoe Keys Aquatic Invasive Plant Enhanced Fragment Control Pilot Project, for the use of TKPOA skimming boats, a boat back-up station, bubble curtains and sea bins to act as floating collectors ($70,000 provided by the TKPOA and $5,000 provided by the League to Save Lake Tahoe). Tahoe Keys Aquatic Invasive Plant Control Pilot - Laminar Flow Aeration Pilot, for the use of laminar flow ae ration in a six-acre test area within the lagoons to reduce plant growth ($70,000 provided by the TKPOA). Tahoe Keys Complex (Offshore) Aquatic Invasive Plant Control Project to enable the Tahoe Resource Conservation District to remove plants from approximately 104 acres from the bottom of Lake Tahoe at the mouth of the	Joseph Irvin, Manager of City SLT

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	Tahoe Keys lagoons outlet ($112,000 from the U.S. Army Corps of Engineers, $548,000 from the Lake Tahoe Restoration Act, and $25,000 from the League to Save Lake Tahoe). Tahoe Keys Lagoon Aquatic Weeds Control Methods Test Implementation to evaluate a variety of implementation control methods. The City of South Lake Tahoe is dedicated to protecting the pristine clarity of Lake Tahoe and all waterbodies within the City. The City supports ongoing efforts to address invasive aquatic plants in the artificially constructed lagoons within all areas of the Tahoe Keys development and urges additional support to develop innovative techniques and timely solutions for this unique challenge.	
193.01	My name is Victor Perrella, a resident of {redacted} Drive, South Lake Tahoe. Our family vacation home was built in 1992-1992. Prior to that we owned another home in South Lake Tahoe since 1984. My family, wife, four sons and daughter are environmentalists. We have enjoyed the Sierras for five decades ..... back packing, skiing, boating, biking and, overall just enjoying the beautiful, natural surroundings around the lake. Each of us recognizes the treasure of nature and, most importantly our moral responsibility of keeping our sky clear, trees and meadows green and our lake blue. We are strong believers that man and nature can be dedicated to a responsible solution in our lagoons. In that light, we were very encouraged to read and listen to the details of the above Control Test in the Aquatic Invasive Species. My family is most anxious to see that we are finally on a path to a reasonable approach in arresting the aquatic weeds. I realize the Tahoe Keys Property Owners Association (and our family as a member) has spent thousands of dollars in their attempt to mitigate this problem. If I remember correctly, when speaking to Dr. Lars Anderson, University of California Davis, that there have been many successful applications of herbicide uses in California waterways. The results, I understand are based on scientific data , not just "hearsay". I strongly support this approach. It is a reasonable way to get started and, if we are serious in employing well documented methods in	Victor Perrella

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	our lake, we have everything to gain! I am also happy to hear that other environmental organizations, The League to Save Lake Tahoe, The Tahoe Resource Conservation District, and Tahoe Regional Planning Agency, besides yourselves, have an ' • I organized collaborative effort to test herbicides and other treatments to arrest Aquatic Invasive Species in Lake Tahoe early next year. Thanks in advance and I am grateful for your dedication.	
195.01	This letter is to encourage you to permit the testing of aquatic herbicides in the Tahoe Keys. As a 20 year property owner I have seen the infestation grow even as the TKPOA has tried many solutions. Changing temperatures and more frequent droughts have exacerbated the situation. The testing of safe approved aquatic herbicides may offer a solution. We have been told theses products have been used with success in similar water bodies. Additionally, the Keys offers the perfect opportunity to contain the test in lagoons while monitoring is going on. This control method is not intended to be used on a regular basis. Rather to assist the TKPOA in getting control of the outbreak. Thank you for your consideration of the property owners opinions in this matter	Andrew Nicoll
198.02	Dear Mr. Norman, I have been an owner in Tahoe Keys, Islanders 1, since 1995. I have seen the degradation of the lagoon and clarity over the years. It is very disturbing. Please allow the use of the tested safe herbicides in our lagoons to try and save these waterways. Lets give it a chance. My family and I have reviewed the CMT methodology. The herbicides proposed for the test are federal and state EPA approved. The plan to test only in the warm, shallow relatively obstructed fingers, as is my location, makes a lot of sense. I understand the water barriers will be used to isolate the test area, and then will be removed when deemed safe. No herbicides will be used in the lake itself. This test appears to be safe. TKPOA has been working on this for more than a decade with out success. We must try to do something different. I have heard about the ultra violet light treatment or diver assisted suction. This seems to be not cost effective	Arlene Olsen

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	or practical. . Herbicides have been used successfully in other parts of California. Please try this method before the problem gets worse. I feel as though it is affecting the enjoyment of my property and the surrounding units. We cannot afford to fail on this. Thank you for your consideration and making of this important decision.	
199.01	I support the approval of a Control Methods Test (CMT) to test the effectiveness of herbicides in combating the weed growth in the Tahoe Keys. I understand the TKPOA has done extensive preparation and will use proven herbicides that target the invasive weeds and dissipate quickly. It is critical that an effective solution be implemented as soon as possible to protect the Lake. We have seen extensive weed control efforts over the years using conventional methods, such as harvesting, raking, and tarps, but none have stemmed the spread of the aquatic weeds. I am confident the TKPOA and the other agencies and organizations involved have developed a strong testing program and will conduct the test in a very effective manner, which will hopefully serve as a blueprint for the future.	Barbara Silveira
201.02	In October of 2020 we purchased our primary residence in the South Lake Tahoe Keys for several reasons – most important being the access to the lake. We raised our children in Big Bear Lake, California and wanted to be in Northern California to replicate the experience of growing up on a lake with our grandchildren. Invasive weeds were a real problem in Big Bear Lake, and we were distressed to see the same issue in Tahoe Keys lagoons. We implore you to not waste any more time in getting this under control by allowing the use of the tested safe herbicides in our lagoons so that we may save the waterways and clarity of this amazing lake. Please read this excerpt from Reduction of Nuisance Aquatic Plants in Big Bear Lake (2006), “Big Bear Lake has always been populated with aquatic plants, but until recently, these plants were controlled by aquatic plant harvesters. Harvesters, however, could no longer keep up with the expanding plant area, and after much research, the Big Bear Municipal Water District (BBMWD) decided that the application of an aquatic herbicide	Bernard and Kim Cavanagh

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	directly targeted at two nuisance plants, Eurasian Water Milfoil (Myriophyllum spicatum) and Coontail (Ceratophyllum demersum), was the most cost effective solution to manage the plants. The two targeted species of plants comprised the majority of the plant species found in Big Bear Lake prior to the herbicide applications. After the herbicide treatments in 2002 and 2003, the biomass of these two species decreased by at least 85% within all herbicide treatment areas and these two species became the least dominant." Let's not wait any longer. Please issue our permit for CMT with herbicides.	
204.01	We have vacationed in the Tahoe Keys for 20+ years (10+ years as homeowners) Ten years ago our the water in the lagoons was clear and our children swam in the water. Today, the water is a mess and subject to harmful algae blooms. Much time and money has been wasted trying to solve the weed problem. Nothing has been effective. The proposed herbicides are both federal and state EPA approved, and have been successful in other parts of California. It is time to try herbicides in the Tahoe Keys.	Brett and Lora Lagorio
206.01	I'm writing to the board to express my support for the Control Methods Test, including the herbicide option. We have owned a house in the keys for eight years and have the seen the growth of the aquatic weeds infestation first hand. When we first bought our house, we actually enjoyed taking a dip in the canal outside. Now there are weeds everywhere, despite the many efforts to keep them under control. While it's encouraging to see the clump of weeds that typically comes free at the mandatory backup station, it's discouraging to see the water still littered with weed fragments as you make your way out to the lake. It seems prudent to test out a herbicide to see if we can actually bring the weeds under control, especially if the herbicide breaks down quickly and has been shown to be safe. I hope that the board approves moving forward with the test.	Brian Williams
207.01	My wife and I have enjoyed the waters of Lake Tahoe for nearly fifty years, the last seven as full-time residents of the Keys. We have followed	Bruce Moon

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	carefully the destructive impact of invasive weeds, and participated in various efforts, largely futile, to control them. It is time to accelerate those plans, especially the use of targeted herbicides. Further delay would achieve no purpose given that the scientific studies have clearly shown that the harm from invasive weeds far exceeds any risk from herbicides. PLEASE SAVE MY LAKE.	
208.02	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with a Control Methods Test (CMT), including all the requested methods, i.e., UV-C lights, bottom barriers, and herbicides. Lake Tahoe's purity of the water and the beauty of the lake is its timeless appeal that resonates for visitors and residents. It's of the utmost importance to be a steward, and protect the long-range health, environment and economy of the destination for those who depend on tourism for their livelihood. While the invasive weeds issue has been fought for decades in the Tahoe Keys lagoons, the spread and density are more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA-approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem and protect the wellbeing of our entire lake.	Carol Chaplin President & CEO of the Lake Tahoe Visitors Authority
209.01	We've owned a house in the Tahoe Keys for eight years and in that relatively brief time have seen a dramatic, accelerating change in the growth of invasive weeds and the clarity of the water in our lagoon. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose; these herbicides have been tested and proven in other areas. Please issue our permit for CMT with herbicides.	Carol Yashar
210.01	I have been an El Dorado County resident for nearly 50 years and a Tahoe homeowner for two years in the Tahoe Keys community. Over the course of my	David & Cassandra Lichnock

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	residency, I have seen the gradual, but accelerating degradation of the clarity of the lagoons. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas and are a viable safe solution for the weed problems currently being experienced in our lagoons. Please issue our permit for CMT with herbicides.	
212.01	My family and I have been enjoying boating and kayaking in and from the Tahoe Keys for the past 21 years. We like paddling our kayaks through the various waterways and into Lake Tahoe, observing the waterlife and birds. We have also enjoyed fishing from the docks. Overtime we have seen an increase in invasive plant life, a deterioration of water clarity, and a decrease in fish. I totally endorse the planned Control Methods Testing to solve this problem quickly. The solution needs to be scientifically based and not hinge on emotional outbursts. Good science and millions of dollars have been put into developing this test. The future of The Keys is at stake. I urge adoption of the CMT as soon as possible.	Chris Banks
214.02	I have been on the Water Quality Committee for TKPOA for almost 20 years trying to find the best way to manage the invasive weed that were first discovered in the Keys and other marinas on both the Ca and NV side in 1995. We proposed pilot projects to test Herbicides in both 1997 and 2003 and the projects were not approved by Lahontan. In 2011-2012 we did a Bottom Barrier/ Dye study with TRPA and TRCD to see potential moment of herbicides and if bottom barriers could be used effectively. 2015 IWMP Integrated Weed Management Plan was Prepared and was presented in a public Forum where it was reviewed by an Expert Panel that basically concluded Herbicides would be the best way to control the	Chris Disney

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	Invasive weeds in the Tahoe Keys. Dr Charles Goldman, the foremost expert on Lake Tahoe said in his comment letter he believed “that the use of herbicides in the Keys is warranted” In Jan and Feb 2018, we had 2 meetings with TRPA and Lahontan, with TRPA taking the lead recognizing the Invasive Weed threat to Lake Tahoe needs a solution 2018-2019 the TAHOE KEYS LAGOONS AQUATIC WEED CONTROL METHODS TEST APPLICATION was submitted which triggered EIR, EIS and CEQA required by TRPA and Lahontan Now over 90% of the Keys Lagoons are infested with the weeds and over 100 acres of the Lake. These invasive weeds are now in most marinas around the Lake and continue to spread. Curly leaf Pond weed first found in 2003 now is found in most parts of the Keys lagoons with increasing density and growing threat to the Lake.	
221.02	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with this carefully Control Methods Test (CMT), including the various requested methods. The science clearly indicates a major threat to water quality and the future ecosystem of Lake Tahoe. The status quo is not a solution -we need to act now to determine a management plan as the invasive weeds issue has been fought for decades in the TK lagoons with the spread and density more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA-approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem safely and protect the beauty and health of our entire lake. Thank you.	Deb Howard
222.02	I have vacation in Tahoe over 50 years and recently purchased a home in the Keys. Our hope is to keep the lagoons clear and functioning and to stop the degradation of that clarity. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It is our understanding it has taken many years to get to this point where we are close to implementing this tactic. It is also our understanding that many years have been wasted	Debbie Geerts

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	on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides.	
223.01	My family has owned property in the keys for 60 plus years. To see the decline of the clarity of the water in the lagoons and the amount of weeds that are invading these waters is deeply troubling. My family and I are imploring you to allow the use of the tested herbicides in our lagoons to save these waterways and the clarity of the Lake. It has taken way too many years to get to the point where we are today and too much time and years have been wasted on politics and bureaucracy. If this would have been addressed when it should have, it wouldn't be as bad as it is; an overwhelming problem that didn't have to be! These herbicides have been tested and have worked in other applications. Please provide us with the permit we so desperately need to fix the problem and make this place the beautiful place it once was.	Denise Belisle
224.01	As a member of the Tahoe Keys Boat and Harbor Association and the owner of a boat slip, I am in complete support of the application by the TKPOA to the LRWQCB to approve the Control Methods Test that is endorsed by TRPA and Lahontan staff including the safe EPA and State of California approved herbicide option. Being an El Dorado County resident for 42 years, and a regular visitor to the lake for well over 60 years, we were able to purchase a home in the Tahoe Keys in 2010. Our four children grew up visiting the lake, swimming and most importantly boating, hiking and bicycling around the lake. They now bring their children to the lake at every opportunity. We love and treasure the lake and the Tahoe Basin. We fully support any and all scientifically supported measures, including the use of approved herbicides to address the damage and negative environmental effects of the invasive weeds. Thank you so much for the important work you are doing to protect the Lake.	Doug Nowka
225.01	I am firmly in support of the use of safe and recommended herbicide use in the Tahoe Keys. As	Doug Nowka

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	a 12 year homeowner in the Keys, we have witnessed the previous efforts, while promising, fail to eradicate the worsening invasive weeds. Despite these numerous efforts, the weeds are getting worse. I support science based efforts to eradicate these weeds, including supporting the use of appropriate herbicides which seem to be the next action. Thank you for your efforts and I hope we can successfully eradicate this threat to the lake and wildlife	
227.01	As a homeowner in Tahoe Keys, I support the proposed weed control test which is scientifically designed and hopefully carefully executed. Doing nothing is not an option for Lake Tahoe and we need to do something to fix the problem. I believe we have to prioritize Lake Tahoe over the canals in the Keys but this is a problem that needs to be solved. Please approve this control test	Eileen Fagan
229.01	I fully support the chemical control test for the Tahoe Key area. The weeds have slowly taken over the Tahoe Keys area over the last 30 years. Soon, we will have a stagnate water Keys Lagoon, due to the temperate increase of these fast growth of these weeds. The weeds are now spreading to other parts of the lake and will soon destroy the looks and clarity of the lake. For year the various Boards of approvals have had their heads in the sand, hoping the situation would go away. It Hasn't! It's only become worse. It's Time to Due Something.	Gary Schenck
231.01	KEYS WEED CONTROL COMMITTEE, My wife Ginny and I live in San Francisco and have a vacation home in South Lake Tahoe in the Keys (1894 Cascade Court). We have five (5) adult children and ten (10) grandchildren and two (2) of the ten are adults. Everyone in the family loves the Tahoe home and the Keys area. The only draw back is the weed infestation. We all agree that something has to be done - but what??? We do not like the idea of placing herbicides in the water but do not know what else can be done to eradicate the problem - so the family has voted to hold our noses and state that we are in favor of using a toxic weed killer to exterminate the problem and at the same time being as safe as possible.	George Pickett

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232.01	I have a vacation home on Cascade Court in the Tahoe Keys with a dock area that is absolutely weed infested. We've owned here for about 5 years. When we first arrived, we all (even me) attempted to rake out the weeds, but it was a neverending job. Since I'm now 80 and my husband 85, it's pretty dangerous, too. We're supported all of the attempts to control the weeds, but it seems that it's time too attempt the safe herbicide solution or we will soon have destroyed our amazing lake, too.	Ginny Horning
234.01	I live at {redacted} South Lake Tahoe. I am writing you to please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. Our family had a large ranch in lower Grass Valley and watched these invasive plants choke out and destroy our 9 large ponds, please don't let this happen to our beloved Lake Tahoe, Every year this problem gets worse, to the point that our children and grandchildren won't even swim in the lagoons anymore. Too many years have been wasted on debate and what could have been a small project then is now huge. Let's give it a chance. These herbicides have been tested and proven in other areas. Please issue our permit. Thank you for your time and consideration.	Gregory Bock
235.01	I have lived in Tahoe over 40 years, almost 30 in the Tahie Keys. I have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of the lake. Much time has been invested to try and find a solution to the water milfoil and curly leaf weeds in our Lagos. What could have been a minor project a few years ago has now become issue. The proposed herbicides have been studied and tested. Please issue our CMT permit	Helga Skelly
238.01	I respectfully urge the board to approve the CMT to include herbicide testing. My husband and I first began to travel to Lake Tahoe after returning to his home state in 1985. When we took summer and ski vacations with our children, Lake Tahoe was always a preferred choice. In 2013, we were able to purchase a Tahoe property as we continued to build	Jane Kelley

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	wonderful family memories. We were attracted to South Lake Tahoe and the water access of Tahoe Keys. We have watched invasive weeds erode the beauty of our surrounding water and threaten Lake Tahoe itself. We work tirelessly to rake up the weeds around our dock but we are losing the battle. Treating weeds with herbicides has been safe and successful in other areas, so it is a viable option in this case. Certainly the beauty of Lake Tahoe and its resources deserve an efficient method to eradicate invasive weeds.	
239.01	I am writing to urge the LRWQCB to approve the Control Methods Test (CMT), including the herbicide option. I have been an avid hiker, fisherwoman and skier of Lake Tahoe my entire life. I have had a second home in the Keys for 12 years and treasure Lake Tahoe. The growing invasive weed problem impacts my kayaking in the lagoons and boating to the Lake. But more importantly, I am most concerned about the spread of the weeds impacting the water and clarity of the Lake itself. I have attended the TKPOA hall forum on the weed issue and I reviewed the CMT methodology. The testing approach using the herbicides in the lagoons, and not in the Lake, seems safe. The proposed herbicides, approved by the fed and state EPA, have been used safely in other parts of California. Time is of the essence in adopting an approach that includes many feasible and effective methods, including the herbicides, to attack the weed problem in a comprehensive way. Unfortunately, many of the approaches used by the Tahoe Keys have not been successful to date, which is why the inclusion of the use of herbicides is necessary. Thank you for your consideration of my input recommending the CMT permit and the use of herbicides as one of the approaches to combat the invasive weeds	Jeannette Lejardi
240.01	I am writing this email in support of the proposed resolution and NPDES permit granting an exemption to the aquatic pesticide discharge prohibition in the Water Quality Control Plan for the Lahontan Region for the Control Methods Test of Herbicides and other techniques to reduce aquatic invasive plants in the Tahoe Keys lagoons. As a	Jeff Flairty

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	professional engineer in the environmental field, I was surprised to see the proliferation and density of Eurasian Watermilfoil and Curlyleaf Pondweed in the Tahoe Keys Lagoons and Lake Tallac when I recently moved from South Florida. We have had similar challenges with invasive aquatic species in South Florida and the Everglades watershed for decades and have tried many of the nonchemical control methods attempted within the Keys during the past decade. Similarly to the Keys, these control methods were unsuccessful in South Florida and, ultimately, the targeted use of plant specific aquatic herbicides were employed. Many regulators in South Florida were concerned about the use of these chemicals within a watershed already damaged by upstream agricultural uses. What most people came to realize was that to do nothing was the worst option. A scalable pilot study was employed and evaluated at each step in the process for unintended consequences. Targeted and localized usage of these herbicides have been of assistance in the control of invasive aquatic species in South Florida. I feel that the Tahoe Keys are at a similar decision point. Either continue to employ “safe” measures that do not control the spread of the plants, or allow the use of these plant-specific aquatic herbicides in a controlled manner to evaluate their effectiveness in a real-world situation and look for any negative consequences. This is not a wide-spread program. This is a test of process and should be allowed to proceed. The long term health of our lake depends on you affirmative action now.	
242.01	We have been regular visitors to Tahoe Keys since 1980, and have owned our own vacation retreat bordering Lake Tallac for the past six years. For 41 years we have watched as invasive weeds progressed from an early isolated nuisance to an overwhelming, development-wide seasonal challenge. And, of course, annual growth now represents a very real threat to other parts of Lake Tahoe. For years, Tahoe Keys Property Owners Association members have been active participants, along with myriad Federal, State and local agencies, in the search for a solution to this serious	Jerry & Sally Holcombe

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	problem. Countless control experiments have been conducted in The Keys, at considerable expense, on a small-scale basis over many years with, at best, negligible results. We are finally left then with the most promising answer, namely herbicides. Based on our own layperson research, we find that herbicides have been in wide use in similar settings across the nation for years with effective weed control results and no identifiably negative impact on the environment. We encourage the Board to support the widespread use of herbicides in The Tahoe Keys. The time is long overdue to embrace this general approach. Respectfully, further gratuitous testing of this response will only contribute to further “analysis to paralysis.”	
243.01	We strongly support the proposed CMT project which will evaluate the effectiveness of four treatment methodologies to eliminate aquatic plant invasion in Tahoe Keys. Our home resides beside Lagoon #5. Invasion of aquatic weeds is a serious problem, at times making it difficult to swim, use our kayak or use our paddle boat from our small dock. We respectfully request your Board approve herbicides or other test activities to find a solution to aquatic weed invasion in Tahoe Keys.	Jerry and Peggy Jolley
246.01	I urge the LRWQCB to approve the Control Methods Test, including the herbicide option. My husband and I are Homeowners in the Tahoe Keys. We have a sail boat and kayacks and we enjoy using them in Lake Tahoe. I have attended TKPOA town hall forums on the topic, as well as the recent AIS Open House. From those events, I’ve garnered a lot of respect for the 5-year collaborative effort that got us to this critical decision point. That said, I am extremely concerned that an integrated solution might still be 5-6 years away. I understand that we’re seeing increasing concentrations of curly leaf pondweed in lagoon samples, and we have observed larger infestations on the shelf outside the Tahoe Keys. Time is our enemy. I have briefly reviewed the CMT methodology. The herbicides proposed for the test are federal and state EPA approved, and the degradants appear to be relatively harmless after a few weeks. The plan to test the herbicides only in the warm, shallow,	Jody Taylor

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	relatively obstructed fingers of the keys makes a lot of sense. I also understand that water barriers will be used to isolate the herbicide test area, and that the barriers will not be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. The test methodology appears to be thorough and safe. The TKPOA has been working on this problem for more than a decade without success. The other treatment alternatives – ultra violet light treatment or diver assisted suction -- don't appear to be practical or cost-effective in the turbid water of the lagoons. Herbicides have been used successfully in other parts of California. It's time to try something different before the infestation spreads further.	
247.01	We have lived in the Tahoe Keys for over 10 years. During the time we have lived in the Tahoe Keys, we have made an effort to be a good stewards to the beautiful Lake Tahoe. We do not use fertilizers on our lawns and we make an effort to pick up weeds and garbage in the gutters before they can travel into the lake. We are careful when boating to not spread the weeds when traveling into the lake. Unfortunately during the time we have lived in the Tahoe Keys, the weed problem has continued to worsen. Many would like to blame the Tahoe Keys development for the weed problem but these weeds exist in many alpine lakes. The Tahoe Keys homes are here to stay so it is in everyone's best interest to find a solution to the weed problem. We believe the solution is to allow the proposed herbicide testing project to proceed. We need to find a way to control the growth of the weeds in the Tahoe Keys and the marinas around the lake. We strongly suggest the agencies allow the testing to move forward.	Joe and Deborah Sherry
250.01	As a 13 year homeowner in the Tahoe Keys, I support the proposed Control Methods Test (CMT) which will assess a variety of aquatic weed control methods, including aquatic herbicides. It has been visibly obvious each year the encroachment of weeds has spread further along Lake Tahoe's shore, which increases the urgency of finding a long term solution. Despite the best efforts of all parties involved, the problem is only growing worse. While everyone may not agree with the proposed	Joseph P. and Victoria Regan

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	approach, all can agree that Lake Tahoe is a national treasure which should be preserved and protected for generations to come. The CMT is a rational scientifically based approach which clearly outlines five goals which will help identify the safest and most effective path forward. Please allow all options on the table to proceed so that in the end we have the data to make an informed long term decision to manage this crisis.	
258.01	As a long time homeowner in the Tahoe Keys and am writing to show my support for the Control Methods Test (CMT) and specifically the testing of Herbicides. The invasive weed problem is out of control in the Keys and it is spreading to may other areas in Lake Tahoe.	Kevin Hubbard
259.01	I am a current homeowner at the Tahoe Keys and for the last 6 years have seen a dramatic decrease in the clarity, and increase in the presence of invasive weeds in our lagoons and in our beautiful Lake Tahoe. Please allow the use of the tested and safe herbicides in our Tahoe Keys lagoons to try to save our waterways and also the clarity of Lake Tahoe. It's taken too long to implement this plan and now it has become essential that this herbicide is implemented immediately before there is no hope of tackling this problem as it will continue to grow in scale. The herbicides are federal and state EPA approved and are safe, and have been used successfully in other parts of California. Please issue the permit for the Control Methods Test (CMT) with herbicides. We don't have any more time to lose	Kim Eberhard
260.01	I very strongly urge the LRWQCB to approve the Control Methods Test, including the herbicide option. My husband and I have owned a second home in the Keys for 9 years but we have been spending time in Tahoe for 30 years. We are the Keys 3-5 days each week commuting between SLT and Folsom to enjoy all the recreational opportunities at our doorstep. We love Lake Tahoe. Our property backs to Pope beach and we enjoy seeing the waterfoul and wildlife. We are avid boaters, kayakers, and paddleboarders. We have rented docks in the Beach and Harbor association for a decade and last year we purchased a J dock	Kimberly Harkins

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	in the TKBHA. We knew from renting docks in the TKBHA and private docks that invasive weeds were a problem. They foul our propeller and smell terrible. We expected to have to work toward weed mitigation when we purchased our dock but we were unprepared for the sheer scale of the weed mitigation necessary. In truth the amount of weeds we pulled was staggering. In fact, we organized several 'Wine and weeds' evenings on the "J" dock to encourage other dock owners to pull the aquatic weeds and place them for collection. It made a big difference but in those slips where owners didn't want to pull weeds the smell and rot associated with the stagnant water was repulsive. Fish carcasses decomposing atop a soup of weeds for weeks. Trash and floating debris mixing with green plant spaghetti that completely fill the slips closest to the bulkheads. We need to do better and I understand this requires all our effort. Manual harvesting alone is not a sustainable solution. I have researched and studied the materials from the TKPOA town hall forums and the recent AIS Open House. In addition I have reviewed the efforts already underway along with the studies indicating that despite a variety of efforts the concentrations of aquatic invasive species in the Keys watersystems are increasing. Most concerning, as an lover of Tahoe's crystal clear waters, we are seeing a huge increase in the growth of pondweed outside the Keys. We don't want to sacrifice the beauty of Lake Tahoe to the green sludge that surrounds our boat at the dock. I have briefly reviewed the CMT methodology. The herbicides proposed for the test are federal and state EPA approved, and the degradants appear to be relatively harmless after a few weeks. The plan to test the herbicides only in the warm, shallow, relatively obstructed fingers of the keys makes a lot of sense. I also understand that water barriers will be used to isolate the herbicide test area, and that the barriers will not be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. The test methodology appears to be thorough and safe. The TKPOA has been working on this problem for more than a decade without success. The other treatment	

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	alternatives – ultra violet light treatment or diver assisted suction -- don't appear to be practical or cost-effective in the turbid water of the lagoons. Herbicides have been used successfully in other parts of California. It's time to try something different before the infestation spreads further. Beyond approving the herbicide test, I would urge the board and the technical staff at the LRWQCB to build an appropriate amount of flexibility into the permit, so that the AIS collaboration team can adjust for deficiencies or build on successes as the test proceeds. We cannot afford to fail on this. And we cannot live with the status quo. Good luck with this important decision, and thank you for considering my input	
261.01	Please approve the permit for the herbicide test within the Keys to help eradicate the weed infestation. We can all agree that Lake Tahoe is a national treasure and every effort should be made to keep the lake pristine. Therefore, since the chosen herbicide has been successfully used in other important bodies of water, such as Big Bear Lake, please lets try it here. If a test conducted within the Keys proves to be safe and effective, then we will have one more method to keep invasive weeds out of Lake Tahoe itself.	L. A. Moran
262.01	Please accept the attached written comments supporting the Tahoe Keys Weeds Control Test tentative Resolution, tentative Permit, and Mitigation Monitoring and Reporting Program from the League to Save Lake Tahoe. We are supportive of the Proposed Project and recommend it as the Preferred Project to move forward in the Final Environmental Impact Report/Environmental Impact Statement. The League will continue our extensive involvement to address the aquatic weed infestation in the Tahoe Keys lagoons while protecting the health and clarity of Lake Tahoe. Thank you for the opportunity to comment and do not hesitate to contact us directly with any questions.	League to Save Lake Tahoe, Laura Patten
262.02	The purpose of this letter is to express the League to Save Lake Tahoe's (League) support for the tentative Resolution, tentative Permit, and Mitigation Monitoring and Reporting Program for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test.	League to Save Lake Tahoe

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262.04	The League urges Lahontan to approve this Project as immediate action is required to stop the infestation in the Tahoe Keys lagoons from expanding further in Lake Tahoe. The over 100 acre infestation spreading from the Tahoe Keys lagoons is the largest population of aquatic weeds in Lake Tahoe proper and will continue to grow and spread until the source within the Keys lagoons is addressed. The tools we have are insufficient to tackle the complexity and scale of the Tahoe Keys lagoons infestation – a unique and innovative solution is needed.	League to Save Lake Tahoe
262.06	The League is dedicated to protecting and restoring the environmental health, sustainability and scenic beauty of the Lake Tahoe Basin. In connection with our mission, we advocate for projects that control and manage aquatic invasive species (AIS) in the Lake Tahoe watershed to a point of ecological insignificance, thus protecting Lake Tahoe's fragile ecosystem. The League has worked closely with the Tahoe Keys Property Owners Association (TKPOA) over the last nine years on addressing the largest aquatic weed infestation at Lake Tahoe, located in the Tahoe Keys lagoons. A formal stakeholder process initiated by the Lahontan Regional Water Quality Control Board (Lahontan) and the Tahoe Regional Planning Agency (TRPA) that began in 2018 has resulted in the current proposal to conduct a test of a variety of control methods, one chemical and several non-chemical, in the Tahoe Keys lagoons.	League to Save Lake Tahoe
262.09	As the Draft EIR/S (DEIR/S), tentative Resolution, and tentative Permit states, the Project would allow TKPOA and resource managers to study, analyze and compare a variety of options in combination and isolation prior to developing, evaluating and implementing a future long-term aquatic weeds control project in the Tahoe Keys lagoons. The significant environmental impacts resulting from the "No Action" Alternative provide a sense of urgency, compelling immediate action. Control, management, and monitoring of AIS (including aquatic weeds) is a top priority for the League and the Lake Tahoe AIS Program, and we look forward to continuing our work with all partners to assist partners with	League to Save Lake Tahoe

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	ongoing monitoring efforts and assessment throughout and following the Project.	
262.11	We support the three-year testing program to demonstrate effectiveness and safety of methods The League advocates for a suite of test methods because we need additional, proven, effective invasive weeds treatments in the toolbox. Lake Tahoe is a unique cultural and environmental resource, which demands utmost confidence that any AIS control project can be conducted safely and without impairing water quality in the Lake. The "Proposed Project" would test the effectiveness and prove the safety of existing and emerging tools before larger scale implementation with enhanced monitoring. . Immediate action is required to stop the infestation in the Tahoe Keys lagoons from growing, expanding farther into the Lake proper, and spreading to other areas of the Lake. As identified in the DEIR/S, no action has the most significant impact on the Lake.	League to Save Lake Tahoe
262.12	The tools we have now are not sufficient to tackle the complexity and scale of the Tahoe Keys lagoons infestation – a unique and innovative solution is needed.	League to Save Lake Tahoe
264.01	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with this carefully Control Methods Test (CMT), including all the requested methods. The science clearly indicates a major threat to water quality and the future ecosystem of Lake Tahoe. The status quo is not a solution – we need to act now to determine a solution as the invasive weeds issue has been fought for decades in the TK lagoons with the spread and density more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA-approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem safely and protect the beauty and health of our entire lake	Leann Dupre
265.01	I am writing in support of the herbicide test plan to control invasive aquatic plans in the Tahoe Keys lagoons. Other methods have proven ineffective and the weeds are massive, threatening to spread	Lee Mei

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	to Lake Tahoe itself. We can't afford any more procrastination. Thank you for your attention!	
266.01	We have owned a home in the Tahoe Keys since 2004. Over the years we have seen gradual an now accelerating degradation of the clarity of the lagoons over these 17 years. Please allow the use of the tested safe herbicides in our lagoons to try and save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project is now a much larger project. Let's give it a chance. Doing nothing is not an option. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides.	Lisa Gianoli
267.01	Lifelong residents of So Lake Tahoe, CA , Lake Tahoe enthusiasts and supporters, and boat owners, we are writing to you to express support for to begin evaluating a new method to eliminate the non-native weed infestation impacting Lake Tahoe and in particular the Tahoe Keys waterways. This year we had to pull our water vessiles out twice in order to care for the damage caused by the invasive weed infestation in the South Shore waterways. We personally (manually) cleaned our dock area twice of the weeds, only to have them return full force less than 2 weeks later. Without immediate attention, this weed will overtake all of Lake Tahoe's pristine shoreline waters, beaches, channels, etc. Our lifelong support of "Keeping Lake Tahoe Blue" as well as our volunteer efforts in cleaning shoreline, beaches and marinas is testimony to our concern. PLEASE approve the TKPOA's application to address this continually growing infestation before it's too late.	Lisa Lee & Steve Akacsos
270.01	I urge the LRWQCB to approve the Control Methods Test, including the herbicide option. I have been enjoying Lake Tahoe and all of its beauty for over 25 years. I am concerned about the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of	Lori Krumrei

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	Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides. Also, the League to Save Lake Tahoe strongly supports the proposed Control Methods Test because science clearly shows that aquatic weeds pose a dire threat, the status quo will not solve the problem, and the fate of Lake Tahoe is at stake. To Keep Tahoe Blue, we must move forward with this comprehensive and careful test of any and all methods that could be part of the long-term solution. This fact is beyond debate: if we do nothing, or fail to act quickly, the fate for Lake Tahoe is unavoidable.	
273.01	Our family urges LRWQCB to approve the Control Methods Test, including the federal and state EPA approved herbicide options. When we think back to the early days of the Caldor fire this past summer, the efforts by firefighters to contain the fire were hampered because they did not have adequate resources and the fire exploded, devastating the area and threatening South Lake Tahoe. We envision a similar scenario with the aquatic invasive weeds in Tahoe Keys and Lake Tahoe. We have an opportunity to address the problem while it is mostly contained and minimize the spread of the weeds. The proposed herbicides are approved and have been successfully used in other parts of California. We believe that all available and approved resources should be used to solve this problem. Our family are 45-year property owners in Tahoe Keys, and are saddened by the degradation of the water quality over the years. Let's give this problem our best effort.	Marc Le Poullouin and Mara Le Poullouin Yarp
275.01	I have owned my property in Tahoe Keys for over 20 years. I have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake	Mary Seeley

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	Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides.	
276.01	As a visitor of the lake from an early age and now as home owner and resident of Lake Tahoe, I would like to move forward with any measures necessary to insure the clarity of the lake for years to come. The weed infestation in the Tahoe Keys has been a disgrace for decades, we cannot place the blame on any single entity, but need to come together as a whole, put our differences aside, and formulate a solution. I would not like a chemical to be the solution, but if no other means would be effective then what other choice do we have. Doing nothing will not solve the problem and it is likely to get worse. I know you will do what is necessary and act in the interest of the lake, that is our most valuable resource and greatest concern	Matt Valentine
278.01	I am Tahoe keys resident, As a resident, I am concerned, every time I take my boat out that I am harming the rest of the Lake. I do what is asked of me and back up my boat and hope that it is enough. We need to find a way to eliminate this issue from Tahoe keys area so it doesn't containment the rest of the lake. I am in support of moving forward with control testing	Maz Zabaneh
279.01	My wife and I have lived in the Keys for the last decade. We have observed the accelerating degradation of the clarity of our lagoons and waterways since we've been here. We urge you to please allow the use of the tested, safe herbicides in our lagoons to save these waterways, and ultimately the clarity of Lake Tahoe. Many years have been wasted on debate and what should have been a small project when it was first identified as an issue, is now a daunting problem to solve without known, certain methods to arrest, and eliminate this issue. Please give herbicides an opportunity to address this issue, as we now have	Michael & Gayle O'Brien

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	nothing to lose, and everything to gain. Herbicides have been tested and proven successful and safe in other waterways, why not ours? Please issue our permit for CMT with herbicides.	
280.01	My name is Michael Walton. I purchased my home in The Keys in 2002 and have owned ever since. I have a high school friend (class of 1963) who was for many years a senior scientist in the Department of Forestry at the University of Florida in Gainesville. He would visit us in Tahoe every summer for several years. After observing the weed condition after the fifth year, around 2010 or 2012, he asked why the association wasn't using herbicides explaining how SAFE and EFFECTIVE they are and how quickly the dissipate from the waters. Millions of dollars and thousands of man/woman hours later, the weeds are still choking the waterways and proliferating. WHO THE HELL IS MAKING THE DECISIONS that keep us losing the battle with this invasive danger?	Michael Walton
281.01	As a resident of the Tahoe Keys at 2194 Shasta Ct, South Lake Tahoe, Ca, 96150, I am in support of testing the proposed herbicide weed abatement method. We own a dock attached to our property title. As homeowners, we are concerned about the weed problem obstructing navigation, the constant cost to us as members of the HOA for weed cleanup and removal, and the threat of these weeds spreading to other shallow areas of the lake. We have done our own research and see that the science behind the herbicide method is sound. Please approve of this effort to rid the keys and Lake Tahoe of invasive weeds	Mike Kohl
283.01	As lifelong residents of Northern California and frequent visitors to the Lake Tahoe area, we are writing to declare our support for the TKPOA Control Methods Test for the preservation and health of Lake Tahoe and its surrounding waterways. The recommended EPA approved herbicides and testing methods proposed in the Control Methods Test would provide a safe and comprehensive alternative to the current tests and recommendations, while also maintaining the integrity of the environment. Lake Tahoe is renowned for its majestic beauty and wildlife, and	Don & Jean Bjork

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	Californians are known for protecting their cherished landmarks and destinations. In submitting this request for your consideration, we are appealing to you to seriously consider implementing the TKPOA Control Methods Test.	
284.01	Please grant the TKPOA approval for the Control Methods Test/Herbicide use. This method has been proven effective in other lakes around the country and seems the most logical and safe for our beautiful Lake Tahoe. I have lived in the Keys for over 10 years and have seen the problem deteriorate drastically. The bottom barriers have worked, however only on a small scale and would not be financially or physically possible throughout the many acres of the Keys. Please consider your decision carefully as without the Herbicide approval we could be in for another 5+ years of declining water quality and subsequently Lake Tahoe's clarity destroyed for future generations.	Nate Mors
286.01	We have lived in Tahoe over 25 years and 10 of those years have been in the Keys. I have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let’s give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides.	Phil Moulton and Debbie Brown
288.01	We own a home in the Tahoe Keys for many years and I have enjoyed Lake Tahoe since I was a child. Having been here for years we have seen the efforts made to clear up the weeds in the keys and still there is a problem. The herbicide choice has many advantages and we urge approval to issue a permit for the Control Methods Test with the herbicide option. The herbicide option has several advantages such as: it has worked in other areas, it degrades after a few weeks, is thorough and safe, and has been approved by federal and state EPA.	Dorothy and Richard Burton

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	Several methods have already been used by TKPOA over the years and have not been successful. Therefore, this is the reason that we urge the approval for the permit to use the herbicides because of the advantages I previously listed.	
289.01	I have worked in the Keys for over 40 years. I remember the days when we could swim in the lagoons. Not any more because you will not allow the use oh herbicides. Back in the 70's up in Washington state the lakes were so green you could not see six inc...	Rick Wood
290.01	My husband and I have been residents of South Lake Tahoe for the past thirty years having moved to Tahoe Keys five years ago. We are avid boaters who enjoy the water and fishing. It saddens us to see what has happened to the lagoons from the time we first moved here to current. We can't even imagine what is in store for the future if we do not get a handle on the invasive weeds in our lagoons. My husband and I have attended several town hall forums on the topic of invasive weeds and possible methods in how to control these weeds. Most recently, we attended the AIS Open House as well. I have learned a lot from these events and am grateful for the five year collaborative effort that has got us to this critical decision point. Having said that, I am extremely concerned of discussions stating that an integrated solution might still be five to six years away. It is my understanding that water barriers will be used to isolate the herbicide test area, and that the barriers will not be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. It seems to both my husband and I that proposed test methodology appears to be both safe and thorough. The TKPOA has been working on this problem for more than a decade without any success. The other treatment alternatives, ultra violet light treatment and or diver assisted suction, don't appear to be practical or cost effective in the turbid water of our lagoons. Herbicides have been successfully used in other parts of California. It is absolutely time to try a different approach which includes herbicides to stop	Robert & Stephanie Reinhardt

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	this infestation before begins to have a large impact in the lake.	
292.01	The best procedure to follow in the elimination of invasive weeds is to apply a broad spectrum of remedies as well as following previous successes. All of the suggested ideas should be tried as well as applications of herbicides which have been successful in many prior remediation attempts	Sanford Weber
294.01	As current homeowner in the Tahoe Keys and an advocate to keep our Lake Tahoe water clear I am writing to you express my support of the application by the TKPOA to the LRWQCB to approve the Control Methods Test that is endorsed by TRPA and Lahontan staff including the safe EPA and State of California approved herbicide option. Favorable action on the TKPOA application is timely and necessary to find the most effective, safe, and practical method of controlling invasive weeds in these State waters before they become a major problem for Lake Tahoe. Your favorable consideration and action to approve the TKPOA application are respectfully requested. Thank you for the work you and your staff are doing to address this important water quality and Lake protection proposal.	Stephen and Tammy Carmassi
295.01	As a long time resident, over 50 years So. Tahoe, 20 years in Tahoe Keys, I have been surprised at the many years of invasive weed growth. While this may be a tough environmental challenge, it seems time there be a more aggressive action taken to eliminate or greatly reduce this problem to Lake Tahoe. I see the invasive weeds have crept out to the shoreline and this is not pleasant for swimming, wading, boating, etc. anymore. I understand as outlined by David Borges of the TKPOA, there is a herbicide capable of reducing the invasive weeds in the keys and nearby lakeshore. I request that you authorize the use of the herbicide as soon as possible. There needs to be a bigger effort made to help Lake Tahoe move to better clarity. I'm one of the people that helps to clean the beaches with League to Save Lake Tahoe and do my part to pick up litter and weeds at shorelines everywhere I go in Lake Tahoe basin. I look forward to your helping us return Lake Tahoe to cleaner, earlier years.	Stephen Oaks

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297.02	I support a carefully considered plan to combat invasive aquatic weeds in the Keys. I have not reviewed most of the documents, but still submit my qualified support, for the following reasons: I am a long-term volunteer at TERC (Tahoe Environmental Research Center); have education and work experience in Natural Resources, including in the Tahoe Basin, and have first-hand knowledge of the rigorous application of scientific principles by TERC and affiliates' staff. No one at TERC has enlisted my support of this project. I have read an opposing Opinion in a local weekly- by the Sierra Club rep for the basin, and have concluded that most if not all alternatives have been evaluated by now. There is little indication the project will be a "gateway" for wider application of pesticides in the Basin	steve klukert
299.01	I urge the LRWQCB to approve the Control Methods Test, including the herbicide option. As a homeowner and one time ranch owner, I know how destructive weeds can be. Without herbicides, large areas are almost impossible to control above land, let alone under water. As we all know, our food supply depends on the use of safe herbicides. I have attended TKPOA town hall forums on the topic, as well as the recent AIS Open House. I have gained a lot of respect for the 5-year collaborative effort that got us to this critical decision point. I am extremely concerned that an integrated solution to aquatic weed control might still be 5-6 years away. I understand that we're seeing increasing concentrations of curly leaf pondweed in lagoon samples, and we have observed larger infestations on the shelf outside the Tahoe Keys. Good luck with this important decision and thank you for considering my input.	Steve Lisenby
303.01	I have been a property owner in the Keys for 16 plus years. I have seen the decline of the clarity of the lagoons over the years as well as the evasive growth. I am in favor of the use of the approved safe herbicides in our lagoons, waterways, and the lake. It has taken a long time to get to where we may all be in favor of this to happen. There has been too much wasted time and energy put into this for it not to be agreed upon by all. I say let's move forward. These products are used in other locations.	Terry Alexander

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	Please issue the permit and approval for CMT with herbicides.	
304.01	My family has been Keys property owners and frequent visitors of Lake Tahoe for over thirty years now. In the near future upon retirement I hope to spend at minimum the summer months there regularly. We have always been avid water enthusiasts and my kids raised the same. Whether it has been jet skis, windsurfing, paddle boarding or boating, there is hardly a day we are there that we are not on the water. I have personally witnessed the decline of the Lake due to the invasive weeds during my forty plus years of playing on the Lake. I have watched with frustration year after year as it has continually gotten worse and nothing done but talk about it. That's a lot of years of wasted time and here we are at a major turning point. About a month ago when we pulled our PWC's out for the winter, I had to tow mine to the ramp as it had sucked about 20 lbs of weeds into its impeller. I have continued to read the reports and updates for years and years and years to see where this was going and more importantly when??. It is very clear there are solutions that have been successfully tested and used elsewhere. Well known and respected water experts have blessed the methods being proposed. I am in the construction industry which is filled with Buracracy. Way far more often than not the results of these long drawn out processes create negative results that could have been avoided without the indecisiveness. It's time something has to be done, no more vacillating and drawing out as the Lake declines. We are urging you to proceed with the Herbicide Testing with the prescribed protocols with confidence we can finally move in a positive direction and head off this invasive cancer.	Marco Perrella
306.01	I plead with the board to please approve the Control Methods Test including the herbicide option. It is abundantly clear that the waterways of Tahoe Keys are choked with weeds and are unhealthy. We know the recommended herbicide and other treatments have been very successful with minimal drawbacks, especially compared to the disaster of doing nothing. Please please please approve the CMT options.	Tom Scott

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307.01	1) I support the proposed Control Methods Test (CMT) proposed by TKPOA, and currently being evaluated by the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency as part of the permitting process. As proposed, I believe the CMT is the best mix of methodology to truly analyze the safety, efficacy and cost of controlling the aquatic invasive plants in the Tahoe Keys.	Thomas Spencer
309.01	We have owned a second home in Tahoe for the last twenty years. Our reason for buying in South Lake Tahoe was the beautiful Lake. Unfortunately the Lake now has invasive weeds that is threatening the health of the Lake. Please approve the TKPOA application for the weeds control test so that beautiful Lake Tahoe will once again be healthy!	Barbara Ochoa
310.01	We are writing to express our support for the 3-year Control Methods Test proposed for Tahoe Keys including testing with herbicides and UV-C light. Given the rapid progression of invasive aquatic species throughout the Keys, and increasingly in Lake Tahoe, we must act now to evaluate all of the proposed proven abatement methods. We are impressed with the collaborative nature of the testing effort and feel the CMT has been put together with great care; we are hopeful that the results will point the way to an effective, long-lasting and comprehensive plan to keep the weeds at bay. We urge the Lahontan Regional Water Quality Control Board to approve the CMT at its vote in January.	Charlie and Dale Tritschler
313.01	I writing in support of the TKPOA Weed Control Test Project. As a boater using the Tahoe Keys facilities since the mid 1980's and a land surveyor working on various BMP projects in the area, I've seen the milfoil and other invasive weed problem continue to worsen through the years and a solution needs to be investigated and applied. With such wide spread support by the appropriate agencies this seems to be the best approach.	Darryl Harris
314.01	I am in favor of the Weeds Control Test 100%. The AIS in Tahoe Keys present a serious threat to the water quality in Lake Tahoe. Fragments of AIS transport across the lake via wind, currents, and	David Topol

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	boats continuing the spread of AIS to other areas of Lake Tahoe. Early detection and rapid removal is critical to an effective fight against AIS and the time to act is now. The herbicide products chosen for the test are EPA approved and have been successful in other regions of the state and entire	
317.01	I live at{redacted} ., in Tahoe Keys. I have lived there since 1984. During that time we have gone from no weeds to the horrible situation that we are in now. With all the climate change we have no time to wait! We need to move forward to take care of this problem. I encourage you to approve the permit for the CMT including use of herbicides. Please save our lake.	Eileen Forster
329.01	The tentative permit for the Control Methods Test (CMT) incorporates scientific evidence on the urgency of the invasive plant tlu·eat to Lake Tahoe, and presents extensive monitoring and reporting requirements that are far more rigorous than any other similar permit issued in California for this scale of project. Because of the unique qualities of Lake Tahoe and the importance of the test to inform a long-term solution in the Tahoe Keys Lagoons, we recognize the intent of Lahontan's cautious approach to approving the Project.	Tahoe Keys POA Board of Directors
329.02	If approved, the TKPOA Board is fully committed to implementing the Project as presented in the tentative permit and will continue its collaboration with its public/private partners including TKPOA, TRP A, TRCD, the League to Save Lake Tahoe, and others. These investments and collaborative actions demonstrate the TKPOA Board's commitment to finding a long-term solution that will protect Lake Tahoe and its beneficial uses.	Tahoe Keys POA Board of Directors
329.03	Lahontan Board Consideration of the Tentative Permit Needs to Acknowledge that No Control Options, with the Exception of Herbicides, Are Known to Be Feasible at the Scale of the Tahoe Keys Lagoons	Tahoe Keys POA Board of Directors
329.04	The Expert Panel unanimously supported the need to test herbicides to control the plants, for which Dr. Charles Goldman agreed in his comment letter on the Expert Panel's report (Expert Panel's Report for the Tahoe Keys Property Owners, Integrated Weed Management Plan, August 13, 2015). At	Tahoe Keys POA Board of Directors

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	approximately the same time, University of Nevada, Reno experts published a report on aquatic invasive species threats to Lake Tahoe, which identified curly leaf pondweed in the Tahoe Keys as the number one tlu·eat to the ecosystem of Lake Tahoe. In that same report (Implementation Plan for the Control of Aquatic Invasive Species within Lake Tahoe, University of Nevada, Reno, July 31 , 2015), the university experts, in association with the Lake Tahoe Aquatic Invasive Species Coordination Conunittee, recommended the need to test all available aquatic plant control methods, including the testing of herbicides. The Tahoe Resource Conservation District's recent mapping of extensive curly leaf pondweed occurrences in Lake Tahoe proper outside The Keys substantiates the Expert Panel's and UNR's concern and support for the testing of herbicides.	
329.05	The TKPOA Board therefore encourages the Lahontan Board to reject unsubstantiated information on the feasibility and risks of other control options and, instead, timely consider and approve the CMT Project and Basin Plan Exemption to: 1) continue the regional collaborative efforts to solve the long-term aquatic invasive weed challenge, 2) minimize long-term damage and costly mitigations from further infestations to Lake Tahoe's ecosystem, and 3) support the future of our recreation-based economy, tourism industry, and environmental values of our communities.	Tahoe Keys POA Board of Directors
330.01	list of persons who signed a petition in favor of the Control Methods Test at two separate Aquatic Invasive Weeds Open Houses held by the Tahoe Keys Property Owners Association, one October 9 and the second, October 29. total was 95 signatures	Kirk Woolridge
333.01	I’ve lived in the Tahoe Keys for 21 years. When I first moved there the weed problem was almost non -existent but over the years it has blown into a major problem and expense. Since this weed problem is not going away and each year it’s getting worse, the herbicides have to be tried. I’ve read where these herbicides have helped greatly in other lakes in the United States that have the same problem that exits here. The test needs to be	Louise Martin Kobellas

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	approved to try to resolve this weed issue or as I've seen the problem is going to worsen. Please consider the history and long term ramifications of this Lake Tahoe weed problem	
335.01	I would like to express my full support for the approval of the Control Methods Test, including herbicides. I have lived in Tahoe for the past 22 years and in the Tahoe Keys for the past 15. As an avid boater who has spent a great deal of time on the lake, I believe the risk of aquatic weeds continuing to spread to other areas due to the excessive overgrowth in the Keys is far greater than the risk of any harm that could be caused by using proven herbicides.	Michael Keller
336.02	This proposed project tiers to the goals of the Lake Tahoe Region Aquatic Invasive Species Management Plan (2014) by proposing methods to limit the spread of existing AIS populations in the Region and abating harmful ecological, economic, social, and public health impacts resulting from AIS. The project also tiers to the Implementation Plan for the Control of Aquatic Invasive Species within Lake Tahoe (2015), by focusing control efforts on the highest priority infestation, the Tahoe Keys, and the highest priority invasive plant species in Lake Tahoe, Eurasian watermilfoil and curly-leaf pondweed. Lastly, this project is in direct alignment with the Lake Tahoe Region Aquatic Invasive Species Action Agenda 2021-2030 (2019) which directs implementation of a well-funded, comprehensive and robust science-based suite of aggressive AIS control actions through the next decade to reduce the economic, environmental, and social effects of AIS in the Lake Tahoe Region.	Tori Walton
336.04	In 2020-2021, Tahoe RCD initiated the Tahoe Keys Offshore Complex Aquatic Invasive Plant Control project in an effort to tackle the infestation spreading lakeward of the Tahoe Keys Lagoons. This effort was begun when bubble curtains were installed in the West Channel and East Channel of the Tahoe Keys, and in coordination with TKPOA and our partners on the Lake Tahoe Aquatic Invasive Species Coordinating Committee. The success of the > 100 acre Offshore Complex plant control project depends heavily on the time-	Tori Walton

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	sensitive implementation of the control methods test project in the Tahoe Keys lagoons.	
341.02	8 Years of Macrophyte Survey Data from the Tahoe Keys Lagoons and Recent Years of Survey Data in Lake Tahoe Adjacent to the Keys Lagoons Clearly Demonstrate a Time- Critical Need to Use All Feasible Methods to Gain Control of Aquatic Invasive Plants in the Keys Lagoons – In the attached comments, TKPOA presents survey data on the expansion of curlyleaf pondweed in the lagoons. We also present the Tahoe Resource Conservation District's (TRCD) survey data of Lake Tahoe adjacent to the lagoons that clearly demonstrates the expansion of curlyleaf pondweed into the lake in recent years. The data is clear that curlyleaf pondweed is now well established in over 100 acres of Lake Tahoe. With the Tahoe Keys Lagoons, the likely source of the TRCD-identified infestation, there is a time-critical need to test all feasible control methods, including herbicides, to bring the infestation under control in the lagoons.	Pete Wolcott
341.04	On behalf of the Association members, its Water Quality Committee and staff, we appreciate the Lahontan Board staff's work and dedication to the technical analyses and preparation of the tentative permit package on the CMT Project for Lahontan Board consideration in January 2022. Please feel free to contact us if you have questions regarding the above or the attached.	Pete Wolcott
341.05	• The relatively recent (2003) appearance, and now dominance of curlyleaf pondweed in the Tahoe Keys lagoons, presents an unprecedented threat to Lake Tahoe, unlike any prior invasive species threat. As shown in the Figure 1 graph below, which was created using data collected from the annual macrophyte point sampling survey in the Tahoe Keys, curlyleaf pondweed in the lagoons has increased exponentially since 2014. In 2015, the average total occurrence rate of curlyleaf pondweed in the Tahoe Keys (determined by combining all samples pulled from the Marina Lagoon, Main Lagoon, and Lake Tallac) was 4%. By 2020, the occurrence rate was 47%, showing an alarming increase, with the most dramatic increase seen between 2015 and 2016 (see graph below).	TKPOA

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	Curlyleaf pondweed is consistently found in water greater than 10 feet in depth, spreading into areas that had previously been dominated by other species (TKPOA 2020). The increasing growth of curlyleaf pondweed is of great concern for the Tahoe Keys and the Tahoe Basin as a whole (University of Reno, 2015). The continuing trend of increasing occurrences suggests that the infestations within the Tahoe Keys lagoons have not plateaued and have further potential for spread and increasing composition percentage. The recent invasive plant survey data from Tahoe Resource Conservation District of curlyleaf pondweed becoming established in Lake Tahoe proper (i.e., "Tahoe Keys Offshore Complex", see Figure 2 below) represents a clear near-term threat for all of Lake Tahoe. As such, TKPOA believes that the control of curlyleaf pondweed has become a time-critical issue that calls for near-term action to prevent broader spread into near-shore areas of Lake Tahoe proper. This near-term action is to first test the efficacy of the proposed CMT Project herbicides for managing the weeds in the lagoons to reduce the lagoons as a source of invasive plants to Lake Tahoe. If curlyleaf pondweed continues to expand into Lake Tahoe proper, exponential growth in Lake Tahoe will not be controllable. The proposed test needs to include herbicides as a proven, feasible method that has been used safely and successfully in similar settings throughout California and the nation.	
341.09	• Comparisons of herbicide and the relatively unknown UV-C light must be done in tandem, as proposed in the CMT Project, to ensure similar conditions and scientifically comparable and reliable data. Because of the many variables of weather, water year conditions, water quality, and plant growth, without concurrent testing, we will not be able to directly compare the efficacy of the control methods.	TKPOA
343.01	Please accept this email that provides my ardent support for the proposed Control Methods Test and, specifically, the testing of herbicides within the Tahoe Keys lagoons. As a 40+ year resident of Lake Tahoe, the past 30 of them in the Tahoe Keys,	Peter Grant

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	I have closely followed the endless efforts over the past decades (yes, “decades”) that have been made to identify viable, practical solutions to managing, controlling and reducing the lake-wide spread of Aquatic Invasive Species. Having attended the earliest presentations about the use of herbicides, it is clear that the science supporting the safe use of this option has always been there. In short, after exhaustive efforts employing numerous other alternative solutions, it is time to employ this Control Methods Test and, hopefully, one and for all, identify a real solution to this ongoing and increasing threat to our beloved Lake Tahoe.	
344.03	The non-herbicide control measures to be tested by the Project (i.e., UV-C light and laminar flow aeration) have shown limited effectiveness based on the past two years of preliminary testing in The Keys lagoons. This recent lack of success only highlights the urgency of trying new methods. The 2021 reports on these methods are under preparation and will be submitted to Lahontan as soon as possible.	Peter Wolcott
345.01	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with the Control Methods Test (CMT), utilizing the various methods suggested. We’re at a crossroads with this issue and while politics will likely come into play, we’re hoping taking the courage to do make the proper decision will win out. Obviously, “herbicides is a key consideration causing some angst with some, but the science and experience of its usage in numerous places throughout the U.S. has proved safe and effective. The status quo or more delay is not a solution as these weeds pose a serious and growing problem for our environment here at Tahoe. When I hear that the League to Save Lake Tahoe, TRPA, and scientists, including Richard Goldman (from a 2015 letter) recommend EPAapproved targeted herbicide for mitigation in the Keys lagoons, it boosts the confidence to mitigate the problem safely to protect the beauty and health of our entire lake. Thank you.	Phil Weidinger
347.01	I firmly believe that in order to have a complete Control Methods Test, the herbicide option must be included in the test suite because this is an	Robert and Michele Toaz

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	extremely viable solution to the invasive weeds in Lake Tahoe. Herbicides have been used successfully in many similar alpine lakes across the United States without any deleterious effects. After reviewing the CMT methodology, I saw that the herbicides proposed for the test are federal and state EPAapproved, and the degradants become harmless after a few weeks. The plan to test the herbicides only in the warm, shallow, relatively obstructed fingers of the keys makes a lot of sense. I also understand that water barriers will be used to isolate the herbicide test area, and that the barriers will not be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. The test methodology appears to be thorough and safe. The TKPOA has been working on this problem for more than a decade without success. Other treatment alternatives, e.g., ultraviolet light treatment or diver-assisted suction, don't appear to be practical or cost-effective in the turbid water of the lagoons. But most importantly, as stated above, herbicides have been used successfully in other parts of the country. Beyond approving the herbicide test, I would urge the board and the technical staff at the LRWQCB to build an appropriate amount of flexibility into the permit, so that the AIS collaboration team can adjust for deficiencies or build on successes as the test proceeds. We cannot afford to fail on this. And we cannot live with the status quo. Good luck with this important decision, and thank you for considering my input.	
348.01	To whom this may concern: Lake Tahoe has had many invasive species introduced either accidentally or on purpose for more than 100 yrs. Some have been of limited "success" while others have damaged the ecosystem severely with intended or unintended consequences. The proliferation of aquatic plants in Tahoe Keys is one fairly recent and ongoing problem that needs dealing with to help protect the native biota and unusual water quality of our treasured resource, Lake Tahoe. I would support developing measures in the Keys that would do just that. In addition, a robust program and financial long-term funding	Bob Richards

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	need to be acquired for many years to come. Without this, the program will be in jeopardy very quickly. I support your efforts to end, or at least control, this invasive species scourge in the Tahoe Keys.	
351.01	The purpose of this letter is to show my SUPPORT for proceeding with the test use of Herbicides to eliminate the invasive plant species in the Tahoe Keys Lagoons. The Tahoe Keys has been a home for our family since 2019. We are pleased to hear the various agencies governing Lake Tahoe seem to be coming together to address the invasive plants issue at Lake Tahoe and the Tahoe Keys in particular in a collaborative manner and hope that the efforts continue to move forward with efficient and costeffective methods being considered and deployed. Based on the research that has been made available and looking at the other options that have proven to have minimal impact, at best, we feel the best option is to proceed with the testing of the use of Herbicides to control the invasive species of plants. This testing is imperative to fight the invasive plants allowing property owners in the Keys to enjoy the waterways AND most importantly helping reduce these invasive plants for Lake Tahoe. Please vote in favor of the herbicide testing and help us all KEEP LAKE TAHOE BLUE AND NOT GREEN!	Scott and Michele Cable
354.01	We need every tool in the tools box to tackle invasive species in the Keys. The proposed documentation and recommendation is a scientifically supported, and well-needed action to tackle the invasive species problem in the lake. It is a first and long overdue step to bring tools including herbicides that have been used in other locations to control invasive species to Lake Tahoe. We think of the Lake as a pristine ecosystem however with disturbances related to our changing climate, these invasions will expand and persist in the lake unless they are dealt with in this generation. The measurements we have taken recently in the nearshore of Lake Tahoe show some parts of the lake with reduced water quaky compared to Lake Mead. Some of these changes are due to invasive species like Asian clams and invasive plants. The	Sudeep Chandra

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	changes are here and we need to move proactively to contain and manage invasive species including the major source of the invasions coming from the Tahoe Keys. I support the science based actions to move forward with testing the use of multiple tools including herbicides to control invasive species in the Tahoe Keys.	
355.01	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with this carefully Control Methods Test (CMT), including the various requested methods. The science clearly indicates a major threat to water quality and the future ecosystem of Lake Tahoe. The status quo is not a solution – we need to act now to determine a management plan as the invasive weeds issue has been fought for decades in the TK lagoons with the spread and density more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA-approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem safely and protect the beauty and health of our entire lake. Thank you. The CMT project has been thoroughly reviewed at the federal, state and local regulatory levels, by independent university scientists, and by concerned stakeholders. It includes UV-C lights, bottom barriers and EPA approved (federal and state) aquatic herbicides proven safe throughout the United States for years. An approval will allow this collaborative effort to move forward.	Terry Timi Fisher
362.01	I wanted to voice my opinion for the LRWQCB to approve the Control Methods Test, including the herbicide option for Tahoe Keys to fight against invasive weeds it its waterways. My husband and I are property owners since the early 70's and built a family home in late 80's. The HOA has spent countless hours and money trying to fight this issue. While I do not believe that this issue started in the keys waterways it is a area where there were ideal conditions for it to grow. We have tried many old and current technologies to combat this problem but everything seems to say herbicides is a must to combat this if you want any chance to win this fight. These herbicides have been used all over the	Ann Meyers

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	country and I do not see any downside in its use so please expedite this permit and help be a solution to the problem. My husband was a Navy man and loved to boat and swim in the lake. We had eight children who spent most of there days on vacation swimming in the Keys when you could drink the water. I want to see other families have the same enjoyment so please, please approve the herbicide use to be part of the solution and not a anchor around our necks.	
364.01	I have been a Member of the Tahoe Keys Association since 1977 and my main concern is for the future to preserve the Lake for my Children and Grandchildren We have come to Tahoe over the years and look forward to spending more summers and winters. We are concern for the continued long-term health of the lake. Please consider and support the TKPOA'S application. To help preserve the lake for generations to come after us . Please Keep our Tahoe Blue	Elevina Popp
368.01	Please finish the subject matter test, including herbicides, which have been used successfully in the USA and elsewhere. I'm writing this email to you as a 20- year part-time resident of Tahoe Keys. I've seen the continued degradation of the lagoons, and now the invasion of Lake Tahoe by the invasive species of weeds. The main source of the weeds is the Tahoe Keys, they come from many sources. Let's stop the Tahoe Keys weed problem NOW. This has been studied for decades! Time is running out!	Greg Peck
369.01	I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with a Control Methods Test (CMT), including all the requested methods, i.e. UV-C lights, bottom barriers, and herbicides. While the invasive weeds issue has been fought for decades in the TK lagoons, the spread and density is more serious than ever. Please allow the collaborative agencies to proceed with the requested tests using the latest technologies and EPA approved targeted herbicides that have been proven in lakes throughout the US to mitigate the problem and protect the beauty and health of our entire lake.	Hannelore Conrad

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372.01	As a full-time resident for 12 years in the Tahoe Keys, I have sadly seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. I urge the Lahontan Regional Water Quality Control Board to approve the Control Methods Test application from the Tahoe Keys Property Owners Association (TKPOA.) It is most important to allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this strategy. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours? The status quo is unacceptable and something needs to be done before these weeds get into our beautiful Lake Tahoe. The science and the facts support this control methods test, including the use of the EPA approved, safe herbicide. It's time to try something different before the infestation spreads further.	KATHLEEN BAILEY
373.01	I wanted to voice my opinion for the LRWQCB to approve the Control Methods Test, including the herbicide option for Tahoe Keys to fight against invasive weeds it its waterways. I am a long time owner in Tahoe Keys with a family vacation home. My family spent almost every vacation in Tahoe be it skiing in the winter or water skiing in the summer. I have seen the weed problem expand to a point where herbicides currently look to be a necessary part of the solution. I am a engineer and understand that some day there might be other technologies to fight this issue but they may be decades away. Please issue the permit so we can have a fighting chance. I was always taught to leave things better than when you arrived and I can not say that about our water ways at this time	Mel Meyers
378.01	Please approve the Control Methods Test (CMT), including the herbicide option. We've owned out Keys home since 2012 and love where we live, except for the invasive weeds (AIS). Since 2012, we've seen and participated in several in good faith	Randall and Denise Ferre

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	efforts put forth by the Tahoe Keys Property Owners Association (TKPOA) and the owners to help slow the growth and spread of the invasive weeks (AIS), from phosphate free fertilizers, raking around our dock and waterfront, weed mat program, keeping our props clean, and even clearing any fragments that collect on our paddleboard fin or kayak rudder. I've also seen our water quality team improve harvesting and skimming operations. Despite these sincere efforts, they are not enough, and I strongly encourage the use herbicides. I understand the proposed herbicides are federal and state EPA approved, and dissipate after a few weeks. I also understand the precautions of the application and containment during this time will result in no herbicides entering the lake itself. The test methodology appears to be thorough and safe. I sincerely believe continued delay of this effort will make the problem worse. Starting with the proposed CMT testing as proposed could lead to an effective and practical way to contain the problem with and will ultimately be more environmentally friendly than continued delays.	
380.01	I am a resident of Tahoe Keys, essentially since my dad built my house in 1975. I don't think he knew at the time about the far-reaching environmental impacts of the development. Also for so many years, nobody worried about bringing boats from everywhere and putting them in the Lake. The warmer water in the Keys was a perfect incubator for various invasive species-- so here we are. I am in favor of the approval of a permit for the CMT (controlled methods tests) project including the testing of herbicides. We need to get this under control before it affects the entire Lake.	Robin Sprague-Abbott
381.01	I support the proposed Control Methods Test (CMT) with the use of herbicides proposed by TKPOA. I have been visiting Tahoe Keys (and now a property owner) since 1970. The health of the Tahoe Keys waterways has exponentially been deteriorating over the last 5 to 10 years. The status quo is no longer sustainable to the health of the Tahoe Keys lagoons and more importantly to the health of Lake Tahoe. My concern with the explosive growth of weeds in the Tahoe Keys lagoons prompted me to	Ron Hoffman

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	recently join the Tahoe Keys Water Quality Committee. I am impressed with all the efforts that Tahoe Keys along with other partners have been doing to combat and come up with a plan to attack the vexing problem of Tahoe Key's aquatic weeds. I personally would never get behind anything that would harm beautiful Lake Tahoe. Unfortunately doing nothing isn't an option for the long-term health of Lake Tahoe. Our problem (Tahoe Keys) Is also the problem for our beloved lake. The naysayers can't come up with any viable options and aren't willing to get informed as to really understanding what the CMT is all about, as well as reviewing the science that has gone into coming up with a reasonable plan to combat Tahoe Keys weeds. I am a lifetime member of the Sierra Club and have become disillusioned and frustrated with their negative feedback regarding this project. Doing nothing isn't a plan! I encourage the Lahontan Water Board to allow the implementation the CMT	
382.01	Please find the attached letter indicating my support for proceeding with the testing of the use of Herbicides to eradicate the invasive plants in Tahoe Keys and help restore Lake Tahoe to its former condition. I can only help.....like climate change.....your actions are not too late.	Tom Cologna
382.02	The purpose of this letter is to show my SUPPORT for proceeding with the test use of Herbicides to eliminate the invasive plants in the Tahoe Keys Lagoon. I grew up spending summers at my family built in the Keys in 1977. I worked during the summers and vacationed with my daughters. I firsthand have watched the water quality in both the lagoon and lake deteriorate in the past fifty years and am concerned that further inaction will produce a situation that can't be corrected. Based on the research I have done through various sources; I feel the best option is to proceed with the testing of the use of Herbicides. This is imperative to fight the invasive plants allowing property owners in the Keys to enjoy the waterways AND most importantly help rid the lake of these invasive plants and reverse the deterioration that has occurred. Inaction and current methods already deployed have had a	Tom Cologna

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	minimal impact at best. Please help SA VE LAKE TAHOE!	
10.01	We support the test	David and Ann Pinkwasser
11.01	This is to voice our support for the ongoing herbicide treatment of the invasive algae at the TKPOA waterways. It is essential that this treatment, along with other methods, be implemented to control or eliminate this nuisance.	Jim and Eileen Thompson
15.01	I wanted to notify you of my support for the proposed herbicide test and the TKPOA-led effort to find a comprehensive solution to the invasive weeds in our water ways.	Robert Sari
16.01	The water ways are getting very bad especially with low water. I stop our boat entering the lake and do a final weed removal & put in bag. Please try the herbicide test in the interest of the lake & waterways.	Jim and Patricia Pinckney
22.01	As I am sure you know, it is critical that you act now to save our waterways in the Tahoe Keys. Please do what you can.	Leland Douglas
24.01	I am in total support for what the TKPOA is trying to do to control and remove the weed issue we have had for years.	N/A
31.01	Thank you for the opportunity to express to the Lahontan Board our sincere desire that you vote in favor of the proposed CMT in the Tahoe Keys. As 32 year residents of Tahoe Keys and 42 year residents of Lake Tahoe we know it is crucial that we eradicate all Evasive Species from Lake Tahoe. The CMT in Tahoe Keys will be a huge step towards that goal. Please vote in favor of the CMT!	Albert Chandler
34.01	I write this letter in support of granting permission to allow the control methods test in the Tahoe Keys. I have been on the Water quality committee of the Tahoe Keys since 2016. In that time I have been very involved in trying to eradicate and control the weeds in the lagoons, with the goal of keeping the weeds out of Lake Tahoe. I do not live on the lagoons but on Pope Marsh and am very concerned with maintaining the ecosystems of the lake and the marsh	Carra Rainey MacFarlane and John Johnck
37.01	Please allow all reasonable weed control methods to go forward in Tahoe Keys. We have had a home	Leland and Celia Douglas

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	there for over 25 years. The waterways were beautiful then. They can be again.	
40.01	My name is Warren Kaplan and I have owned a house in Tahoe Keys for 25 years. I am writing to express my support in favor of the small scale, “Control Methods Test.”Let me know if you need any other information from me.	Warren Kaplan
43.01	As homeowners within the Tahoe Keys at [redacted], please consider this email as indicative of our strong support of the proposed Control Methods test. We would welcome any and all efforts toward mitigating the noxious invasive weed problem in the Keys.	Brad Skepner
51.01	Please address our weed problem ASAP. We are working with others to get this up and going	Janet Baumann
54.01	I have been in the Tahoe Keys for 30+ years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Richard Moorhouse
55.01	We have been long time residence in the Tahoe Keys. The water in the lagoons has gotten worse every year and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests INCLUDING the testing of HERBICIDES!!	Joe and Patti Stefani
58.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Roy and Leslie Adams
82.01	Please vote YES, on TAHOE KEYS WEEDS CONTROL TEST using HERBICIDES.	John and Joanne Donmoyer
84.01	I support for the approval of permit for CMT (controlled methods tests) project including the testing of herbicides	Helen Gengras
88.01	I am writing as Tahoe keys condo owner to urge your approval of the control test. After years of trying to address the weed threat to Lake Tahoe, I trust the control test is a necessary step to effectively eliminate the weed invasion.	Richard Simon
94.01	I support the control methods test (CMT) and specifically the use of herbicides to fight weeds in the keys lagoon.	Tracey Buescher

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98.01	I want to express my support for using herbicides to control the weeds in the keys lagoons. I am a property owner in the Keys and I am worried about the spread of these weeds to the rest of the lake. Please allow the Keys to have the permits required to do the testing and hopefully the eradication of the weeds.	Kaveh Parsi
99.01	I support the control methods test (CMT) and specifically the use of herbicides to fight weeds in the keys lagoon	Unidentified Commenter
100.01	I support the approval of a permit for CMT (controlled methods test) project, including the testing of herbicides.	Michelle Wollmann
104.01	I am resident of Tahoe Keys. I support the weed control test.	Horace Meng
107.01	Please let us test herbicides in Tahoe Keys soon. The time to proceed is now. I have been a property owner in the Keys for about 15 years we have contributed to many study's etc.. It is time to proceed with herbicide testing now.	Carl Frederick
109.01	I support weed control testing in the Tahoe Keys. Please approve!	Bryan Welsh
110.01	I support the control methods test (CMT) and specifically the use of herbicides to fight weeds in the keys lagoon. Thank you for your time and efforts.	Joshua Willard
118.01	I support the control methods test (CMT) and specifically the use of herbicides in the Keys lagoons. It is apparent that the TKPOA has done a thorough job researching this matter !	Ronald Halleran
129.01	I am a homeowner at -[redacted]. I am in favor of/approval for continued work and testing for any and all solutions to our invasive weeds issue, including herbicides.	Heidi Roizen
130.01	I would like to let you know that I support the CMT project in the Tahoe Keys including the use of herbicides to control the weeds. I believe that use is necessary and warranted to address the problem.	Megan Mangiaracina
132.01	Please support the use of herbicides on the Keys weeds.	Dave Taylor
133.01	I am writing in support of the TKPOA Cotrol Methods Test Draft Permit including the Test of Herbicides to CONTROL the INVASIVE WEEDS in the Tahoe Keys. We want to protect Lake Tahoe and keep our waterways open. Not just Tahoe Keys	Troy Alexander

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	residents but for many others who use our waterways and enjoy the scenic beauty of Lake Tahoe via water. I request that the Lahontan Board Approve it as written without delay.	
134.01	I support the TKPOA control methods test draft permit, including the test of herbicides to control the invasive weeds in the Tahoe Keys and to protect Lake Tahoe. I request the Lahontan Board approve it as written without delay	Ann Pinkwasser
136.01	I, Angila Grausz, support the Tahoe Keys Property Owners Association, including the test of herbicides, to control invasive weeds in the Tahoe Keys, to protect Lake Tahoe. I request that the Lahontan board approve it as written without delay.	Angila Grausz
140.01	I support the TKPOA control methods test draft permit, including the test of herbicides to control the invasive weeds in the Tahoe Keys and to protect Lake Tahoe. I am requesting that the Lahonton board approve it as written as soon as possible.	Mike Sukau
141.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	George Hainsworth
143.01	My husband & I live in the Tahoe Keys in [redacted]. We have a sailboat in a slip here and are very concerned about the aquatic invasive species challenge. We urge your support and approval for a permit for CMT project, including the testing of herbicides	Elizabeth Hansen and Mel Smothers
144.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Jim Crecelius
146.01	My name is Ellen Flynn and I live {Redacted} Drive , in the Tahoe keys. I'm writing In support of the approval of permits for CMT (controlled methods tests) project including the testing of herbicides.	Ellen Flynn
147.01	I, Bradley Grausz, support the Tahoe Keys Property Owners Association, including the test of herbicides, to control invasive weeds in the Tahoe Keys, to protect Lake Tahoe. I request that the Lahontan board approve it as written without delay.	Bradley Grausz

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148.03	Please move ahead with all haste to do something about this problem. Theodore Roosevelt would remind us: "In any moment of decision, the best thing you can do is the right thing, the next-best thing is the wrong thing, but the worst thing you can do is nothing"	Dan Gill
150.01	I support the TKPOA Control Methods Test Draft Permit, including the Test of Herbicides to control the invasive Weeds in the Tahoe Keys and Protect Lake Tahoe. I request that the Lahontan Board approve it as written without delay.	Karen Thiemann
151.01	I support the approval of a permit for Controlled Methods Tests including the testing of herbicides in the Tahoe Keys.	Brooke
153.01	I support the TKPOA control methods test draft permit including the test of herbicides to control the invasive weeds in the Tahoe Keys and protect Lake Tahoe. I request the Lahontan board approve it as written without delay.	David Pinkwasser
154.01	We have been in the Tahoe Keys for many years. The water in the lagoons has gotten worse every year, and the weeds must be controlled! Please support the approval of a permit for Controlled Methods Tests including the testing of herbicides!	Bob Cliff
155.01	I love that you did this MIKE! We need people from all around the lake other than just Keys residents asking Lahontan to permit the use of herbicides. At our last forum at TKPOA there was a map showing all the different methods that will be tested across the lagoons. In front of our house will be a bubbler. Big deal. I'll see if I can find a copy and send it to you. It would be wonderful if you felt like encouraging your neighbors to follow your lead. Thanks again!	Name Annoymous
166.02	I confirm my support for the Tentative Resolution, Permit and MMRP. I do not agree with certain positions taken by the Sierra Club	Albert Chandler
167.02	Our home is our "On Golden Pond" retirement retreat, and we spend a lot of time on the water, on kayaks, and our 21' boat. Our children and grandchildren are avid Tahoe Keys visitors as well, and we want clean water for them too! The invasive weeds problem is getting worse and worse every year. I'm getting older and older and time is your enemy and mine in solving this water clarity	Wes Smith

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	problem. We participate in the forums and read all the TKPOA publications and planning on this issue.	
170.01	Attached is my letter of support for the Control Methods Test, including the EPA- and State-Approved herbicide option.	Terri Jinkins
178.01	After much due diligence I support the control methods test (CMT) and specifically the use of herbicides in the Keys lagoons. Its very clear the Tahoe Keys POA has done a thorough job researching this matter.	Jonathan Lynn
183.01	Please see attached comment letter in support of approval of the Resolution Granting Exemption to the Aquatic Pesticide Discharge Prohibition and the WDR/NPDES Permit	Andrew Kopania
184.01	We are new to the Tahoe Keys community. We purchased our home about 1 year ago after years of visiting and saving. The number one most important feature that drew us to the Keys community was the access to the lake via the Keys channels. After going through a summer as an owner, our eyes are very wide open as to the problem of the invasive weed that is over taking the Keys. It is sad and very worrisome. We are shocked at how quickly the weed grows. We are very diligent about "raking" the weeds in our boat dock area and cannot believe that the weed just keeps coming and coming. We are also a family of year round swimmers and we would hate for the crystal clear waters that we love most about Tahoe to become infected by this weed. We are in complete support of the CMT and specifically the testing of herbicides. Whatever experts need to do to best understand the problem and then come up with a plan for resolution absolutely has our support.	Darcy and David Collet; Walt and Carol Ordemann
188.01	Please see my attached letter supporting the Tahoe Keys proposal to treat the invasive weeds.	Betsy Sommerfeldt
188.02	My name is Betsy Sommerfeldt. I am writing in support of the Tahoe Keys Weeds Control Test. I have lived in South Lake Tahoe 55 years. My husband and I have been boaters for many years and have witnessed the weed infestation issues they create for water enthusiasts as well as the lake clarity. I have followed the details of this project closely having been the Manager for Tahoe Keys Beach and Harbor for 15 years now. Our	Betsy Sommerfeldt, Manager TKBHA

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	Association works closely with Tahoe Keys Property Owners Association on many issues including water quality. Please consider approval of the TKPOA application. The herbicides proposed have been Federal and State EPA approved. Lake Tahoe deserves to be protected for our use and our future generations.	
192.01	We are writing to register our unequivocal support for the testing of herbicides using the Control Methods Test (CMT) to combat the invasive weeds in Tahoe Keys. We have been residents since 2014 and have seen the progressive deterioration of water quality and massive spread of weeds in Tahoe Keys. We strongly believe all measures should be taken to find a solution including but not limited to the testing of herbicides.	Alex and Cathy Mendez
198.01	My letter attached. Please take action in favor of this request	Arlene Olson
214.01	I Support the TKPOA Control Methods Test Draft permit including the test of Herbicides to find the Best way to control the weeds in the Tahoe Keys and protect Lake Tahoe.	Chris Disney
215.01	I, Christopher Newton, support the TKPOA Control Methods Test Draft Permit, including the Test of Herbicides to control the invasive weeds in the Tahoe Keys and protect Lake Tahoe. I request that the Lahontan Board approve it as written without delay.	Christopher Newton
217.01	Please approve the Tahoe Keys Home Owners recommendation for weed control from the invasive weed species for our lake. As an owner of a townhouse at the Keys for the last 50 years, we need to take whatever action is necessary to preserve our lake now and for the future.	Cynthia Ng
219.01	My family first moved to Tahoe Keys in 1965. In the past many years, I have noticed an accelerated invasive species weed problem and it is the problem is getting worse. I recommend allowing the testing of herbicides as recommended by the professionals in the field.	David Borges
220.01	A have been a resident of Tahoe Keys for over 35 years. I am writing in support of allowing testing of herbicides to control the invasive weeds that have taken over our channels and lagoons. In my lagoon which is a dead end they have tried many methods	David W Olivo

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	to control the weeds including bottom barriers. As soon as the bottom barriers are removed the weeds are back even thicker and higher. I cannot even take my jet ski one block to the lake without it being choked with weeds. I must then get off the jet ski and remove the massive clog in my intake vents. This must end. Please allow the testing of herbicide testing to control the invasive weeds.	
221.01	Pls find attached my letter of support for your efforts re same.	Deb Howard
228.01	I strongly support approval of the Tahoe Keys Combined methods test including the use of a one time herbicide application.	Emily Frey
245.01	I live at {redacted} and I am in favor of using herbicide to control invasive grass weeds	James Machado
249.01	I support the TKPOA using herbicides and the Keys weed control test program they approved for helping eliminate weeds in the Keys lagoons.	John Raleigh
253.01	I fully support using herbicides to get rid of the milfoil problem.	Karen de Vos
256.01	I suppport the Tahoe Keys Weeds Control Test. I have a slip with a pontoon in the Tahoe Keys Marina and would like to see the invasive weed crisis remedied.	Kelli McAlister
257.01	APPROVED	Kenneth C. Zurek
269.01	I'm a townhouse owner and part time resident in Tahoe Keys. I am asking you to approve the safe aquatic herbicides testing and use in our beautiful lake. It's important to keep invasive weeds out of our lake and keep the lake blue.	Loretta Stein
271.01	Please note my APPROVAL response to weed control testing. As a long time resident of Tahoe Keys, the weeds spreading into Lake Tahoe are most concerning	Lynne Barrett
277.01	Approval	Matthew Whetton
296.01	Looks good to me.	Stephen Oaks
315.01	We have owned a home in Lake Tahoe for 21 years. It may be a second home but we love spending time there. We just sold our boat but we know how important it is to protect the lake. We support the TKPOA's application which will hopefully control the invasive weeds..	Dennis and Kristine McGhie
316.01	I support the control methods test (CMT) and specifically the use of herbicides to fight weeds in the keys lagoon	Diana Sehmsdorf

Comment Number	Comment	Commenter
318.01	We urge the LRWQCB to approve the limited Control Methods Test as proposed, using the approved herbicide options.	Gordon and K Lovett
319.01	We respectfully request the use of the tested safe herbicides be used in the lagoons to save these waterways and ultimately the clarity of Lake Tahoe. With the lake water levels and the lagoon water levels at lower levels than usual, it seems like a good time to give the herbicides a chance.	Jane Carter
320.01	Therefore, I am writing to request that the Lahontan Water Board approve a permit to allow TKPOA to proceed with this carefully Control Methods Test (CMT), including all the requested methods.	Jenn Boyd Lemming
323.01	We have been concerned about the weeds, and it is a complicated subject. We support the application of the TKPOA. We believe this is the best way forward. Thanks for listening, and your time.	Joe and Cheri Trebbien
325.01	Clearly invasive weeks in Lake Tahoe is something that everyone wants to prevent, control and stop. Currently Tahoe Keys Property Owners Association has an application to conduct a test of invasive weed control methods. I am writing to encourage you to approve the test.	John Shield
326.01	I am respectfully requesting that the Lahontan Water Quality Control Board issue a permit for the Control Methods Test. . . .	Karen MacDonald
334.01	The Purpose of this letter is to show my SUPPORT for proceeding with the test use of Herbicides to eliminate the invasive plants in the Tahoe Keys Lagoons.	Matt Cologna
336.01	We understated the time critical challenge of controlling aquatic weeds in the Tahoe Keys Lagoons, and fully support the actions and monitoring proposed in the Aquatic Weed Control Method Test project(Project)	Tori Walton
338.01	I am in favor of this, Nancy H Appelblatt MD, FACS, FAASM	Nancy H Appelblatt
339.01	My wife, Pat, and I are submitting this email along with its attached Word document to respectfully request your support of the proposed Control Methods Test, including the herbicide option for the Tahoe Keys area of Lake Tahoe. Your time and consideration for this request will be greatly appreciated.	Pat and Paul Klempner

Comment Number	Comment	Commenter
344.01	I urge the LRWQCB to approve the Control Methods Test, including the herbicide option.	Peter Wolcott
356.01	I am 100% in favor of proceeding with the Control Methods Testing. My family has enjoyed Lake Tahoe's rich boating and recreational opportunities for decades. The accelerating growth of invasive plant species is alarming and threatens the entire lake not just the Keys.	Tom Banks
357.01	We support the use of herbicides to eradicate the invasive weeds in the Keys to help to preserve the quality of Lake Tahoe.	Warren and Carolanne House
358.01	This email is to support the weed control test as proposed by the TRPA and Lahontan staff.	Wayne and Maureen Lavengood
328.01	As the Lahontan Regional Water Quality Control Board ("Regional Board") is aware, noxious weed populations have been proliferating in certain areas along the shore of Lake Tahoe, which degrades water quality and disrupts natural aquatic ecosystems in the lake. Accordingly, these weed populations must be timely and effectively controlled to avoid continued or increased impacts to Lake Tahoe.	Kirk Wooldridge, Tahoe Keys Property Owners Association
186.01	Please see my letter to the board (attached) regarding support of the approval of a permit for the CMT project including the testing of herbicides.	Ann McCullough
166.01	I refer to my Comment letter dated 21 October 2021, recommending that the Tentative Resolution, Permit and MMRP be finalized and approved. I was aware of the views of the Sierra Club, as expressed in its 66-page letter to Lahontan Regional Water Quality Control Board dated September 3, 2020. I have since read three additional Sierra Club documents: Feb. 12, 2021 "Tahoe Keys Weeds Update", Tobi Tyler, Tahoe Area Group ExCom member, Sierra Club. Oct. 15, 2021 "Tobi Tyler: Herbicides in Lake Tahoe - a dangerous proposition". Oct.. 22, 2021 "Latest Update", Sierra Club I am a life member of Sierra Club (1954), but not working with the Sierra Club on the Project. I strongly support many of the projects of the Sierra Club.	Albert Chandler
341.08	• LFA treatment has been implemented in a 6-acre area in the Tahoe Keys lagoons since 2019, expanding to the West Channel in 2020. UV-C	TKPOA

Comment Number	Comment	Commenter
	treatment exposures have been tested at different exposure durations and depths since 2019. Thus far, results of both LFA and preliminary UV-C indicate that both, as stand-alone methods, will not bring AIP under control in the Tahoe Keys lagoons. 2021 summary reports on both methods are currently under way and will be available in early 2022.	
187.02	The TKPOA Board is Committed to the Project and Continuing the Collaborative Partnership - TK.POA began its efforts towards this Project in 2011 with the Tahoe Regional Plam1ing Agency (TRPA) and Tahoe Resource Conservation District (TRCD). Since 2011, TKPOA has expended close to $5 million on research, field data collection, consulting fees, new fragment collection boats, experimental testing of plant control methods, meetings with stakeholders, and participation in the regulatory review processes for the Project. Over $1 .2 million has already been paid as special assessments by the Association members thus far. Another $900,000 is slated for a third special assessment upon a Lahontan Board and TRP A Board approval of the full scope of the CMT Project including herbicides. If approved, the TKPOA Board is fully committed to implementing the Project as presented in the tentative permit and will continue its collaboration with its public/private partners including TKPOA, TRPA, TRCD, the League to Save Lake Tahoe, and others. These investments and collaborative actions demonstrate the TKPOA Board's commitment to finding a long-term solution that will protect Lake Tahoe and its beneficial uses.	TKPOA Board of Directors

Summary Comment 1.2

Herbicides are the only useful and effective method to control the AIP in the Tahoe Keys lagoons and the CMT must be approved as soon as possible. Current methods and control efforts are futile and needlessly expensive; testing nonchemical methods to control the weeds is a waste of precious time and resources. The methods we have are insufficient on their own due to the density of the weed infestation. The aquatic invasive plants have spread without control and we don’t have time for more tests to be done; the weeds need to be killed all at once. If we had tackled the problem when it was small, maybe then the nonchemical methods would have worked, but now we are too far gone.

The herbicides have been tested in other water bodies around the country and will be safe to be used in the Tahoe Keys.

Summary Response 1.2

It is important not to confuse a short-term test of herbicides with their application for long term aquatic weeds management. The project is designed to see if Group B (bottom barriers, UV, Diver assisted hand pulling, laminar flow aeration) aquatic weed control methods can be effective in maintaining and improving on the aquatic weed infestation reductions accomplished from testing Group A methods, including aquatic herbicides. Any future decision about long-term management of aquatic weeds could be based on the results of the proposed control methods test, but is not a component of this proposed project, and would be the subject of a separate public and environmental review process (for which public comment would again be taken) before proceeding.

The proposed project includes a one-time test of aquatic herbicides in limited areas of the West Lagoon and Lake Tallac. The NPDES permit Fact Sheet, Section II.B, states the intention of the CMT is to test a one-time treatment event utilizing the aquatic pesticide endothall and triclopyr in multiple small-scale test plots; the proposal is not a decision to deploy these chemicals for long-term aquatic weeds management. The proposed test of aquatic pesticides and nonchemical methods to control the spread of non-native target aquatic weeds is to test the effectiveness of the initial knock-down of the target aquatic weeds (Eurasian watermilfoil and Curlyleaf pondweed) and effectiveness of using non-chemical methods for management after the chemical treatment.

Comment Table 1.2

Comment Number	Comment	Commenter
14.01	Nuke the damn weeds! I'm all for trying a herbicide. While there may be risks in doing this, I feel the reward of maybe making a dent in the damn weeds is worth the small risk of using a herbicide! Gotta do what we gotta do!	Al and Cheryl Breitwieser
29.01	Please consider allowing Tahoe Keys to proceed with an aquatic weeds herbicide test. We have been trying other methods for years, and are very anxious to control the weeds, but nothing else seems to be working. We have owned our home in the Keys for close to 40 years, and want to do everything we can to keep Tahoe's water quality as pure as it can be.	Suzanne McCarthy
34.03	The Keys have been battling the infestation of invasive species since the 80s. Euarsian Watermilfoil was detected in the 80's. Curlyleaf pondweed was detected in 2003. Harvesting weeds and fragments has been occurring in earnest since	Susan Chandler

Comment Number	Comment	Commenter
	the early 90s. This has been successful in keeping navigation channels open but doe not control the growth of weeds, and probably makes the situation worse by allowing the fragments to spread and proliferate. Harvesting is not species specific, It gets rid of anything in the way of the blades, either invasive or natural.	
34.02	I write this letter in support of granting permission to allow the control methods test in the Tahoe Keys. I have been on the Water quality committee of the Tahoe Keys since 2016. In that time I have been very involved in trying to eradicate and control the weeds in the lagoons, with the goal of keeping the weeds out of Lake Tahoe. I do not live on the lagoons but on Pope Marsh and am very concerned with maintaining the ecosystems of the lake and the marsh. The reasons that I support the controlled methods test(use of herbicides) are 1. The Keys have been battling the infestation of invasive species since the 80s. Euarsian Watermilfoil was detected in the 80's. Curlyleaf pondweed was detected in 2003. 2. Harvesting weeds and fragments has been occurring in earnest since the early 90s. This has been successful in keeping navigation channels open but doe not control the growth of weeds, and probably makes the situation worse by allowing the fragments to spread and proliferate. Harvesting is not species specific, It gets rid of anything in the way of the blades, either invasive or natural. 3. Bottom barriers have been deployed but have not been effective in getting rid of the weeds. Muck forms on top of the barriers and then the weeds can grow on top of the barrier. They are difficult to install and need to be removed each fall. 4. UV light will probably be effective in the navigation shallows but can not reach areas around rocks, docks and shallows. It also is employed in a very small area at a time, a constraint that makes it impractical to use in an area of 172 acres. It also is not species specific and gets rid of the good plants along with the invasive species. 5. Diver hand pulling is very limited in scale in comparison to the size of the keys. This will be an effective way of controlling reinfestation after initial eradication of the invasive species. 6. Laminar Flow does a good job	Susan Chandler

Comment Number	Comment	Commenter
	of increasing the dissolved oxygen in the water and reducing the muck level but does not eradicate existing weeds. 7. Although not yet used in the Keys, I see the use of herbicides as a safe and practical way to solve the problem in the Keys and to prevent the spread of the weeds into the lake. The herbicides chosen for the CMT are approved for use by the California and federal EPA, are are widely used in California and the United States. They are species specific. Triclpyr will be effective eradicating Eurasian Watermilfoil and Endothall will eradicate Curlyleaf pondweed, Eurasian Watermilfoil and Coontail. Both have a half-life of less than 10 days and will be undetectable within 21 days. The application and degradation of the herbicides will be professionally monitored. I encourage the Lahontan Water Board to allow the implementation of the controlled methods test. This will allow the Board to determine the best way to eradicate the weeds in the Keys and prevent their spread into Lake Tahoe.	
34.03	The Keys have been battling the infestation of invasive species since the 80s. Euarsian Watermilfoil was detected in the 80's. Curlyleaf pondweed was detected in 2003. Harvesting weeds and fragments has been occurring in earnest since the early 90s. This has been successful in keeping navigation channels open but doe not control the growth of weeds, and probably makes the situation worse by allowing the fragments to spread and proliferate. Harvesting is not species specific, It gets rid of anything in the way of the blades, either invasive or natural.	Susan Chandler
34.04	Bottom barriers have been deployed but have not been effective in getting rid of the weeds. Muck forms on top of the barriers and then the weeds can grow on top of the barrier. They are difficult to install and need to be removed each fall.	Susan Chandler
34.05	UV light will probably be effective in the navigation shallows but can not reach areas around rocks, docks and shallows. It also is employed in a very small area at a time, a constraint that makes it impractical to use in an area of 172 acres. It also is not species specific and gets rid of the good plants along with the invasive species.	Susan Chandler

Comment Number	Comment	Commenter
34.06	Diver hand pulling is very limited in scale in comparison to the size of the keys. This will be an effective way of controlling reinfestation after initial eradication of the invasive species.	Susan Chandler
34.07	Laminar Flow does a good job of increasing the dissolved oxygen in the water and reducing the muck level but does not eradicate existing weeds.	Susan Chandler
34.08	Although not yet used in the Keys, I see the use of herbicides as a safe and practical way to solve the problem in the Keys and to prevent the spread of the weeds into the lake. The herbicides chosen for the CMT are approved for use by the California and federal EPA, are are widely used in California and the United States. They are species specific. Triclopyr will be effective eradicating Eurasian Watermilfoil and Endothall will eradicate Curlyleaf pondweed, Eurasian Watermilfoil and Coontail. Both have a half-life of less than 10 days and will be undetectable within 21 days. The application and degradation of the herbicides will be professionally monitored.	Susan Chandler
34.09	I encourage the Lahontan Water Board to allow the implementation of the controlled methods test. This will allow the Board to determine the best way to eradicate the weeds in the Keys and prevent their spread into Lake Tahoe	Susan Chandler
38.01	I am writing to urge the Board to approve testing of herbicides for the control of invasive aquatic species in Tahoe Keys. I have owned property in the Tahoe Keys since 1966 and have had a residence there since 1978. Over those many years I have seen the quality of the water ways decline significantly, especially during the last few years. By my assessment, control methods to date have been ineffective. Herbicides should be used only in ways that protect the sanctity of the Lake but they must be tested to improve the quality of the Keys lagoons. I have studied the opposing arguments and find them emotional, and inconsistent with the current scientific methods and practice. Please approve herbicide testing for invasive aquatic species tcontrol in the Keys waterways.	William Green

Comment Number	Comment	Commenter
39.01	As 45 year residents of Tahoe Keys, we have watched the weed infestation of our lagoons become worse each year. Past methods of control have all been ineffective to the point that weed growth is putting the Lake in jeopardy. The idea of chemicals near the Lake is morally anathema to some as "chemicals" are considered "bad". What is being proposed is and exhaustive study of a couple of extremely selective agents that have proven both safe and effective in many areas. This study will be rigorously accomplished over a number of years before any widespread application of controls can be used. Regretfully, we will probably not live to see the benefits of the final result, but the Lake deserves our best scientific approach. Remember, the Lake is mostly composed a combination of two very important chemicals, hydrogen and oxygen. We heartily support the test of another set of potentially helpful agents.	Richard and JoAnne Beck
42.01	I very much support the use of herbicides in the Tahoe Keys. We used to live in Oshkosh, WI on the channels (keys) off of Lake Winnebago. We had the same issue with invasive weeds until they began to use a herbicide pre-immergent that would sink to the bottom and kill the weeds before they grew. Within just a few years the weed problem was eradicated. We would use the water from the channels to irrigate our lawns with no adverse effects. There was also wildlife present which experienced no adverse effects. The herbicide used was ok'd by the WI DNR and was perfectly safe. Please approve the study to save the Keys and ultimately benefit the lake as well.	Mary Fay Pinnow
53.01	My wife Susan and I live in Tahoe Keys as full-time residents. We acquired our land-locked lot on Pope Marsh -{redacted} in 1992. Susan has been on the Water Quality Committee since 2016. Aquatic Invasive Plants (AIP) are a problem throughout Lake Tahoe, not just in the Tahoe Keys Lagoon. Hopefully, the CMT will lead to use of herbicides (together with non-chemical treatment methodologies) throughout Tahoe Basin. Herbicides are employed at over 49 other sites in California	Albert Chandler

Comment Number	Comment	Commenter
62.01	I would like you to vote Yes in allowing the Tahoe Key go ahead with the chemical week control of the lagoons. For the last 30 years we have seen the weeds get worse every year, dispute all the harvesting and other methods used for control. The weed are now spreading through out Lake Tahoe due to inaction of use of chemical treatment which would have stopped it years ago. University of California at Davis spent a lot of time developing this chemical for the Tahoe Keys, but it has been held up on use to in action by various agency's. If we do not stop it now it will soon pollute the whole lake as we have seen with other lakes. Please vote yes to use the chemical that was developed for this purpose.	Gary Schenck
79.01	My name is Michael Forster and I live at {redacted} in Tahoe keys. I have lived here since 1984. During that time we have gone from no weeds to the horrible situation we are in now. Obviously what we are doing is not working. We need to move on to the next step. I encourage you to approve the permit for the CMT including the use of herbicides.	Mike Forster
80.01	I would like to speak in support of chemical treatment for the Keys Lagoons which are currently under consideration. We have had a boat slip in the Keys each season for the last twelve years. We have witnessed first hand the wasted time and efforts to this point. Just do it!!	Lee Eaton
82.02	Lahontan should be ashamed of them self. The Tahoe Key's have been trying to get rid of the weeds in their lagoons for over twenty years. Trying different methods, with out success or any help from Lahontan Regional Water Quality Control Board. It is time you sept up to the plate and OK the use of HERBICIDES in our lagoons in the Tahoe Key's water ways. Let us all work together to solve this problem and to make the Tahoe Key's water ways clear and blue again. Please OK the TAHOE KEYS WEED CONTROL TEST using HERBICIDES.	John and Joanne Donmoyer

Comment Number	Comment	Commenter
83.01	I have lived in Tahoe over 50 years and 40 of those years have been in the Keys. I have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides	Adele Lucas
86.01	Please allow testing and the use of herbicide by TKPOA to control the awful invasive weed problem in the Tahoe Keys channels. It's the only way to get this under control in a timely manner.	Jeff LaRoche
91.01	Please vote YES, on TAHOE KEYS WEEDS CONTROL TEST using HERBICIDES. The Tahoe Key's have been trying to get rid of the weeds in their lagoons for over twenty years. The weed problem is winning the battle and has taken over our lagoons and even worse, is infiltrating Lake Tahoe. Trying different methods without success or any help from Lahontan Regional Water Quality Control Board is not helping to solve this problem. Although the bubble nets are a step in the right direction, the Keys needs MORE control. It is time you step up to the plate and OK the use of HERBICIDES in our lagoons in the Tahoe Key's water ways. Let us all work together to solve this problem and to make the Tahoe Key's water ways clear and blue again. Please OK the TAHOE KEYS WEED CONTROL TEST using HERBICIDES	Carole Songey
92.01	I am writing to you to express my support for the CMT (control method testing) project in the Tahoe Keys area, including testing and use of herbicides to abate the weed problem. Please consider this option as no other methods have been working over the last several years.	Laura Cefalu

Comment Number	Comment	Commenter
103.01	I am writing to ask you to approve the Tahoe Keys CMT with the use of herbicides. As a property owner since 2011 I have seen the invasive weed problem become markedly worse. Our waterways that once were safe for swimming now have yearly algae blooms and the milfoil and pondweed is taking over. Other weed control methods have proven ineffective and something must be done to protect the Lake from these weeds. Thank you	Art Jacikas
105.02	I support the proposed Control Methods Test (CMT) proposed by TKPOA, and currently being evaluated by the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency as part of the permitting process. As proposed, I believe the CMT is the best mix of methodology to truly analyze the safety, efficacy and cost of controlling the aquatic invasive plants in the Tahoe Keys.	Tom Spencer
106.01	I have lived in Tahoe almost 20 years. I have been involved with our water quality committee and on our board. I have seen first hand the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let’s give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides.	Bonnie Halleran
112.01	I support the TKPOA Control Methods Test as written, that must include the Test of Herbicides. All current control efforts are not working: (1) the bottom cover mat system is totally impractical for the whole of the Keys, (2) the Ultra Violet Light system simple doesn’t work. They tried this system in front of my home on Christie in a rather confined area and a few months later I had to pay a service to remove the weeds that had grown back (3) Pumping the water through the keys does help the overall water quality but it doesn’t get rid of the	Dean Moser

Comment Number	Comment	Commenter
	weeds, (4) What does work is the herbicide that has been proposed. Before that herbicide became illegal (as I remember maybe 10 years ago), I used that product in front of my home for about ten years. I applied it in the spring and again in August of each year and I had no weeds. Further, there was a crawdad family that lived in the sand between the bulkhead and pier and they were there until about two years ago. Also I had more fish in that area than I do now.	
119.01	As residents of Tahoe Keys, we support the use of herbicides to deal with Aquatic Invasive Species (AIS). The problem is only growing despite all the efforts to control the invasive weeds in Tahoe Keys, which are negatively impacting all of South Lake Tahoe and the entire Lake Tahoe area. It's time to put tighter controls on the problem	Sherri and Randy Glein
120.01	My wife and I are in favor of the CMT testing. The problem only gets worse with time! It is evident that past control methods have not stopped or really even mitigated the problem. We need a long term solution and testing needs to be done to attempt to eradicate EWM and CLP infestations. If a pesticide in conjunction with other treatments will greatly mitigate or eliminate the investations without data to demonstrate issues for the Lake then by all means we need to implement CMT.	Jeff Williams
121.01	We are in favor of the use of herbicides to control the weeds in Tahoe Keys. We have been owners of -{redacted}. since 2012. We have observed the weed mowers, divers hand pulling the weeds, tests with dyes, the use of barrier mats. Nothing has controlled these invasive weeds and the water quality has declined dramatically. The use of herbicides has been successful in other areas and, with all appropriate caution, we are in favor of the use of herbicides to control the weeds in Tahoe Keys and reduce the spread into beautiful Lake Tahoe.	Bill and Mary Ann Provence
122.01	I have owned the property at {redacted}in the Keys for 21 years now. Over those years we have seen this invasive weed issue grow out of control. So much money spent on barriers and meetings and half hearted attempts to control these weeds have produced nothing. They get worse each and every	Leslie Warc

Comment Number	Comment	Commenter
	year. We need to start an herbicide test as soon as possible. Other states with the same situation have had much success with herbicides. It's time to actually do something now.	
123.01	I own and live in a home in the Tahoe keys. I have witnessed the degradation of our waters due to the weed infestation. I am aware that we have spent hundreds of thousands of dollars to try to rectify this parasitic growth. It seems that harvesting is a futile attempt at control. I have read many reports concerning this property, and I am convinced that the use of herbicides is the only solution to a growing problem. My enjoyment of living on the water has been severely impacted by this an I implore the powers to be, to immediately approve the use of herbicides with the Tahoe Keys waterways.	Michael Paskow
124.01	I am a farmer who has numerous holding ponds up to140 acre foot of water. I battle weeds in these ponds and have found the only way to control them is with herbicides. I am in total support of their use. In my opinion that is the only option. I have not seen any negative effect to fish or other wildlife such as ducks.	Bob Kamps
139.01	My family and I have been long term residents of Tahoe Keys and have seen the progression of aquatic invasive species over the past 30 years. The problem needs to be addressed before it gains a strong foothold in Lake Tahoe….The current options are having negative results…We respectfully request that you support the approval of the permit for controlled methods that include testing of herbicides	Morgan and Marsha Petiti
148.02	Years of inaction, or ineffective action have left us with an established aquatic presence that we will never remove. Degradable herbicides with half-lives measured in weeks will have no permanent effect on our lake, unlike the permanent change from the invasives. The experts even suggested this as a possible way to totally eliminate the infestation when it first appeared.	Dan Gill

Comment Number	Comment	Commenter
149.01	Please allow the use of an algicide/herbicide in the lagoons of Lake Tahoe's Tahoe Keys. While we all know that the Keys, as it is known, should never have been built, it is here to stay, and we need to treat the problem, weeds invading the waterways and shores. Boats entering and exiting the Keys increase the problem with the spread of the weeds out into the lake. Let's keep the weeds contained and eliminate them. Allow the Keys to use an algicide/herbicide that has been proven successful in other waterways.	Leilani Connolly
165.01	Please consider the use of herbicides in Lake Tahoe. The aquatic invasive weeds are a serious threat to Lake Tahoe's pristine water quality. Lake Tahoe is a bustling recreation area. Lake Tahoe's clarity is known world wide and attracts visitors far and wide. The weeds threaten Lake Tahoe's native ecology.. The problem needs to be controlled as soon as possible, as the aquatic invasive weeds are becoming worse. The current methods of control are unacceptable. Please support the effort to test treatment methods with a lasting solution, namely herbicides.	Tom Barnes
167.01	I am a long time resident of Tahoe Keys in South Lake Tahoe and have witnessed the terrible invasive weed situation in Tahoe Keys over the years. The Homeowners, like myself, through our TKPOA association, have been working on this problem for more than a decade without success. The huge financial investment we've made by using our "mechanical harvesters" and ultra violet light treatment or diver assisted suction -- don't appear to be working at all, despite our best efforts! We need your help by approving the Control Methods Test, including the herbicide option	Wes Smith
180.01	We are writing in support of, and to encourage the Lahontan Regional Water Quality Control Board to authorize the testing of Herbicides in the fight against the invasive weeds that have overtaken the lagoons within The Tahoe Keys. Our home on {redacted} Drive has been in our family since it was constructed 48 years ago, and we appreciate all the effort that has been made over the past 25 years to try and eradicate or control the Invasive Weeds. However, for all the time and money spent, these	David and Catherine Gay

Comment Number	Comment	Commenter
	past efforts have not been successful. This why we now support and encourage the use of Herbicides to target the invasive weeds, which treatment has proven to be successful in other part of the United States.	
200.01	Lake Tahoe faces a serious threat from aquatic invasive species. My husband and I own a home on one of the lagoons in the Keys at Lake Tahoe. We are very concerned that if this weed is not controlled now it will not only harm the lagoons that feed into Lake Tahoe, but will eventually cause great harm to one of our national treasures. We urge the LRWQCB to approve the Control Methods Test, including the herbicide option. As the plan has been described to us the herbicides proposed for the test are federal and state EPA approved, and the degradants appear to be relatively harmless after a few weeks. The test methodology appears to be thorough and safe. The TKPOA has been working on this problem for more than a decade without success. The other treatment alternatives – ultra violet light treatment or diver assisted suction -- don't appear to be practical or cost-effective in the turbid water of the lagoons. Herbicides have been used successfully in other parts of California. It's time to try something different before the infestation spreads further	Barry and Susan Porter
205.01	I am a 25 year Keys resident living on the lagoon side of {redacted} drive. I have watched and supported the numerous trials at weed control. Most of them are totally ineffective and seem impractical to implement even if they were effective. Everything I have read says that herbicides are safe and do the job. I am totally in support of moving ahead with herbicides.	Brian Peterson
230.01	I have lived here in Tahoe Keys area for almost 50 years and I said something to Tahoe Keys office in 1985 when I lived in the Keys that we need to do something about these weeds and got negative feed back. I move to Tahoe Island area now and still see this problem worst than ever. What ever we are doing for this problem is not working… I understand there is a herderite that can kill or stop the spread, lets try it in a larger scale and try to get	George P Wash

Comment Number	Comment	Commenter
	on top of this problem. I don't think we'll get rid of this weed now, but doing nothing…that's crap!	
233.01	I approve the herbicide testing for the Tahoe Keys lagoons and Lake Tallac + the Weir. I was born in Tahoe and I have lived here my entire life, 1966 to present. The Aquatic weed problem in the Tahoe Keys needs urgent action, cutting them with machines, ultra Violet light and divers hand pulling are not a solution. The weeds in the Keys need to be controlled or eradicated to prevent them spreading to the larger Lake Tahoe now and in the next years or decades. I currently live in Tahoe Sierra (Sierra Tract) with my wife and 7 year old son. We own our home. Too many years have gone by with no trying any small area a test zone yet money has been allocated over & over. I have personally seen the weeds growing at many beaches on the south shore, yet I have seen very little action to remove them (TRPA, League to Keep Tahoe Blue & Lahontan) local agencies have not done their job effectively when we have had drought years, get out their and pull the weeds out of the lake area that now exposed due to low water or drought. Some weeds near Regan Beach and the outflow if the Upper Truckee river are large bushes, 10' tall. It's time for this current Board of Lahontan directors to say YES I APPROVE. No more studies!!! These herbicides have been used in many waterways and lakes in California and all over the country with no problems or repercussion. Please vote to Approve.	Greg Turle
248.01	To Whom it May Concern - Please be the one who finally saves Lake Tahoe and Approve this already proven Herbicide. Politics have almost killed the lake and the use of herbicides is absolutely vital in helping to save the lake. Take this rare opportunity and approve this method before it is to late and trust me it is almost to late. Get it done and be proud! Thank you!	John Dillie
255.01	We echo Susan Wolcott's sentiment and urge the Lahontan Regional Water Quality Control Board to	Kate Hebert and Lindsey Schultz

Comment Number	Comment	Commenter
	approve the Control Methods Test, including the herbicide option. We have a responsibility to adopt actions and policies that are effective in addressing a problem that has plagued the Tahoe Keys for over forty years. Non-chemical measures have been found to be inappropriate and ineffective. It is our sincere hope that the LRWCB meets its goal of reducing AIP biomass and the level of infestation so that the weeds may be controlled without chemicals. We understand and accept that the introduction of herbicide is indicated to help reduce biomass to achieve a level that can be controlled without chemicals. Best of luck and we look forward to moving towards a solution to this very real problem within our community and our region	
300.01	I have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. It truly is very sad. PLEASE, PLEASE allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let's give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT with herbicides.	Steve Wallen
302.01	Our family has owned our home in Tahoe Keys for 35 years, and we are extremely concerned over the degrading water quality both in our lagoons and in Lake Tahoe itself. Please allow us to test the use of herbicides to control the weeds. These herbicides have been used safely and effectively in other areas, so it seems reasonable to allow their use in Lake Tahoe as well. We cannot let the lake water quality continue to degrade, so all remedies should be considered.	Suzanne McCarthy
331.01	Based on the Research i have done throught Various sources; I feel the best option is to proceed with testing the use of Herbicides. This is imperative to fight the invasive plants allowing property owners in the Keys to enjoy the waterway AND most	Kris Cologna

Comment Number	Comment	Commenter
	importantly helping get rid of these invasive plants in Lake Tahoe	

Summary Comment 1.3

Support of the small-scale testing of herbicides in the Tahoe Keys Lagoons where the data can be evaluated and promote a thorough evaluation of the use of herbicides to treat the AIPs. We need more information on using chemical methods in conjunction with non-chemical methods in a scientific, balanced, and cautious approach.

Summary Response 1.3

The proposed CMT proposes the use of chemical products that are registered and approved by federal and state agencies for use in aquatic environments. Although aquatic herbicides have been demonstrated to be effective at reducing aquatic plant populations, efficacy of different herbicide products in the unique environment of the Tahoe Keys Lagoons has not been demonstrated and evaluating them simultaneously with and in conjunction with chemical methods will further knowledge of what methods can effectively reduce aquatic invasive plants in the Tahoe keys. See also summary response 1.1.

Comment Table 1.3

Comment Number	Comment	Commenter
17.01	I am a resident of Tahoe Keys. After reviewing materials and plans at the recent AQI open house, I am in favor of the proposed multi-pronged plan to evaluate several remediation methods. It seems well thought out, balanced, and cautious, especially in the evaluation of herbicides. Please support the plan.	Dan West
25.01	I fully support the Control Methods Test as proposed. I live in Tahoe Keys and know first hand the scope of the problem and how it is not only compromising the quality of the water in the Tahoe Keys lagoons but threatening the ecosystem and pristine waters of Lake Tahoe. I believe it is important to test all the proven technologies from around the world, including herbicides. It is my understanding that the testing is being carefully planned and will be closely monitored and controlled. We need to approach this in a scientific way so we know what is effective and what impact each method creates. We need better information	Nina Belcher

Comment Number	Comment	Commenter
26.01	I am very concerned about the proliferation of aquatic weeds in the Tahoe Keys lagoons, and the increasing spread of those weeds into Lake Tahoe. The current mitigation methods do not seem to be making sufficient progress. We do our part to minimize impact by manually removing weeds along our property line, but this practice seems to dislodge more fragments, which can then be carried into the lake. We participated in the TKPOA bottom barrier program during the summer of 2020, but these were difficult to maintain and did not work particularly well. I believe new measures need to be taken to combat the continued spread of weeds, particularly during drought periods, which have accelerated their growth. I support testing of alternate weed control methods, including the cautious use of aquatic herbicides.	Craig Cummings
33.01	I am in support of the small scale "Control Methods Test" for the AIS issue in the Tahoe Keys	Craig Cummings
52.01	I am in favor ok the small herbicide test in the Keys lagoon	Pat Disney
262.22	As the DEIR/S points out, the Project would apply lower concentrations than what is allowed by EPA. This DEIR/S would also only approve one application – not ongoing applications, even though that is allowed by the EPA. Similar lake environments use chemicals year after year, which the League currently does not support for Tahoe. The Project does not even consider this and is very clear that one-time use of chemicals is all that is being tested. This test will give us the information to develop a longer term plan that will then have to go through another rigorous environmental review so we make it clear that this test does not “open the door” to future chemical use. Perhaps the Project can provide another example of Tahoe’s innovation in addressing environmental challenges that can be used as a model elsewhere in the world.	League to Save Lake Tahoe

Summary Comment 1.4

I disagree with the activist groups who are against the CMT and believe the information being dispersed by these groups is inaccurate or misleading. There are many groups who care for Lake Tahoe and are in favor of the CMT and we hope Lahontan can side with them. TKPOA has done the best job they can and have spent great amounts of money to solve the issue of weeds in the Keys.

Summary Response 1.4

Comment noted. The Water Board has provided the opportunity for public comment as specified in its notices. Only timely submitted comments will be considered by the Water Board.

Comment Table 1.4

Comment Number	Comment	Commenter
44.06	Some political activist groups have tried to paint a picture of the TKPOA being an irresponsible community on Lake Tahoe. In fact, some of these activist groups spread outright myths and misinformation on the internet encouraging those with a hatred of the Tahoe Keys to further spread their message, thereby creating more vitriol. I would hope the deciding agencies do not fall for the pressure that these activist groups are bringing to this process. The Lake Tahoe marinas and boating communities (including the Tahoe Keys) have worked very hard to combat the spread of aquatic invasives, and have worked diligently with the agencies and other stakeholders to build a control plan to be tested. Please follow-the-science!	Tom Spencer
53.04	I am aware of the views of the Sierra Club, as expressed in its 66-page letter to Lahontan Regional Water Quality Control Board dated September 3, 2020. To my knowledge, it has not been updated. I disagree with most of the conclusions expressed by the Sierra Club, and may respond in a separate comment letter.	Albert Chandler
166.04	I do not agree with certain positions taken by the Sierra Club. The one-time test of two herbicides (Triclopyr and Endothall) is not described by the Sierra Club. These two herbicides have been chosen because they target the invasive aquatic weeds, allowing native species to survive. They have limited life, and will morph into harmless compounds. See Table 1: "Allowable and Proposed Herbicide Application Rates and Application Methods", at page 10 in the Staff Report, April 2021.	Albert Chandler
166.08	The TKPOA signed a Shoreline Plan MOU with TRPA dated Oct. 7, 2021, which brings it into compliance with the Shoreline Plan. The TRPA and TKPOA have agreed to work together with regard to regulation of improvements, structures and activities in the lagoon areas of TKPOA. The Sierra Club has not mentioned the MOU. Adoption of the MOU brought TKPOA into compliance with the TRPA rules and regulations, which will ensure continuing efforts	Albert Chandler

Comment Number	Comment	Commenter
	of TRPA in helping to secure additional financing for the control of AIP in the Tahoe Keys Lagoons.	
63.06	Follow the science and resist the external pressures of political activists, fear and misinformation that threaten and misdirect the future of Lake Tahoe and the Tahoe Keys. I would hope that the deciding agencies would aggressively seek science-based approaches to solving problems for Lake Tahoe. The Lake Tahoe marinas and boating communities (including the Tahoe Keys) have worked very hard to combat the spread of aquatic invasives, and have worked diligently with the agencies and other stakeholders to build a science-based control plan to be tested and will continue to support these efforts.	Gina Thompson
105.06	Some political activist groups have tried to paint a picture of the TKPOA being an irresponsible community on Lake Tahoe. In fact, some of these activist groups spread outright myths and misinformation on the internet encouraging those with a hatred of the Tahoe Keys to further spread their message, thereby creating more vitriol. I would hope the deciding agencies do not fall for the pressure that these activist groups are bringing to this process. The Lake Tahoe marinas and boating communities (including the Tahoe Keys) have worked very hard to combat the spread of aquatic invasives, and have worked diligently with the agencies and other stakeholders to build a control plan to be tested. Please follow-the-science! Thank you for the opportunity to comment on the TKPOA CMT proposal and the LRWQCB/TRPA EIR/EIS process.	Tom Spencer
110.06	Some political activist groups have tried to paint a picture of the TKPOA being an irresponsible community on Lake Tahoe. In fact, some of these activist groups spread outright myths and misinformation on the internet encouraging those with a hatred of the Tahoe Keys to further spread their message, thereby creating more vitriol. I would hope the deciding agencies do not fall for the pressure that these activist groups are bringing to this process. The Lake Tahoe marinas and boating communities (including the Tahoe Keys) have worked very hard to combat the spread of aquatic invasives, and have worked diligently with the agencies and other stakeholders to build a control plan to be tested. Please follow-the-science! Thank you for the opportunity to comment on the	Joshua Willard

Comment Number	Comment	Commenter
	TKPOA CMT proposal and the LRWQCB/TRPA EIR/EIS process.	
112.03	I have been going to Lake Tahoe for all of it's beauty for over 70 years. I am a swimmer and hiker and have the highest regard for the environment. I was finally able to purchase a home in the Keys in 1999 to be able to enjoy Tahoe on a more frequent basis. I am also familiar with the tactics of environmental zealots who will do anything to get their way. They are now saying that herbicides must be excluded in Lake Tahoe "unless all other methods have proven ineffective" They have had ten years to suggest and or test "other methods". It is time to move forward with the herbicide that has been tested. Some political activist groups have tried to paint a picture of the TKPOA being an irresponsible community on Lake Tahoe. In fact, some of these activist groups spread outright myths and misinformation on the internet encouraging those with a hatred of the Tahoe Keys to further spread their message, thereby creating more vitriol. I would hope the deciding agencies do not fall for the pressure that these activist groups are bringing to this process.	Dean Moser
307.04	5) Some political activist groups have tried to paint a picture of the TKPOA being an irresponsible community on Lake Tahoe. In fact, some of these activist groups spread outright myths and misinformation on the internet encouraging those with a hatred of the Tahoe Keys to further spread their message, thereby creating more vitriol. I would hope the deciding agencies do not fall for the pressure that these activist groups are bringing to this process. The Lake Tahoe marinas and boating communities (including the Tahoe Keys) have worked very hard to combat the spread of aquatic invasives, and have worked diligently with the agencies and other stakeholders to build a control plan to be tested. Please follow-the-science!	Tom Spencer
102.06	5) Some political activist groups have tried to paint a picture of the TKPOA being an irresponsible community on Lake Tahoe. In fact, some of these activist groups spread outright myths and misinformation on the internet encouraging those with a hatred of the Tahoe Keys to further spread their message, thereby creating more vitriol. I would hope the deciding agencies do not fall for the pressure that these activist groups are bringing to this process. The Lake Tahoe marinas and boating	Michael McGinnis

Comment Number	Comment	Commenter
	communities (including the Tahoe Keys) have worked very hard to combat the spread of aquatic invasives, and have worked diligently with the agencies and other stakeholders to build a control plan to be tested. Please follow-the-science! Thank you for the opportunity to comment on the TKPOA CMT proposal and the LRWQCB/TRPA EIR/EIS process.	

Summary Comment 1.5

The weeds issue is out of control and the CMT needs to be approved in an urgent and immediate manner from all agencies and stakeholders involved. The weeds impact on the Tahoe Keys lagoons, and soon Lake Tahoe is an urgent issue. The degradation of water clarity and the impacts from lower water levels has accelerated the spreading of the weeds and the Water Board needs to approve the CMT to find solutions. Time is of the essence and please do not delay the approval of the CMT.

Summary Response 1.5

In 2017, the Tahoe Keys Property Owner Association (TKPOA) applied for an exemption to the Basin Plan's waste discharge prohibition on the use of pesticides in surface waters as either an Emergency and/or Time Sensitive project. TKPOA also provided supplemental information in additional submittals.

When the TKPOA applied for a Time Sensitive Basin Plan Exemption in the second submittal, the Water Board staff determined the proposed integrated test methods project (i.e. CMT) does not meet the requirements for a time sensitive or emergency prohibition exemption. As a result, staff prepared a resolution to grant an exemption for a "non-emergency/non-time sensitive" prohibition exemption for the Lahontan Water Board's consideration.

A CEQA document was prepared in support of the Basin Plan prohibition exemption. The No Acton Alternative was not identified as the Environmentally Superior Alternative. See summary response 1.3.

Comment Table 1.5

Comment Number	Comment	Commenter
13.01	Our love of Lake Tahoe prompts us to wholeheartedly support all the proposed AIS control method test including herbicides. Time is of the essence as the growing AIS problem is aggravated by the global warming causing the significant temperature rise in Lake Tahoe and the Keys.	Rene and Phyllis Scribe

Comment Number	Comment	Commenter
4.02	I feel if you do not move forward with this much needed and time important issue thewe will have much bigger problems in the near future .	Sean Ward
301.01	I am writing to you to let you know that I support the TKPOA Control Methods Test as written, that must include the Test of Herbicides. The current control efforts as listed below are not working: (1) the bottom cover mat system is totally impractical for the whole of the Keys, (2) the Ultra Violet Light system simply does not work. They tried this system in front of my friend's home in a rather confined area and a few months later us Keys residents had to pay a service to remove the weeds that had grown back (3) Pumping the water through the keys does help the overall water quality but it doesn't get rid of the weeds However, what does work is the herbicide that has been proposed. Before that herbicide became illegal, we used that product in our yard. We applied the herbicide seasonally in the spring and late summer. The application of the herbicide controlled the weed invasion considerably with no danger to the wildlife who continued to feed in our yard. Whatever run off may have flowed into the lagoon did not impact the fish, beavers or frogs as they were more prevalent then than they are today. I firmly believe that Herbicides must be part of the CMT, even though the Basin Plan calls for its exclusion, it is time that drastic measures be addressed. We have been part time residents of Lake Tahoe for many years and we enjoy the beauty of the lake as we partake in boating, kayaking, paddle boarding and just plain swimming and cooling off in the lake. In order to continue to enjoy the beauty of Tahoe for us and all future generations, we believe NOW is the time to approve the use of the herbicides which have been approved by the FDA as well as the State of California. Stop the nonsense now as the ten years of testing and alternative measures have not worked, move forward in a responsible method by applying the herbicides that we know work!	Susan Ballman
93.01	I urge the LRWQCB to approve the Control Methods Test, including the herbicide option. My husband and I are relatively new to South Lake Tahoe, having moved from Bear Valley to get away from the big snow loads, and to enjoy city life. Getting to live near this gem we call Lake Tahoe was an enormous bonus for us. We are avid sailors and stand-up paddlers. We spend a lot of time on the water, but navigation through the lagoons has become nearly impossible without a big engine. My husband joined	Susan Wolcott

Comment Number	Comment	Commenter
	the TKPOA water quality committee in hopes of helping to move the effort forward. I have attended TKPOA town hall forums on the topic, as well as the recent AIS Open House. From those events, I've garnered a lot of respect for the 5-year collaborative effort that got us to this critical decision point. That said, I am extremely concerned that an integrated solution might still be 5-6 years away. I understand that we're seeing increasing concentrations of curly leaf pondweed in lagoon samples, and we have observed larger infestations on the shelf outside the Tahoe Keys. Time is our enemy. I have briefly reviewed the CMT methodology. The herbicides proposed for the test are federal and state EPA approved, and the degradants appear to be relatively harmless after a few weeks. The plan to test the herbicides only in the warm, shallow, relatively obstructed fingers of the keys makes a lot of sense. I also understand that water barriers will be used to isolate the herbicide test area, and that the barriers will not be removed until water samples indicate it is safe to do so. No herbicides will be used in the lake itself. The test methodology appears to be thorough and safe. The TKPOA has been working on this problem for more than a decade without success. The other treatment alternatives – ultra violet light treatment or diver assisted suction -- don't appear to be practical or cost-effective in the turbid water of the lagoons. Herbicides have been used successfully in other parts of California. It's time to try something different before the infestation spreads further. Beyond approving the herbicide test, I would urge the board and the technical staff at the LRWQCB to build an appropriate amount of flexibility into the permit, so that the AIS collaboration team can adjust for deficiencies or build on successes as the test proceeds. We cannot afford to fail on this. And we cannot live with the status quo. Good luck with this important decision, and thank you for considering my input.	
41.01	We have both lived in South lake Tahoe for over 35 years and have personally watched the weed situation get worse. Weeds are now growing where they never did, while where they ever grew, they are much thicker. We understand the reason to be careful of what is done to help, but those herbicides have been used for a long time, all over the USA, with great results. The TKPOA has bent over backwards to jump through the appropriate hoops, yet the carrot kept moving away, as was told to me by a	Holli and Dennis Wright

Comment Number	Comment	Commenter
	TRPA employee at one of the many meetings over many years, that we have attended about the weed problem. We are hoping the powers that be will finally recognize the efforts that have been made to help, by the TKPOA, are not working and that herbicides are the answer to get control of this out of control situation. It is time to take action! Enough studies have been done, while the weed problem has only grown bigger. Now, we need to do a test in the TKPOA waterways. We are sure we will all be pleasantly surprised by the results. We thank the many agencies involved for finally recognizing the only way to rid beautiful Lake Tahoe of her weeds is to test the herbicides in a very controlled way like the Tahoe Keys waterways. We are extremely hopeful and anxious to see the results. PLEASE, PLEASE, PLEASE let this happen! We want to see the lake and keys waterways back the way they were so long ago for future generations. Thank you for your time.	
18.01	I fully endorse and encourage the Lahontan Water boards approval of the Tahoe keys weed control test. Our family has lived in Tahoe Keys since 1970. Back in the 70s and 80s the Tahoe keys was a joy to live in. The water was clean, blue not green, and people were able to spend hours swimming in the hot summer sun. As the invasive weeds and warm water fish were introduced into the keys the water quality decreased drastically. There was general consensus from the property owners that action had to be takin to bring the water back to its original state. What was the solution? ---Study it! Here we are almost 30 years later and we are still studying it. We have “Analysis paralysis”. Now is the time to take action and do something; If not for the keys for Lake Tahoe. The test of Herbicides in my opinion is the only way to go. It will have the greatest impact over the shortest amount of time and has been proven safe when used correctly.	Bill McChesney
214.03	The TKPOA Home Owners Association Has Spent at least 5 million dollars in effort to study and find solutions for the weed problems in the Keys lagoon. This does not include the yearly expense for the ongoing harvesting required to keep the channels clear for navigation. So far nothing has worked to control the weeds, as the threat to destroy Lake Tahoe water quality and clarity grows. We can not delay this any farther, we need the CMT to show the most effective treatments for the long-range control of theses invasive weeds in the the Keys lagoons and for the	Chris Disney

Comment Number	Comment	Commenter
	protection of Lake Tahoe. Herbicides are a proven method to get invasive weeds under control around the world and proven safe. I urge LRWQCB to Approve this Control Methods Test without further delays, including the Herbicide test, so that we can Immediately move forward in finding the best combination of solutions to control the invasive weeds in the Tahoe Keys and PROTECT Lake Tahoe	
274.01	This is a message of support for the Control Methods Test, including the herbicide option, to be used in Tahoe Keys for control of the aquatic weeds. I have watched the advance of the aquatic weeds in the Tahoe Keys lagoons over the period of 50 years that I have been a homeowner and resident of Tahoe Keys. The time is now to move ahead without further administrative delays. The health of all of Lake Tahoe is at stake if steps are not taken immediately to control these invasive aquatic plants. The TKPOA has been working on this problem for more than a decade with considerable financial expense, but without much success. Other treatment options don't appear to be as practical or as cost effective. It's definitely time to move ahead with the Control Methods Test.	Margaret Kortes
63.07	Time is of the essence and I would also ask that the agencies not kick-the-can down the road, and not to delay, or take a partial approach, but rather treat this issue with the urgency and priority required for success. I urge LRWQCB to immediately take steps to approve the permitting required for full implementation of the CMT	Gina Thompson
65.01	I am a homeowner on {redacted} Drive in the Tahoe Keys. We have owned our property for more than thirty years and have recently seen an alarming disintegration of the quality of the water in the lagoons. During the past five years the invasive weeds and algae bloom in the lagoon behind our house has made it impossible for our grandchildren to enjoy jumping in the water for a quick swim. We are now even afraid to let them paddle board after the end of June! The aquatic invasive weeds are a serious threat to, not only the Tahoe Keys community, but also to the lake-wide Tahoe ecology and water quality. We must get this under control now! Please support the private/public collaborative effort to test treatment methods and create a comprehensive and lasting solution. We have proposed a process and must now base the solution on science and testing. Unfortunately, if this is not immediately addressed in a thoughtful and proactive	Lori Aldrete

Comment Number	Comment	Commenter
	manner, we may soon face reactive thinking and crisis solutions that could be prevented. Please approve the request from the TRPA, the League to Save Lake Tahoe, The TKPOA, and the Tahoe Resource Conservation District to go forward with the CMT testing that includes both aquatic herbicides and ultra violet light. We need your help. We need your approval. Please don't let us down	
108.01	The purpose of this letter is to voice our support for the use of the Control Methods Test (CMT) to be used in the Tahoe Keys lagoons to combat the aquatic invasive weeds problem. We are residents in the Tahoe Keys and have witnessed firsthand the continuing degradation of the water quality in the lagoons despite current efforts to combat the problem. It is obvious that the current methods for treating the weed problem have not been successful and a more innovative approach is needed. The infestation in the Keys is growing and immediate action needs to be taken to halt the spread of the weeds in the lagoons and spreading into our beautiful lake. Our concern is not just for the lagoons of the Keys, but for the preservation of the Lake. Already there are some parts of the Lake that murky and weed-choked, in part because of the aquatic invasive weeds. Please take the next step and approve the permit for CMT project including the use herbicides. Thank you for your consideration.	Chrysan and Ron Dosh
262.05	If we don't act now, Lake Tahoe will continue to face impacts from the aquatic weed infestation, including degradation of water quality, causal relationship with hazardous algal blooms, harmful effects on native species and negative impacts on recreation.	League to Save Lake Tahoe
262.14	Immediate action is required The infestation of aquatic weeds in the Tahoe Keys lagoons must be addressed immediately to. The Tahoe Keys lagoons infestation (at nearly 172 acres) is ground zero for AIS at Lake Tahoe, and the infestation of aquatic weeds is spreading further into Lake Tahoe every day. The infestation spreading from the mouth of the Tahoe Keys lagoons now comprises the largest population in Lake Tahoe proper (over 100 acres) and will continue to grow and spread until the source within the Keys lagoons is addressed. Impacts from climate change only highlights the need for urgent action, as lower lake levels, warmer waters, and more precipitation from rain than snow will increase the potential for AIS to establish and spread in Lake Tahoe.	League to Save Lake Tahoe

Comment Number	Comment	Commenter
293.01	I urge the LRWQCB to approve the Control Methods Test, including the herbicide option. My family has been sailing Lake Tahoe for 35 years and bought a townhouse in Tahoe Keys 7 years ago in order to enjoy more time with our sailboat on the water. The invasive weeds have become extremely hazardous. Twice this past summer weeds wrapped around our propeller, which totally stopped the motor, leaving us drifting in the channel trying to untangle the weeds with oncoming boats from both directions. I'm sure other boaters have experienced similar dangerous situations as well. The weed problem has grown exponentially, affecting the clarity and safety of our lagoons. It is urgent that the board issue the TKPOA permit for CMT with herbicides and provisions for any necessary adjustments now before the situation gets much worse.	Scott Litteral
236.02	I have lived in Tahoe for over 43 years and have been in Tahoe Keys resident for the whole time. I have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe. It has taken too many years to get to this point where we are close to implementing this tactic. Too many years have been wasted on bureaucratic debate and what could have been a small project then is now huge. Let’s give it a chance. We have nothing to lose. These herbicides have been tested and proven in other areas, why not ours. Please issue our permit for CMT for the use of herbicides. Thank you for your attention to these urgent matters.	Hermann & Elisabeth Leuch
311.01	. . . We are asking for you to help us fix this problem. We urgently need your approval for the use of very specific aquatic herbicides for the "Control Methods Test" to help get this issue under control. We need your help by allowing our HOA to utilize a known suppression method (aquatic herbicides) in eradicating these invasive weeds. We plan to continue owning our property for many years to come, and want to keep Lake Tahoe beautiful and healthy. Thank you for the opportunity to give our input on this serious matter.	Chuck and Wendy Oleson
350.01	I Samar Jubayli live and love the Tahoe Keys!! Please consider this my approval and urgent request to proceed with the herbicide! We have seen the gradual and now accelerating degradation of the clarity of the lagoons over the years. Please allow the use of the tested safe	Samar Jubayli

Comment Number	Comment	Commenter
	herbicides in our lagoons to try to save these waterways and ultimately the clarity of Lake Tahoe.	
352.01	My wife and I and our three sons (twin 11's and 14 yrs old) own a home in the Tahoe Keys and had previously rented every summer in the Keys for over a dozen years. We think the Keys are an incredibly special place and a wonderful way to more "affordably" own a home at Lake Tahoe with direct boat, paddle board and kayak access to the lake. Our boys absolutely love it. However, over the past 13+ years we have seen a steady decline in the water quality and health in the Keys with regard to the invasive aquatic weeds and related issues such as algae. We have also witnessed the spread of the aquatic weeds out into the Lake itself which is even more troubling. The weeds are so pervasive that it has also negatively impacted the quality of life of residents and greatly reduces the appeal of the Keys. They show no signs of slowing down despite years of harvesting and other mitigation efforts. This urgent problem requires swift and aggressive action to stop the spread and eliminate the existing invasive aquatic weeds in the Tahoe Keys. While we're not usually fans of herbicides, in this case we believe their use is long overdue if done so carefully and with responsibility as is proposed in the Aquatic Weed Control Methods Test, along with other non-chemical approaches. For these reasons, we respectfully urge your support of the proposed Aquatic Weed Control Methods Test and its speedy deployment -- no later than early Spring 2022.	Scott Peifer
374.01	My name is Michelle Pandori. I am resident in the Tahoe Keys as well as a member of the Tahoe Keys Finance Committee. I am writing to appeal to you to collaborate with us with the permit currently under consideration for the control methods test. I feel this is an urgent issue. We own a boat and our slip is engulfed in the weeds. Lake Tahoe is a treasure and I feel it is an urgent issue to address and correct. I hope that we can collaborate with the communities, organizations, and agencies involved with Lake Tahoe to preserve this treasure.	Michelle Pandori
116.01	I'm a long time Homeowner, and support herbicide testing because frankly, we have no other choice. Without this option, the invasive weeds are going to continue to spread and ruin our beautiful Lake Tahoe. A short-step back could mean a long-term solution. Urgent, urgent, urgent! Stop the spread now	Anonymous

Comment Number	Comment	Commenter
385.01	This letter presents supplemental comments by the Tahoe Keys Property Owners Association (TKPOA) on the Tentative Resolution and Draft Staff Report for the Tentative Resolution for the Basin Plan Exemption for the Tahoe Keys Lagoon Aquatic Weeds Control Methods Test Project (Project). Below and attached are General and Page Specific comments important to the Lahontan Board's consideration of the Basin Plan Exemption. These comments support TKPOA's other comment letters on the Tentative Order and Tentative Permit for the Project submitted by the TKPOA Board, TKPOA General Manager, and TKPOA Water Quality Committee Chairman. Central to the Lahontan Board's decision to approve the Project is whether the Project meets the Basin Plan Exemption criteria to test the efficacy of herbicides in the Tahoe Keys West Lagoon. As presented below, in the attached comments and TKPOA's other comment letters, abundant substantial evidence demonstrates that the Project not only meets the Exemption criteria but, · based on recent evidence documented by the Tahoe Resource Conservation District, the Project also meets the Lahontan Basin Plan Exemption criteria as a "time-sensitive" project: 1) Survey data from the Tahoe Resource Conservation District in 2021 shows an expanding presence and dense infestations of curly leaf pondweed and Eurasian watermilfoil in over 100 acres of Lake Tahoe proper outside the Tahoe Keys. These infestations were not known to exist 4 to 5 years ago. The geographic locations of the infestations are directly associated with boating pathways leading from the lagoons into Lake Tahoe. 2) Given the documented exponential growth of curly leaf pondweed in the lagoons between 2014 and 2021, a similar pattern of infestation can be expected in Lake Tahoe proper. This means curly leaf pondweed is likely to increase exponentially in occurrence and composition in Lake Tahoe proper within and beyond the 100-acre infestation over the next 5 to 7 years, similar to the lagoons. 3) This represents clear evidence that control of the invasive plants in The Keys lagoons is not only "Time-sensitive" as previously asserted by TKPOA, but arguably now should be considered an "Emergency" to minimize the future contributions of spread from the lagoons into Lake Tahoe. 4) The non-herbicide control measures to be tested by the Project (i.e., UV-C light and laminar flow aeration) have shown limited effectiveness based on the past two	David Peterson, Tahoe Keys Property Owners Association (TKPOA) Board of Directors President

Comment Number	Comment	Commenter
	years of preliminary testing in The Keys lagoons. This recent lack of success only highlights the urgency of trying new methods. The 2021 reports on these methods are under preparation and will be submitted to Lahontan as soon as possible. With the above information, TKPOA herewith requests that the Lahontan Board consider approving TKPOA's Project as "Time-Sensitive" and pass the Tentative Basin Plan Exemption Resolution to allow the testing of herbicides for their efficacy to arrest the growth of curly leaf pondweed within the lagoons and its spread from the lagoons into Lake Tahoe. Only herbicides are presently known to be feasible at the scale of the lagoons. Given that regulatory and resource agencies (e.g., Lake Tahoe Aquatic Invasive Species Coordinating Committee), University of Nevada, Reno leading researchers, Dr. Charles Goldman, and national invasive species experts all recommend the need for testing of herbicides in the lagoons, an explicit, compelling basis exists for the Lahontan Board to timely authorize the Project including the testing of herbicides. As a result, we strongly encourage the Lahontan Board to timely pass the Tentative Resolution, along with the Tentative Permit Order, and allow TKPOA to avoid further delay and implement the Project in Spring of 2022 as proposed.	

Category 2 General Statements of Non-Support

Summary Comment 2.1

Nonchemical methods needing proper and thorough testing prior to testing herbicides. Herbicides should never be considered for use in the Lake Tahoe basin and the Tahoe Keys has fundamental issues not being addressed by the proposed project. The test sets precedent for future use of herbicides in the long-term management of the weeds.

Summary Response 2.1

Thank you for expressing the importance and values that Lake Tahoe represents to you, and the need to protect it. As attested by the many comments received, these feelings and values are widely held. Some commenters were concerned about the widespread or re-occurring application of herbicides in Lake Tahoe, which is not proposed for the CMT. Rather, the CMT is a test application of two herbicides, limited to the test sites identified in Attachment C in the Draft NPDES permit. The CMT test is limited to approximately a two to three-week period in the spring during high snow-melt, when hydraulic gradients are from Lake Tahoe filling the Tahoe Keys Lagoons.

As described in Section I and II of the Fact Sheet (Attachment F in the NPDES permit), the purpose of the Tahoe Keys Lagoons Aquatic Weed Control Methodology Test (CMT) is to test methods to control the spread of non-native target aquatic weeds that have compromised water quality, degraded a wide variety of beneficial uses of the Tahoe Keys lagoons, and threatens Lake Tahoe. If the current trend continues, the target aquatic weed infestation will continue to impact and threaten nearshore areas around Lake Tahoe.

The State Water Resources Boards and Lahontan Water Board have the primary responsibility for protecting water quality in the Lahontan region, including Lake Tahoe. The Basin Plan states the following exemption criteria to apply pesticides: "Demonstration that non-chemical measures were evaluated and found inappropriate [and/or] ineffective to achieve the project goals." Non-chemical methods would be tested with herbicides and would be combined with herbicides over the course of the test study. In order to compare the effectiveness of the different treatment methods with minimal variability in testing conditions, it is important that all treatment methods being considered for future use be evaluated at the same time in the same or very similar environment. That is why both chemical and non-chemical treatment methods identified in the CMT project need to be evaluated concurrently. Failing to do so, will fail to meet the project’s goals. Non-chemical methods proposed for this test have been implemented either within the Keys, within Lake Tahoe, or both. Results from implementing non-chemical methods were used to evaluate the potential effectiveness in meeting project goals. See Summary Response 5.2 for further discussion on why testing non-chemical methods is not required before granting an exemption to the pesticide prohibition. On why the Lahontan Water Board is not required to select an alternative to the CMT, see Summary response 6.3 and 4.9.

Please also see Summary response 2.2.

Comment Table 2.1

Comment Number	Comment	Commenter
383.07	I do not believe that the Tahoe Keys should be issued an herbicide permit. Not now, not in a year and not ever.	Trish Friedman
349.05	Do not approve the TENTATIVE RESOLUTION GRANTING AN EXEMPTION TO THE AQUATIC PESTICIDE DISCHARGE PROHIBITION IN THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION FOR THE CONTROL METHODS TEST OF HERBICIDES AND OTHER TECHNIQUES TO REDUCE AQUATIC INVASIVE PLANTS IN THE TAHOE KEYS LAGOONS AND TENTATIVE WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR TAHOE KEYS PROPERTY OWNERS ASSOCIATION TAHOE KEYS LAGOON AQUATIC WEEDS CONTROL METHODS TEST AND MITIGATION MONITORING AND REPORTING FOR THE CONTROL METHODS TEST OF HERBICIDES AND OTHER TECHNIQUES TO REDUCE AQUATIC INVASIVE PLANTS IN THE TAHOE KEYS LAGOONS.	Robert Vidra
3.01	NO!	Linda Wunder
321.03	We herein support and incorporate by reference comments submitted by the Sierra Club, Tahoe Area Group, on the subject project.	Judith Tornese
196.01	NO PERMIT SHOULD BE ISSUED TO TEST HERBICIDES IN LAKE TAHOE INCLUDING THE KEYS Don't break the law which protects our water. Only use non-herbicide techniques to kill these weeds. There will be no such thing as a 'one time' test. My family drinks water drawn from Lake Tahoe not a well. Any herbicides used in the Keys will naturally migrate along the South Shore the same as their weed pieces do now which cause infestation at Ski Run and Lakeside marinas and herbicides will poison my water. NO PERMIT.....NO WAY	Andy Engelhardt
363.04	I ask that your organization help stand up and do what is right for our environment and the people who it means so much to. We need advice on this issue from people who do not have an individual personal gain.	Benita Luke
164.01	It seems that property was not well maintained somewhere along the way…I hope homeowners with access are being penalized for the lack of maintenance and subsequent results. We should not be using chemicals to clean-up or manage this problem.	Tamera Booth

Comment Number	Comment	Commenter
383.07	I do not believe that the Tahoe Keys should be issued an herbicide permit. Not now, not in a year and not ever.	Trish Friedman
138.02	Thank you for your email. Yes, I, too am very concerned about this issue. I was 2 years old when my legs first hit the icy cold Lake Tahoe waters on our first week at our cabin in the 1950's ..and my mother said I "screamed my head off" when my legs went in the water. :) So my love story for icy blue Lake Tahoe is quite a long one.	Marilyn Sunia
1.15	When will someone at Tahoe Keys POA step back from the brink of the cascade and look for a different path down to the blue jewel of Lake Tahoe?	James Gatzke
251.01	1. Tentative Resolution Granting an Exemption to the Aquatic Pesticide Discharge Prohibition in the Water Quality Control Plan for the Lahontan Region for the Control Methods Test of Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoons I am opposed because of the use of herbicides and lack of a way to follow up and move forward.	Judith Michaels Simon

Summary Comment 2.2

Lake Tahoe is a valuable resource needing protection and the herbicides will destroy the ecosystem of Lake Tahoe. The herbicides will flow into Lake Tahoe because the water ways are directly connected. Herbicides should not be allowed in any water body in the Tahoe basin, especially not in a water body directly connected to Lake Tahoe.

Summary Response 2.2

The herbicides selected for the CMT are U.S.EPA and California Department of Pesticide Regulation approved. The Draft Environmental Impact Report (EIR) found that a single application of the selected herbicides is expected to have a be less than significant effect on the environment. The No Action Alternative was evaluated in the Draft EIR/EIS and was found to have significant unavoidable impact since the continued dispersal of aquatic weed fragments, potentially spreading infestation throughout the Tahoe Keys and in Lake Tahoe is expected. The continual infestation of aquatic invasive plant threatens the Lakes ecosystems.

During the treatment event, any drift of herbicides to receiving waters is expected to be minimal and below acceptable levels. Turbidity curtains will be installed to impede herbicide migration from test sites towards the West Channel that connects the West Lagoon to Lake Tahoe, and within Lake Tallac. Based on this information herbicide migration should not reach Lake Tahoe or a drinking water supply intake. Please see

Summary Response 13.2-13.7 for further discussion on why impacts to drinking water are not expected.

It is unclear what filtration system the commenter is referring to in their comment. A circulation system is in place in the Tahoe Keys but would not be utilized during herbicide application to avoid the potential of drift or migration.

The lagoon behind Weir Way is connected to Lake Tallac via a culvert under 15th street. It is a lagoon between Lake Tallac and Pope Marsh to the west of the Keys, and is not an isolated system.

Please also See Summary Response 2.1.

Comment Table 2.2

Comment Number	Comment	Commenter
1.01	Please don't compound the negative impacts of Tahoe Keys Lagoons by releasing herbicides in Lake Tahoe. I believe that there are questions and potential impacts that have not been adequately analyzed and weed management alternatives that are not being considered.	James Gatzke
67.01	I am completely against using herbicides of any kind in Lake Tahoe or anywhere near the lake itself! This is the most ridiculous idea I've ever heard of!!!	Karen Harrison
70.01	I am a resident of South Lake Tahoe since 2012. There is so much beauty and serenity in the clear blue of the lake which my family and others have enjoyed for so long. Please do not allow herbicides, which will eventually flow into the lake and destroy the ecosystem bear that keeps the water so blue!	Grace Yang
156.01	As a resident of Incline Village, I urge that no pesticides be used in the Tahoe Keys as it will affect the water of the whole of Lake Tahoe.	Gia Rauenhorst
197.01	Please I do not want herbicides used in the Lake Tahoe area	Arlene Bertlow
322.01	I'm against the use of herbicides in Lake Tahoe.	Jim Li
213.01	Please DONOT consider any use of herbicides in Lake Tahoe. Incredibly short-sighted and irresponsible.	Chris Cefalu
241.01	I'm against the use of herbicides in Lake Tahoe.	Jennifer Talbott
244.01	Just stating my opinion that herbicides in Lake Tahoe are not the answer to the current problem. Why cause more potential problems trying to solve one.	Jim Hall
282.01	I'm against the use of herbicides in Lake Tahoe	Mohammad Rezamand

Comment Number	Comment	Commenter
285.01	The fact that herbicide use is being seriously considered in Lake Tahoe, when other, less destructive (yet more expensive, of course) methods of invasive weed control have not yet been vigorously attempted, is despicable and shows a true lack of forethought by the Water Board and all those involved. It's both said that the herbicides "won't spread" to the rest of the lake, yet at the same time, they'll be deposited at the site of the weeds, which have proven to be IMPOSSIBLE to "contain". Whatever you do to the Keys, you do to the rest of the lake.	Phil Mosby
285.04	What cost is too much to save one of the most precious fresh water lakes in the world? I can't think of a big enough number, personally, and yet it seems small minds with short visions of the future are in charge of this decision making process, and are willing to "try" anything if it saves a buck and avoids dealing with the uncomfortable reality of the situation. Again, I strongly urge you NOT to approve the use of herbicides in Lake Tahoe in even a "testing" capacity, and I truly mourn for the legacy of this board should it be the one to sign off on this foolhardy endeavor. Be better, please.	Phil Mosby
291.01	I do not approve the use of herbicides in Lake Tahoe	Sam Parmar
340.01	I am against the use of herbicides in Lake Tahoe. Please keep the Lake water clear, clean and blue!	Patricia Wong
371.01	I am adamantly opposed to any use of herbicides in Lake Tahoe.	Judith Michaels Simon
375.01	i am a resident here in South Lake Tahoe . Please do not introduce the use of herbicides into Lake Tahoe ... i oppose the use of pesticides in any part of the waters of Lake Tahoe.	Rafael Campos Jr
203.01	I am very against you putting herbicides in out beautiful lake	Beverly Petersen
254.01	from email subject line: "No pesticides in our most beautiful Lake Tahoe!!!"	Karen Harrison
337.01	As residents in Tahoe Keys we are opposed to testing or use of pesticides, herbicides, or weed killers in Tahoe Keys water channels that connect directly to Lake Tahoe.	Steve Bridges
287.01	Please do not start adding herbicides into our pristine waters	Randall E. Lambach
363.01	Please let it be known that I am vehemently opposed to using herbicides in our pristine waters of Lake Tahoe. I strongly believe that there are other alternatives that need to be tested in a fair and thorough manner. I encourage the restoration of the circulation system and filtration plant in any case.	Benita Luke
367.01	I am opposed to the use of herbicides in the Lake Tahoe and Tahoe Keys areas,	George F Marchese

Comment Number	Comment	Commenter
359.01	Please do not allow the use of herbicides in the Lake Tahoe basin. The use of herbicides is NOT a good option to control the invasive weeds in the Tahoe Keys. We must keep in mind of the negative impacts herbicides can have on our beautiful lake. Our lake is home to many individuals, aquatic activities, and aquatic and land animals who need the lake to survive. It is our responsibility, as educated individuals, to keep our lake optimal for all parties. . . . Please DO NOT put herbicides in our lake water!	Will Phillips
162.01	I think this is a horrible thing that you are considering doing to our lake. Even if it would be more expensive it would be worth it to somehow get the weeds out manually or some other way. It's in our lake in enough trouble already	Kathy Gussow
49.01	From 2002 through 2014, I owned a home in the Tahoe Keys at {redacted}Weir Way. The lagoon behind my home was full of the invasive weeds that have been threatening the health of Lake Tahoe. The reason I am writing is because this particular lagoon that is part of the Tahoe Keys development is landlocked, and does not connect with Lake Tahoe. You may already be aware of this particular lagoon, and that it could be a good place to test the weeds control methods with little or no impact to the Lake itself. I have attached a map to show you the location of my former home and the lagoon.	Elizabeth Smiley
327.03	2. Why is it necessary to TEST herbicides? We know their devestating impacts to human and natural life. Herbicides have been tested already in other waterways, not in Lake Tahoe.	Kathy Enking
353.02	The use of herbicides is NOT a good option to control the invasive weeds in the Tahoe Keys. We must keep in mind of the negative impacts herbicides can have on our beautiful lake. Our lake is home to many individuals, aquatic activities, and aquatic and land animals who need the lake to survive. It is our responsibility, as educated individuals, to keep our lake optimal for all parties. . . Why is it necessary to TEST herbicides? Herbicides have been tested already in other water ways, not in Lake Tahoe. There is no doubt that herbicides will kill the weeds in the Tahoe Keys.	Stacy Phillips

Summary Comment 2.3

Nonchemical methods are superior to using herbicides to control the weeds in the Tahoe Keys, and herbicides should not be used until all nonchemical methods have been tried and proven ineffective and/or insufficient. Nonchemical methods have not been tested at the larger scale and with an aggressive enough approach to warrant the use of

herbicides. Laminar Flow aeration has proved to be effective in controlling aquatic weed growth in Lake Tahoe and should be used to control the weeds in the keys.

Summary Response 2.3

The proposed CMT includes a one-time test of aquatic herbicides of endothall and tryclopyr in limited areas of the West Lagoon and Lake Tallac, not a proposal to deploy these chemicals for long-term aquatic weeds management. In addition to testing non-chemical methods at 17.8 acres of test sites, the CMT proposes to evaluate efficacy of both herbicides and non-chemical methods. Laminar Flow Aeration (LFA) would be tested for three years and an option is included for a second year of treatments at UV light test sites. The CMT will conduct further testing of both non-chemical methods and in conjunction with herbicide testing.

For future response on why non-chemical methods do not need to be tested first, see Summary Response 5.2.

On why the Lahontan Water Board is not required to select an alternative to the CMT, see Summary response 6.3 and 4.9

On why stormwater and landscape irrigation were estimated to be small components of overall nutrient loading in the main lagoon, see Summary response 6.2.

For an explanation on why the Lahontan Water Board is not required to revise, improve, or implement all non-point source controls prior to allowing a point source discharge, see summary response 4.5.

Regarding acute and chronic toxicity, see Summary Response 11.2.

On the implementation of aeration, see Summary Response 9.2.

Regarding weed fragments, see summary response 9.3.

Regarding boating restrictions and barriers, see Summary Response 6.5 and Summary Response 9.1

It is unclear what filtration system the commenter is referring to in their comment. A circulation system is in place in the Tahoe Keys but would not be utilized during herbicide application to avoid the potential of drift or migration.

Comment Table 2.3

Comment Number	Comment	Commenter
366.02	There must be another cost-effects alternative. Better options instead of herbicides: - Change the environment in the Tahoe Keys. - Utilize Laminar flow to improve the environment in the keys that provides the abundant growth of weeds to exist. - Utilize compressed air feed through registers (which has already been tested in Lake Tahoe with GREAT results)	Emily Koeritz

Comment Number	Comment	Commenter
305.001	The Sierra Club continues to assert that other less environmentally impactful methods than herbicides (non-chemical methods such as laminar flow aeration (LFA) and ultraviolet light) must be thoroughly tested and their effectiveness fully evaluated before such drastic measures as pesticide discharges be used.	Tahoe Area Group of the Sierra Club
272.06	4.We continue to support the testing of (Group B) non-herbicide methods at a larger scale, before chemical treatment is considered. Specifically, greater use of Diver Assisted Suction Harvesting (DASH) for larger scale treatment. The DASH method is highly selective and effective. Divers manually remove the entire plant which reduces concerns over re-growth or nutrient loading from plant die-off. (Table 7.Application, April 30, 2021, pg. 67-68).	Tahoe Water Suppliers Association
226.01	I am a Placer county resident and highly oppose using herbicide in the Tahoe keys. This is a bad idea and many more non chemical methods need to be exhausted first. Do not use herbicides in Lake Tahoe as this will over time destory the Lake we all enjoy.	Dr. Michael Heskett
8.01	I'm very interested in non-chemical approaches, unless the chemical approaches can be shown to have no lasting effects on the regular aquatic life. As a result, I'm especially drawn to the system approach using submerged ultra-violet lights. I haven't been able to find any substantial info about the testing done in the Keys.	Gerry Kerbyson
30.02	The only cost effective method (not herbicides) that can be deployed over a big area is laminar flow. This will also correct the environment in the Keys that allow the abundant growth of weeds	Pablo Ortega
30.03	The Keys have been adamant about using herbicides as a way to control the weeds since the early 90s'. It seems that they have a one-track mind when it comes the use of herbicides. There is a better cost effective way to solve this problem. In addition, the use a compressed air feed thru registers has been tested in Lake Tahoe with great results!	Pablo Ortega
30.06	Why is laminar flow aeration not deployed first? Before the use of herbicides? Aeration has been proven to work in Lake Tahoe to dramatically reduce the conditions promoting aquatic weeds.	Pablo Ortega
138.01	First I agree with something different needs to be done as the attempts to control the weeds are not working. I've pulled many out while kayaking and they popped back up like gremlins the next time I went out. I do support the	Marilyn Sunia

Comment Number	Comment	Commenter
	laser technology but I'm concerned over the herbicide(s), even though only one application is said to be used - and of course, I would like to know which herbicide(s) is going to be used?	
312.04	2. As stated in the TKPOA exemption application, "…mechanical harvesting has been the primary means of AIS control in the Tahoe Keys lagoons since the 1980s." Other statements support the idea that harvesting was implemented primarily to improve navigable conditions, rather than controlling the weeds (e.g., "Regardless of the size of the machine used, the plants in target areas must be harvested multiple times during the growing season to maintain navigable conditions). It does not appear that up to now a variety of non- chemical control methods have been rigorously tested and vetted. Even as it must have been obvious that harvesting was not working, and in fact was likely making things worse (as stated in the Draft Environmental Impact Study that harvesting, "…appears to be enhancing aquatic weed infestation in the lagoons by means of fragmentation.") the practice continued year after year. Granting an exemption and allowing the test of herbicides and the likely intent to pursue herbicide use on a much larger scale in the future, as opposed to aggressively testing and vetting non-chemical approaches, appears to be a reward for a failed approach rather than aggressively testing what non-chemical treatment approaches could achieve.	Dan Askenaize
332.01	From what I have read, your efforts to 'save Lake Tahoe' are not in the best interest of the lake. You are willing to allow The Keys to use weed killer, but guessing some of those involved in this decision wouldn't want that weed killer used in their yard or that of their family. Why not take advantage of the filtration system that's in place? Why not try other non-chemical options? A great deal of time abs money has been committed to saving the lake. It's disappointing to see that it is simply lip service. So disappointing…. A lover of the lake and a north lake resident,	Lois Bendient
353.01	There must be another cost-effects alternative. Better options instead of herbicides: - Change the environment in the Tahoe Keys. - Utilize Laminar flow to improve the environment in the keys that provides the abundant growth of weeds to exist. - Utilize compressed air feed through registers (which has already been tested in Lake Tahoe with GREAT results). . . 1. Why is laminar flow aeration not	Stacy Phillips

Comment Number	Comment	Commenter
	deployed first in Tahoe Keys? Before the use of herbicides? Aeration has been proven to work in Lake Tahoe to dramatically reduce the conditions promoting aquatic weeds.	
327.02	1. Why is laminar flow aeration not deployed first in Tahoe Keys before the use of costly herbicides? Aeration has been proven to work in Lake Tahoe to dramatically reduce the conditions promoting aquatic weeds.	Kathy Enking
379.01	It has come to my attention that the Lahontan Water Board is considering use of aquatic herbicides in the Tahoe Keys. Over the years man has continually altered the natural waters of Lake Tahoe in an effort to benefit humankind or correct previously made mistakes. Most of these actions have ended disastrously. Once again the lake is faced with human intervention in an effort to correct mistakes made by humans, in this case the construction of the Tahoe Keys and the lack of proper filtration/aeration in the newly constructed Keys. This lack of planning, maintenance, continual monitoring and updating of a viable system to control invasive species in the keys has resulted in an environmental nightmare. Use of aquatic herbicides will only exacerbate the problem as the weeds will eventually mutate causing the herbicide to be ineffective. Until all non-chemical methods have been tested and fully vetted, it is irresponsible to use herbicides in the lake. This is our greatest natural resource and the water we drink - please do not destroy it.	Robert Lober
337.04	Tahoe Keys has been known for decades of its dysfunction and mismanagement. Please do not allow TKPOA to further jeopardize the health and safety of Lake Tahoe by allowing use of herbicides, weed killers, and pesticides in Lake Tahoe under its management. Non-chemical methods should be prioritized -- not chemical herbicides.	Mr. and Mrs. Steve Bridges
68.01	Do not use Herbicides in The Keys! Improving recreation and preserving home values for property owners in The Keys is not worth risking the entire Lake and its flora and fauna. Take non chemical steps and you can control the problem. Do not act foolishly	Andy Boe
73.06	The Keys are not alone in their fight, we also are battling the invasive plants in our marina and beach, but adding herbicides is not a consideration for us. Thanks to the support of TRPA and the TRCD, Lakeside Park beach and marina have seen significant results to date from non-chemical aquatic weed eradication processes. We have	Lakeside Park Association and Lakeside Park

Comment Number	Comment	Commenter
	been testing non-chemical efforts for several years and are encouraged by the results to date. Adding chemicals to the precious environment is unnecessary and a very dangerous 'test'.] Again, we feel other mitigation efforts need to be fully invested in, deployed, scaled, tested, and exhausted before any test of herbicides in Lake Tahoe are considered.	Mutual Water Company
252.02	I sincerely hope that your position on the Tahoe Keys push to test aquatic herbicides in our most precious natural resource, Lake Tahoe, is the result of simple ignorance and an unwillingness to dig into the science and not because of the large influx of cash that the league has received and is using to build their new corporate headquarters, but I sincerely doubt that is the case. I have been a long-time supporter of the League until the recent public hearings in which you have advocated time and again for the option of introducing aquatic herbicides into the waters of Lake Tahoe, which is the option that with the exception of doing nothing, the Keys own environmental reports confirm is the riskiest. I have since taken to referring to you and your organization as the League to Poison Lake Tahoe, though it saddens me to do so. Nevermind the fact that the lead consultant built his career on the funds provided by herbicide manufactures or that recent successful class action lawsuits have implicated herbicides, like Roundup in causing Lymphoma and other dire health complications in humans, let's just look at this from a purely "first we do no harm" perspective. From that perspective, would it not be safe to say that all non-chemical options should be exhausted before we introduce known cancer causing agents into the lake? Not only could the Keys have spent the last ten years and millions of dollars on actually combating their weed issue instead of trying to get permission to introduce poisons into the lake, but the League who's sole mission is the supposed health and clarity of our lake should have spent the last 10 years looking for alternatives. Instead, a barrage of circuitous logic (such as "it's okay to use herbicides in the Keys because they won't make it into the lake, but it needs to be done asap because the weeds are spreading from the Keys into the lake") has been pumped into the media in an effort to quash any other alternatives and it begs the question, why? Why are all of these resources being spent on the one solution that benefits big chem and all alternatives are being ignored? Why are we not taking	Julie Soules

Comment Number	Comment	Commenter
	advantage of the second major drought in recent years to drain, dredge and eliminate the nutrients that feed these weeds in the Keys and instead continuing the pursuit of the aquatic herbicide option? Why are we not taking this opportunity to learn from past human mistakes and are once again ignoring the potential long-term consequences in favor of the short-term benefits? And why, above all else, are we pursuing a "solution" that only treats the symptoms and not the cause? I implore you and all people who have an interest in the health and well-being of Lake Tahoe to ask yourselves these hard questions and consider the many alternative true solutions out there, such as UV light treatments, stopping pollutants from landscaping from draining nutrients into the lake, and yes temporarily draining and dredging the Keys, before implementing even a test of aquatic herbicides. Let's not be the next Clear Lake, which now has herbicide resistant weed blooms and instead work together as a community to find long-term, sustainable, and non-chemical solutions to Tahoe's invasive weed problems.	
272.07	We support greatly expanding the scale of use for the Laminar Flow Aeration (LFA) testing scope. Laminar Flow Aeration has excellent results as a water quality improvement for reducing sediment depth and decreasing sediment nutrient content. It is also proposed as a mitigation to offset low level Dissolved Oxygen (should these conditions occur). Nutrients available in sediment has been determined as the main ‘food source’ in the Keys’ nutrient cycle. TKPOA has instituted non-point source management protocols to reduce ongoing runoff loading. This emphasis is critical to ongoing success. Please see this report on LFA used regionally:	Tahoe Water Suppliers Association

Summary Comment 2.4

The herbicides proposed to be used in the Tahoe Keys lagoons are poisonous. The test will include putting chemicals (poison) indirectly into Lake Tahoe because the Keys lagoons are hydraulically connected to the lake. We must use all non-chemical methods first that do not include the use of poison (i.e., herbicides).

Summary Response 2.4

If applied, the herbicides selected for testing would quickly degrade and would be contained throughout the test behind turbidity curtains. The turbidity curtain would impede herbicide migration from test sites toward the lake. If herbicide treatments are

applied, only CalEPA- and US EPA-approved chemicals will be used. An evaluation of the impacts from herbicides are included in the analysis of the project's impacts in the DEIR/EIS and concludes the one-time testing would have less that significant impacts.

Regarding acute and chronic toxicity, see Summary Response 11.2.

Please see Summary Response 13.2-13.7 for further discussion on why impacts to drinking water are not expected.

Regarding HABs, please see Summary response 10.1

Comment Table 2.4

Comment Number	Comment	Commenter
72.01	I am opposing the use of herbicides in Lake Tahoe. As a 2 times cancer survivor, I know this can't possibly be healthy for anyone. We live in Tahoe for the clean air and water as well, we don't want to drink poison. And the lake's fauna doesn't want this either. It's hard to believe that someone decided to poison the lake, and even harder to believe that this is about to happen in today's America. But since that is the case, I am doing my part by voicing my concern in this matter.	Ana Stefan
81.01	I reject any use of herbicides in lake tahoe. Why poison the waterhole? We property owners for 7 decades oppose any use of them in the lake	Ken Pusateri
211.01	I'm a former resident of South Lake Tahoe, and it will always be one of my favorite places on earth. It's my understanding that the plan is to dump herbicides into the lake. I think any kindergartner could easily figure out that this is a horrible idea. I'd like to suggest not dumping poison into an alpine lake. There's tons of great documentaries about restoring land using regenerative practices, I don't know what the regenerative alternative would be for dealing with unwanted plants in a lake, but I'd be shocked if there wasn't a simple, efficient method for dealing with the unwanted species that doesn't involve poison. We're dealing with naturally occurring environmental disasters with ever increasing frequency, there's no need to compound the problem by doing something as short sighted and dangerous as dumping poison into a fresh water lake. Please find a less vile solution to the problem!	Chad Cheadle
383.04	Herbicides are not a short or a long-term solution in the battle against invasive weeds and cyanobacteria blooms. The toxicity to plant, animal life and the cyanobacteria is a given in that perpetual poisoning of the lake will occur because of the logistical and bad design of the lagoons. With that said, it is doubtful that the lagoon layout will ever	Trish Friedman

Comment Number	Comment	Commenter
	be addressed or filled in with dirt. It then becomes the situation where you are always pushing a boulder uphill because of layout and will always think that you need an herbicide permit which will require constant dosing of the lake with poison.	
216.01	Herbicides are poisons, nearly every time someone has introduced poisons into the environment it has come to haunt us. Tahoe Keys (in addition to a chorus of "never should have been built"'s I hear from the locals) has likely done a bare minimum impact research ("the lake" is probably a lot lower on their list than "our profits"), and costs associated with the problem could VERY likely be retargeted to a mechanical solution, a "kickstarter" like initiative that rewards the inventor of a nonpolluting solution. Again and again, from CO2 and global warming to businesses dumping wastes into waterways - the long term consequences are both more expensive and less predictable. If herbicides arrive in Tahoe's beautiful blues it will be against the advice of the vast majority of locals and intelligent environmentalists, and in the context of "maybe businesses that ignore the long term health of our property should be removed from the community".	Christopher Roberts
76.01	I object to the use of poisons in the lake. The guidelines that prohibit such were developed for a reason and should be respected.	Carolyn Willette
363.03	With my knowledge of using chemicals on anything like this, it is toxic to the overall health of the environment and will undoubtedly become an increased use over time. I have been aware of the issues that have occurred in Clear Lake with mutations and toxicity. Why has this not been further considered?	Benita Luke

Summary Comment 2.5

The test sets precedent for future use of herbicides in the long-term management of the weeds. The herbicide should not be applied and non-chemical means should only be implemented.

Pesticides must be used more than once to be effective but using then more than once would be the worst option for the aquatic environment. One-time use is almost worthless without doing the work to change the conditions that exist in the keys causing the weeds issue in the first place. No matter the outcome of the CMT, the result would call for more herbicides and the perpetual use of chemicals would endanger the health of Lake Tahoe.

Summary Response 2.5

It is important not to confuse a short-term test of herbicides with an application for long term aquatic weeds management. The proposed CMT project includes a one-time test of aquatic herbicides in limited areas of the West Lagoon and Lake Tallac, not a decision to deploy these chemicals for long-term aquatic weeds management. Any future decision about long-term management of aquatic weeds could be based on the results of the proposed CMT, but is not a component of this project, and would be the subject to a separate public and environmental review process (for which public comments would again be taken) before proceeding. Any long-term plan proposing further use of aquatic herbicides would require its own environmental evaluation and permitting.

Comment Table 2.5

Comment Number	Comment	Commenter
312.01	The discussion of the potential for the application of endothall, triclopyr, Rhodamine WT, and lanthanum-modified clay to impact water quality appears to be well described and thorough. For each of the herbicides, the dissipation rate appears to be “weeks and months, not years.” The analysis identifies the impact on water quality as a temporary impact. Clearly, however, the intent will be to use herbicides to a much greater extent. We note as stated by the Lahontan Regional Board, approval of this test does not mean that a larger scale application will automatically be approved. We anticipate significant pressure to expand the use of herbicides if deemed to be successful approach…and to deny a discharge application for a larger scale use would be significantly more difficult if herbicide test results are successful as anticipated.	Dan Askenaizer
30.01	I believe that their use of herbicides is not going to be a onetime use! That is not how herbicides work. One time use is almost worthless without doing the work to change the conditions that exist in the keys. This is a slippery slope. If they are allowed to use herbicides the Keys will point to that and say” look how good it works. This is the way forward. And look at how inexpressive it is to use over a large scale”. We know that herbicides work to kill weeds, so why do we need to test them?	Pablo Ortega
174.01	As a resident in the Tahoe Basin and lover of recreation in Lake Tahoe, I implore you to find a longer-term solution to managing the weed problem in the Tahoe Keys vs. using herbicides. Herbicides will only provide a false hope as they will not kill the weed turions and seeds. The result would be calls for more herbicides and the perpetual use of chemicals would endanger the health of Lake Tahoe.	Janet Atkinson

Comment Number	Comment	Commenter
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305.006	We further contend that this “test” is a precedent for allowing further herbicide treatment in the Keys and around the Lake, which the Sierra Club would fervently oppose.	Tahoe Area Group of the Sierra Club

Summary Comment 2.6

The Tahoe Keys property owners and association should not be allowed to test herbicides ever and should address the underlying issues including existing nutrient sources and boating causing the aquatic weed issues in the keys. Nonchemical methods should be used after the sources of the problem are addressed. Herbicides will no doubt kill the weeds, but the main sources and issues will remain unaddressed, and the herbicides will cause even more issues to deal with. The extreme mismanagement of the keys is exacerbated by lack of enforcement of general practices that would prevent the storm drains from transporting chemicals on the public streets, nutrients, and trash into the lagoon waters.

The Tahoe Keys should have never been built and should be restored to its historical original state.

The source of the problem needs to be controlled to create a lasting solution that will stop the weeds from having conditions that allow for the prolific growth. The main conditions allowing the weeds to grow are low water levels, nutrients from multiple sources, fragments of weeds carried by boaters or harvesters, allowing stormwater runoff into the lagoons, and not using the circulation system created to address this issue a long time ago. Dredging out or filling in the Tahoe Keys should be considered as a real option for reducing the nutrients from plant growth and decay. Boating needs to be regulated or completely stopped until the weed issues have been solved in the keys before they make the weed issue in Lake Tahoe worse.

Summary Response 2.6

The Tahoe Keys Property Owners Associations informs it members to avoid using fertilizers that contain phosphorus and has eliminated fertilizer use from homeowner association landscape services. On why stormwater and landscape irrigation were estimated to be small components of overall nutrient loading in the main lagoon, see Summary response 6.2 and 10.3. For an explanation on why the Lahontan Water Board is not required to revise, improve, or implement all non-point source controls prior to allowing a point source discharge, see summary response 4.5.

It was determined that the restoration of the Tahoe Keys to its historical original state is not within the scope of the purpose and need for the CMT, which is to test and evaluate the efficacy of different aquatic weeds control methods. The redesign of the Tahoe Keys Lagoons is not part of the proposed CMT project nor is blocking off the Keys and removing accumulate materials. See Summary response 6.5 and Summary response 6.6.

Controlling illegal storm water discharges is within the scope of responsibilities of the Water Board however it is not a subject of the proceeding on the January 12-13, 2021, board meeting. For further discussion on enforcement, please see Summary Response 9.11.

Regarding boating restrictions and barriers, please see Summary Response 6.5 and Summary Response 9.1 Regarding boat inspections, please see Summary Response 9.5.

Comment Table 2.6

Comment Number	Public Comment	Commenter
305.003	Also, instead of attacking the symptoms, long-term solutions that do not involve perpetual use of herbicides must be developed to address the systemic underlying sources of the problem.	Tahoe Area Group of the Sierra Club
337.03	As residents, we have seen NO ENFORCEMENT of common sense safety rules such as requiring lawn clipping catch bags on lawnmowers, washing and cleaning of boats using strong and toxic chemicals, in public streets at end of	Mr. and Mrs. Steve Bridges

Comment Number	Public Comment	Commenter
	boating season (toxic cleaners then flow directly into street storm drains that empty directly and unfiltered into lagoons), and excessive and unfettered use of all kinds of fertilizers on landscape areas, then abundantly over irrigates so runoff containing the fertilizers run from gutters to the storm drains. Repeat, there is NO ENFORCEMENT whatsoever despite TKPOA's false claims to the contrary. about workshops and so on. The rules are NOT ENFORCED. One simply has to review the debacle with the present Tahoe Keys mismanagement of the water well contamination, discovered many years ago, with which no corrective measures were taken, that has resulted in home after home of dead landscaping and severe limitations on water provided to properties.	
30.05	Why is it necessary to test herbicides? Herbicides have been tested already, not in Lake Tahoe. There is no doubt that herbicides will kill the weeds in the Tahoe Keys.	Pablo Ortega
76.04	This a band aid solution while the patient is hemorrhaging. The agencies are wringing their hands about the crisis while being unwilling to make real choices for the health of the lake.	Carolyn Willette
158.01	Two wrongs do not make a right. The Tahoe Keys is an environmental disaster. Homeowners need to mitigate the problem created without using herbicides. Chemicals should not be introduced into the Lake Tahoe watershed for any reason. Government credibility rests upon citizens like me believing you do the right thing for the environment, not the creators of the problem. There is a fine line between compromise and complicity.	Kathryn Bricker
168.01	For all the reasons we all know so well, please do not approve the Tahoe Keys Owners Association request to use herbicides to rid their channels of invasive weeds. Please tell them to take advantage of the low water level, empty the keys, dredge the channel bottoms and implement weed-prevention measures. If weeds cannot be controlled by upgrading storm water runoff systems and elimination of fertilizers; boats should not be allowed to exit the Keys. The entire Lake Tahoe ecosystem is at risk. Do not put residents' health at risk as well.	Ronda Tycer
194.02	The fact that they are resorting to dumping chemicals into our beautiful, clear lake before they have really done everything they can do at the frontlines is despicable. Please reconsider the efforts the keys is actually putting into fixing their own problems with the algae before dumping in chemicals. Thank you	Alyssa McDermott

Comment Number	Public Comment	Commenter
252.01	I have sent an open letter to Mr. Patterson with the League to Save Lake Tahoe on this subject and have included it below. In addition to the comments that I have sent to him, I would like to draw attention to the FAQ from the Tahoe Keys weed program website (see attached screenprint) that acknowledges that it is the nutrients in the Keys that are creating their weed problem and that they have yet to provide a solution that addresses the root of the nutrient problem.	Julie Soules
361.01	I reviewed many of the documents provided on this project web page and other links. Though some of them include errors or misleading statements, overall I commend the thoroughness, detail, and quality and accessibility of the presentation in the reports from Sierra Ecosystem Associates and some of the other documentation as well. For the purposes of Board deliberations, I emphasize the following specific points. There are two closely interrelated problems at issue here: AIS infestation and nutrients. The herbicide proposal only addresses the first, in a way that there is no chance for lasting benefit because the growth of AIS depends on the excessive nutrient concentrations. They'll grow right back after herbicide treatment. The only way it is worthwhile to apply herbicide is as a permanent ongoing program, and that is an unacceptable course of action for Lake Tahoe contiguous waters. Before aquatic herbicide application is approved, nutrients within Keys waters must be brought into the required range for Lake Tahoe as a whole. Careful harvest and removal of aquatic vegetation, by means that minimize shredding it into dispersed fragments, and possible dredging of sediment, are direct measures that may be costly to implement but will actually contribute toward solving both problems (without wasting time and money on herbicides and monitoring). Empirically, the AIS problem within the Keys is continuing to get worse, and nitrogen and phosphorus concentrations as documented in the 2017 Baseline Water Quality Report for the Tahoe Keys Lagoons are still mostly far exceeding the Board's Water Quality Objectives. Therefore, simply put, Order R6T-2014-0059 is failing to achieve the nutrient reductions that are needed; the Order must be strengthened considerably.	Adrian Juncosa
365.061	The TKPOA still needs to change the conditions for sustainable control of weeds and then once the conditions are changed the many non- chemical methods can be used in a larger more effective scale and for the longer periods of	Elise Fett

Comment Number	Public Comment	Commenter
	time needed to eliminate the weeds. I was going to list all the non-chemical methods that are available including using the large air activated mats rather than the smaller ones etc. etc., however I think all of you are well aware of those many many options. Also, again, please remember cost should not be an excuse for using the short term solution that will be devastating in the long run. As the environmental center at UC Davis educates people on every day, humans have already made far too many mistakes for Lake Tahoe .... adding aquatic herbicides would be the worst	
305.007	The permitting agencies, the Tahoe Regional Planning Agency (TRPA) and Lahontan Regional Water Quality Control Board (Lahontan), have prioritized recreation by the private boaters in the Keys over the health and well-being of Lake Tahoe, a national treasure and Tier III Outstanding National Resource Water. After decades of regulatory neglect and rampant weed growth in the Keys, Lahontan and TRPA are now desperately trying to find a solution that will keep the private boatowners at the Keys happy, rather than tackling the very difficult tasks required by their mission to protect and preserve Lake Tahoe.	Tahoe Area Group of the Sierra Club

Category 3 Missing Information or Unavailability of Documents

Summary Comment 3.1

Lahontan is not disclosing information about plans and procedures which should be disclosed to the public. There is a general lack of transparency about and public noticing of supporting documents, other plans and relevant background data, which contain information supporting many of the assurances in the draft permitting documents that regulatory standards will be met.

It is completely unacceptable to (a) not disclose the APAP and LMCAP to the public, (b) not allow the public to provide comment on these plans, and (c) not even require that they be submitted to the Water Board before proceeding with adoption of this Order

The MMRP asserts that impacts will be mitigated by a Spill Prevention and Response Plan that will be submitted for review by Lahontan at a later date. The public should be granted ample opportunity to comment on this plan (at least 30 days); this draft permit does not make provision for public review and comment.

Summary Response 3.1

The Lahontan Water Board staff has made public documents available when requested, including the updated APAP. But the Clean Water Act and state law do not require every report or document submitted to be posted online. Any document in the administrative record for the NPDES permit may be requested by the public, and the Lahontan Water Board has made those documents publicly available.

The public also had ample opportunity to comment on the NPDES permit, including the terms of the APAP amendments, LMCAP, and spill and prevention plans indicated in the NPDES permit. The public will also have opportunity to make oral comments on the NPDES permit in a hearing before the Board in January. The public has not been deprived of an opportunity to comment on the minimum requirements and best management controls to be included in the plans.

The underlying regulation discussed in *Waterkeeper Alliance v. USEPA*, 399 F.3d 486, 503 can be distinguished from the NPDES permit under consideration by the Lahontan Water Board. The case involved a challenge to an administrative rule promulgated by the Environmental Protection Agency (EPA) under the Clean Water Act (CWA) to regulate the emission of water pollutants by concentrated animal feeding operations (CAFO). The court determined that the rule violated the Clean Water Act to the extent U.S. EPA allowed permitting authorities to issue permits without reviewing the terms of nutrient management plans, forestalled public participation by preventing public access to the nutrient management plans, and to the extent it allowed the terms of the nutrient management plans to not be indicated in the NPDES permit. The instances in which the Rule violated the Act’s public participation requirements are not present in the draft NPDES permit under consideration by the Lahontan Water Board. In particular, the terms of the APAP amendment, LMCAP, and other plans are included in the NPDES permit through NPDES requirements that mandate the minimum components and best

management practices to be included in those plans. The Lahontan Water Board will also be reviewing each of those plans to determine if they meet the requirements specified in the NPDES permit, and Executive Officer approval must be obtained. Furthermore, in contrast to the EPA CAFO rule which allowed nutrient management plans to be held by the discharger, thus preventing public access, the plans required in the NPDES permit are required to be submitted to the Lahontan Water Board. Once submitted to the agency, the plans are publicly available, and any member of the public may request to receive them.

Following permit approval, the two APAP amendments must be submitted to the Lahontan Water Board prior to herbicide application and take into account spring plant surveys and water level surveys. The pre application plant survey will provide information to select which of the two herbicides to use at test sites. The selected herbicide treatment concentration will depend on the location and quantity of aquatic weeds, and the volume of water to be treated in a given area.

APAP submittal deadlines contained in the NPDES permit have been revised to allow time for public comment, and to require the discharger to notify the public when the APAP amendments have been submitted to the Lahontan Water Board. The first two paragraphs of section VI.C. page 12 of the NPDES permit have been revised to the following: “The Discharger must submit two APAP[1] amendments and both amendments must be approved before an application event may occur. The first APAP amendment APAP must address items VI.C.1-3, below, and must be submitted **within 45 days after** the adoption date of this Order to the Executive Officer for approval and must be made available to the public for a 30-day period to allow for public comment.

The second APAP amendment must address items VI.C.4-6, below, must be submitted at least **30 days before** the expected day of first application of aquatic herbicides and Rhodamine WT to the Executive Officer for approval, and must be made available to the public for a 15-day period to allow for public comment.”

The Lanthanum Modified Clay Application Plan describes the use of lanthanum clay as a potential mitigation that must be implemented only when conditions exist that will promote a possible cyanobacteria bloom due to the proposed project. Moreover, herbicides will be applied early in the growing season to minimize the amount of plant decay available to enhance phosphorous production. The comparative phosphorus concentrations at control sites and other parts of the test area will alert the discharger to favorable conditions for project-induced cyanobacteria growth.

The NPDES permit has been revised to change the deadlines for LMCAP submittal to allow time for public comment, and to require the discharger to notify the public when the LMCAP has been submitted to the Lahontan Water Board. The first sentence of section VII.B page 17 of the NPDES permit has been revised to the following: “The Discharger must submit a LMCAP **by April 1, 2022** for the application of lanthanum-modified clay if it is utilized as a HAB control consistent with the requirements of section VI.C.3.e, above,

to the Executive Officer for approval, and must make the LMCAP available to the public for a 30-day period to allow for public comment."

For comments regarding HABs, see response to comments Summary Response 10.1.

Comment Table 3.1

Comment Number	Public Comment	Commenter
161.01	The draft permit refers to an APAP from April of this year, but I cannot find it anywhere on the website. Could you send it to me?	Tobi Tyler
305.016	Lahontan is not disclosing information about plans and procedures which should be disclosed to the public. There is a general lack of transparency about and public noticing of supporting documents, other plans and relevant background data, which contain information supporting many of the assurances in the draft permitting documents that regulatory standards will be met. Some of the required plans have not even been provided to Lahontan, including the Best Management Practices (BMP) Implementation Plan, the Spill Response Plan and the Lanthanum-Modified Clay Application Plan (LMCAP) for the application of lanthanum-modified clay to control harmful algal blooms (HABs), which are expected to occur after the rapid release of nutrients from dying plant material after treatment. A "Draft Spill Contingency Plan" was apparently included in the APAP submitted to Lahontan on April 30, 2021, but was submitted under the title Updated Basin Plan Exemption Application and Updated Control Methods Test Application, which does not reference the Aquatic Pesticide Application Plan in the title. This document containing the APAP was also not posted on Lahontan's website with the other draft permitting documents. This document should have been posted and explicit instructions for accessing the APAP should have been provided to the public. Another example of the lack of transparency is Lahontan's not disclosing to the public their letter to TKPOA dated December 29, 2020 and the detailed additional information requested in that letter, which is the basis for the April 30, 2021 update of the APAP. Furthermore, the treatment areas specified in the current APAP are allowed to change based on pre-treatment macrophyte surveys and the final APAP is not required until 30 days prior to treatment. The very fact that the APAP could be completely altered just 30 days prior to herbicide treatment is unacceptable.	Tahoe Area Group of the Sierra Club
305.017	Even the State Water Resources Control Board's General Permit (GP) for discharges of aquatic pesticides requires that	Tahoe Area Group

Comment Number	Public Comment	Commenter
	the APAP be provided to the State Board 90 days prior to pesticide use to ensure that the public is given 30 days to comment. This draft Order requires that amendments to the APAP be provided to Lahontan within 60 days after permit issuance and 30 days before the pesticide discharge is to occur. Given these timelines, the public will have no opportunity to review and comment on the amendments to the APAP and the final details and specifics of this plan to discharge herbicides into Lake Tahoe waters for the first time. This violates the Clean Water Act. (See, Waterkeeper Alliance v. USEPA, 399 F.3d 486, 503 [“The CAFO Rule deprives the public of the opportunity for the sort of regulatory participation that the Act guarantees because the Rule effectively shields the nutrient management plans from public scrutiny and comment. . . . This scheme violates the Act's public participation requirements in a number of respects. “])	of the Sierra Club
305.033	Section VI.C requires the TKPOA to submit “two APAP amendments” to Lahontan to supplement their April 30, 2021 APAP, which is not called an APAP and is not provided to the public on Lahontan’s website. The first amendment, which isn’t required until 60 days after the permit is issued, (anticipated in January 2022), must include the BMP Implementation Plan, the Spill Response Plan, and plans to prevent migration of the herbicides to receiving water, to respond to HABs and exceedances of receiving water limits, to mitigate oxygen demand from dead organic matter, and to minimize sediment disturbances during turbidity curtain and aerator installation and removal. It is incredible that the Water Board plans to proceed with approving this project without having first reviewed the Discharger’s final BMP Implementation and Spill Response plans, not to mention not providing these plans to the public. All of these plans and contingency measures should have been submitted to Lahontan with the draft permitting documents in mid-September and made available to the public to allow the public enough time to review them and comment before the November 1, 2021 deadline. This failure to make these plans available for Board review and public comment is unacceptable. (See, Waterkeeper Alliance v. USEPA, 399 F.3d 486, 503 [“The CAFO Rule deprives the public of the opportunity for the sort of regulatory participation that the Act guarantees because the Rule effectively shields the nutrient management plans from public scrutiny and comment. . . . This scheme violates the Act's public participation	Tahoe Area Group of the Sierra Club

Comment Number	Public Comment	Commenter
	requirements in a number of respects. "]) The second amendment, which is required only 30 days prior to the anticipated herbicide discharge in the spring of 2022, must include the final map showing treatment areas and the proposed dates of treatment. The failure to make these two APAP amendments available for public review and comment is unacceptable. This permit, including the APAP, should be at least as stringent the State Board's General Permit and should be available to the public early enough to allow for public review and comment during the public comment period. Therefore, the second amendment should be provided to the public a minimum of 90 days prior to the discharge and the public should be allowed to provide comments.	
305.034	The procedure for APAP processing, approval and modifications in Section VI.D does not include public participation, which is unacceptable.	Tahoe Area Group of the Sierra Club
305.0345	Section VII of the draft Permit discusses requirements around the use of lanthanum modified clay to reduce phosphorus levels and minimize HABs. However, here again, Lahontan has not even received TKPOA's LMCAP, and an LMCAP is required only if TKPOA plans to use lanthanum-modified clay to control HABs. The requirement to provide the LMCAP is tied to the required plan to respond to HAB outbreaks, which is not due until 60 days after the permit is issued. In addition, the LMCAP would only be used if HABs are visually determined to be present. First, visual inspection for the occurrence of HABs does not reliably determine the presence of HABs7. Relying on a visual inspection to determine if a HAB will occur will most likely only result in a responsive action rather than a preemptive action, since visual inspection detects an HAB that is already occurring and does nothing to prevent one. Second, HABs have been occurring every summer at the Keys and are almost certain to occur during the CMT. It is unreasonable and senseless to assume that a bloom will not occur and not have a LMCAP ready for review even by Lahontan prior to adoption of the permit, not to mention review by the public. The LMCAP should have been submitted to Lahontan and been made available to the public together with the APAP. Third, it is unreasonable not to be prepared for a bloom by including daily monitoring for phosphorus and nitrogen levels. Fourth, the draft permit ignores the evidence that herbicide use increases the likelihood of harmful algal	Tahoe Area Group of the Sierra Club

Comment Number	Public Comment	Commenter
	blooms, including deadly cyanobacteria (Harris et al, 2016)8. The current draft permit completely excludes the public from review of these plans and requires inadequate monitoring to anticipate a HAB, which is unacceptable.	
305.058	The summary of reports due in Table E-6 is another example of the lack of transparency. As previously stated, all plans, including the APAP and LMCAP, should be made available to the public within the public comment period. Lahontan Water Board staff should have made the APAP available to the public when they received the draft APAP in April 2021. Allowing the final APAP and LMCAP to be submitted 30 days prior to discharge is completely unacceptable.	Tahoe Area Group of the Sierra Club
305.079	Also, as previously stated, it is completely unacceptable to (a) not disclose the APAP and LMCAP to the public, (b) not allow the public to provide comment on these plans, and (c) not even require that they be submitted to the Water Board before proceeding with adoption of this Order.	Tahoe Area Group of the Sierra Club
305.091	Impact Issue EH-2 in Table ES-1 of the DEIR/DEIS is “Detectable Concentrations of Herbicides and Degradants in Receiving Waters”., The MMRP asserts that this impact will be mitigated by a Spill Prevention and Response Plan that will be submitted for review by Lahontan at a later date. The public should be granted ample opportunity to comment on this plan (at least 30 days); this draft permit does not make provision for public review and comment.	Tahoe Area Group of the Sierra Club
305.098	Impact Issue EH-4 in Table ES-1 of the DEIR/DEIS is “Introduction of Toxic Substances into the Environment.” The MMRP states that this impact will be mitigated by the Spill Prevention and Response Plan. The comments above regarding the lack of a 30-day public comment period and the lack of constituent specific exemptions apply to this mitigation measure as well.	Tahoe Area Group of the Sierra Club
263.04	1. Requirement to submit amended APAP 60 days following NPDES Permit adoption. Since this amendment requires more details on best management practices and mitigation measures, I request that the Water Board provide this document to the public for review and comment. Staff should consider any comments, suggestions for revisions prior to providing feedback to TKPOA and prior to Executive Officer approval. At this point, insufficient details exist within the documents provided to determine whether application of herbicides, rhodamine WT and lanthanum clay will be conducted to reduce water quality impacts to the lowest levels feasible.	Lauri Kemper

Summary Comment 3.2

The commenters requested an extended public review period due to the volume of information contained in the record, the claim that some of the information on the discharger's website is outdated, and some pertinent information was presented without ample time for public review.

Summary Response 3.2

Any document in the administrative record for the NPDES permit is publicly available and may be requested by the public. The Lahontan Water Board has provided documents upon request.

Tahoekeyweeds.org is a website hosted by Zephyr Collaboration with the aim of sharing the work of the collaborative Stakeholder Committee, while serving as an information resource for the public. This website was created to facilitate communication with the public on the environmental impact report/environmental impact study. While this website serves as an additional resource of the public, it is not the official website of the Water Board. Notices and the NPDES permit can be found on the Water Board website. Additional information describing why the Lahontan Water Board is not required to post all documents on the website can be found in Summary Response 3.1.

With respect to the documents listed on page F-12, two of those documents are associated with annual Baseline Water Quality Assessments collected by Tahoe Keys Property Owner Association pursuant to their Waste Discharger Requirements. These documents and the others listed in Attachment F-13 were listed as references in the Draft EIR.

An extension to the public comment period has not been granted. See Summary Response 12.10

Comment Table 3.2

Comment Number	Public Comment	Commenter
272.02	1. The TWSA Board acknowledges the significant investment of resources over a long period of time by the regulators, scientists, stakeholders, facilitation teams, project proponents and interested parties. We are now reviewing a project built from years of ongoing discussion, research and stakeholder input. We acknowledge the extensive requirements which have been developed for planning, implementation, communications, mitigation, monitoring and reporting for the proposed project. There is a tremendous amount of information presented before us. As a note on process: during the first several weeks of this	Tahoe Water Suppliers Association Board

Comment Number	Public Comment	Commenter
	comment period, the Application information posted on the www.tahoekeysweeds.org website was the outdated 2019 project description. This is unfortunate because the updated 2021 application used to draft the Lahontan documents under review contained important revised information about the actual project but was not updated until October 1. As such, we request that the public comment period be extended so that the public has the full benefit to review and comment on all of the current documents.	
305.018	A further example of the lack of transparency is the fact that the background data – "existing water quality, sediment quality, and biological data (fish and benthic macroinvertebrate surveys) for the Tahoe Keys Lagoons and Lake Tallac" – in the following documents, referenced in the Fact Sheet of the Tentative Order as the basis for the Order, are also not on Lahontan's website: 1. Final Summary of Results: Baseline Water Quality in Tahoe Keys Lagoons (Environmental Science Associates, 2019), 2. 2016 Baseline Water Quality Report for the Tahoe Keys Lagoons - Volume 1 (Sierra Ecosystem Associates, 2017), 3. 2017 Sediment Baseline Report for the Tahoe Keys Lagoons, (Sierra Ecosystem Associates, 2018), and 4. 2019 Fish and Benthic Macroinvertebrate Surveys in Tahoe Keys Lagoons (Sierra Ecosystem Associates, 2020). There is apparently no plan by Lahontan to make these documents available to the public except in response to specific individual requests. These documents should have been posted with the documents available for public review. This failure to inform the public about supporting documents and to make them available does not bode well for informed public participation in Board decisions on the Proposed Project, since neither Lahontan nor TKPOA have fully disclosed plans and background data to the public.	Tahoe Area Group of the Sierra Club
305.071	The documents listed on page F-12 have not been made available to the public. These	Tahoe Area Group of the Sierra Club

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	documents should have been made available during the Draft EIR/EIS phase of this project but were not.	
324.02	Many documents containing information essential to understanding the permitting documents were not posted on the Aquatic Weed Control in the Tahoe Keys webpage. The documents that were not posted include: the TKPOA application, the 6/14/21 revision of the Monitoring and Reporting Program, and the external peer review letter. LWB staff did supply copies of some documents in response to individual requests, but the documents should have been posted.	John Moore

Category 4 Antidegradation

Summary Comment 4.1

The finding that granting the exemption will not result in long term degradation of water quality in Lake Tahoe is supported by the Antidegradation Analysis. The Project, and the discharges permitted in the Tentative Order are consistent with Antidegradation Policies.

Summary Response 4.1

Thank you for your comment and your support of the Water Board's findings and antidegradation analysis.

Comment Table 4.1

Comment Number	Public Comment	Commenter
262.03	Since the Antidegradation 1 Analysis demonstrated no long-term water quality deterioration,1 we are supportive of the Proposed Project (Project) and recommend it as the Preferred Project to move forward in the Final Environmental Impact Report/Environmental Impact Statement (FEIR/S).	League to Save Lake Tahoe
262.07	The League supports the scientifically rigorous conclusions that Lahontan provided in this tentative Resolution for including chemicals as part of the test, and supports the finding that granting the exemption will not result in long term degradation of water quality in Lake Tahoe.	League to Save Lake Tahoe
262.16	We also believe that the DEIR/S and antidegradation analysis is objectively written, legally defensible and science-based, leading to the conclusion that the Proposed Project with testing of all methods – chemical and non-chemical – would not have a significant negative impact on the environment at Lake Tahoe.	League to Save Lake Tahoe
262.19	A scientific test thoroughly investigated to protect water quality Best available science as utilized by Lahontan Staff, water quality consultants, and the Tahoe Science Advisory Council's independent review indicates that the Control Methods Test (CMT) will not degrade Lake Tahoe's water quality. Lahontan staff concludes in the Tentative Waste Discharge Requirements and NPDES Permit that water quality changes will be short-term with no permanent degradation and Outstanding Natural Resource Water will be .3 protected.3 (3 Tentative Waste Discharge Requirements and NPDES Permit, pg 118: ""water quality changes in the ONRW will be short-term and temporary, will not permanently degrade water quality, and will protect the existing uses in the ONRW.	League to Save Lake Tahoe

Comment Number	Public Comment	Commenter
	Therefore, the water quality of the ONRW is maintained and protected.") This Project is a thoroughly vetted test; it is not a full-scale, long-term program. The goal of the test is to learn which methods are most effective, on their own and in combination with other methods. Of course, a large-scale approach – even a three-year test project – needs to not only achieve a 75% reduction in biomass (as stated in the Lahontan DEIS/EIR goal) but also meet the performance measure of protecting the Lake's water quality in the Tahoe Keys .4 lagoons, including antidegradation requirements required by the U.S. EPA.4 Harvesting and current methods have not come close to meeting this stated goal.	
262.23	Joining the decades of work conducted by the TKPOA, the League has been working to address the aquatic weed infestation in the Tahoe Keys lagoons for the past nine years. Our involvement includes the last three years working as part of an enhanced Stakeholder process, which resulted in the TKPOA Project application that is the subject of this tentative Resolution, tentative Permit, and Mitigation Monitoring and Reporting Program. The League has also worked to address aquatic weeds through our Eyes on the Lake programs, bubble curtains, and support of other testing methods throughout Lake Tahoe. Since the Antidegradation Analysis demonstrated no long-term water quality deterioration we are supportive of the Proposed Project and recommend it as the Preferred Project to move forward in the Final EIR/S. We must act now by testing as many feasible and effective methods as possible, while sparing the Lake from any harm. The Project achieves these goals. The League will continue our extensive involvement to address the aquatic weed infestation in the Tahoe Keys lagoons while protecting the health and clarity of Lake Tahoe. Thank you for the opportunity to comment and do not hesitate to contact us directly with any questions.	League to Save Lake Tahoe
328.02	TKPOA appreciates the in-depth antidegradation analysis conducted in Attachment G to the Tentative Order. Specifically, the short half-life of the active ingredients—and their residuals—to be used in the Project (endothall and triclopyr) and the fact that this Project represents a test to determine efficacy of the use of herbicides to control aquatic weeds support the Regional Board staff's conclusions that any water quality impact associated with the Project will be temporary, if not fleeting, and not	Kirk Woolridge

Comment Number	Public Comment	Commenter
	permanent. The same can be said for the dye tracer Rhodamine WT and lanthanum-modified clay, which are to be used to track movement of herbicides and residuals and to mitigate any impacts that weed die-off might have on dissolved oxygen levels in treatment areas, respectively. The antidegradation analysis also discusses the importance of the Project to Lake Tahoe, noting that effectively controlling weed populations protects public health or safety, as well as Lake Tahoe's ecosystems, water quality, clarity, and recreation uses. (Attachment G, at p. G-17.) Thus, TKPOA agrees and supports the conclusion that the Project, and the discharges permitted in the Tentative Order are consistent with the State Antidegradation Policy (State Water Resources Control Board, Resolution 69-16) and federal antidegradation provisions in 40 C.F.R. section 131.12.	
336.03	The Antidegradation Analysis determined water quality changes to be temporary and short-term and will protect the existing uses in Lake Tahoe. No long-term water quality deterioration was identified, and the Mitigation Monitoring and Reporting program proposed for the project rigorously addresses documenting environmental responses to the control methods proposed. This monitoring data will be used to inform managers and stakeholders as a long-term strategic plan for invasive species control in the Tahoe Keys Lagoons is developed.	Tori Walton
166.07	In response to the Sierra Club's six 'talking points': 1. Available non-chemical methods (including laminar flow aeration and ultraviolet light) have been implemented and evaluated, and will continue to be implemented and evaluated. 2. The proposed Project includes elements of the Enhanced Alternative 1 (3-years). But use of the two herbicides (about one month in 1-year) target AIP and will not degrade water in Lake Tahoe. 3. The Sierra Club does not explain how use of Triclopyr and Endothall will "allow water quality to be degraded". An AA (antidegradation analysis) will be a condition of the CMT, as described in the MMRP and the Staff Report, criteria 4, pp 10-12. 4. A one-time test of two herbicides may prove they are effective in killing AIP. Subsequent treatments will require regulatory approvals. 5. Nutrients from AIP killed by Triclopyr and Endothall are a one-time problem, especially if dead plants are removed. 6. Installation of a physical barrier in the west channel is not practical or legally feasible. It will not control AIP in the Tahoe Keys Lagoons.	Albert Chandler

Summary Comment 4.2

The antidegradation analysis will be performed prior to, during, and after the periods the two herbicides are applied.

Summary Response 4.2

The antidegradation analysis is included in the NPDES permit. The Regional Board will not, nor is it required to, conduct another antidegradation analysis during and after the aquatic herbicides are applied. The findings in the NPDES permit state that the Regional Board has considered antidegradation pursuant to 40 CFR § 131.12 and State Board Resolution No. 68-16 and finds that the permitted discharge is consistent with those provisions. Monitoring will be conducting prior, during, and after application.

Comment Table 4.2

Comment Number	Public Comment	Commenter
166.05	3. The antidegradation analysis will be performed prior to, during, and after the periods the two herbicides are applied. See the Mitigation, Monitoring and Reporting Program (MMRP), 4 pages plus 23 pages.	Albert Chandler

Summary Comment 4.3

The Regional Board may grant mixing zones and dilution credits in NPDES permits for pollutants not covered by the SIP and may grant mixing zones and dilution credits in WDRs for toxic (including priority pollutants), conventional (as defined by Clean Water Act section 304(a)(4)), and non-conventional (other than toxic or conventional) pollutants. If the Regional Board allows a mixing zone and dilution credit, the permit or WDR shall specify the method by which the mixing zone was derived, the dilution credit granted, and the point(s) in the receiving water where the applicable criteria/ objectives must be met. An antidegradation analysis would discuss many of these items with regard to the allowance of a mixing zone. The proposed Permit does not contain a mixing zone analysis. Failure to include a mixing zone analysis violates the Basin Plan requirements for mixing zones and the Antidegradation Policy.

Summary Response 4.3

The NPDES permit does not grant a mixing zone and dilution credit, and therefore a mixing zone analysis is not required. A mixing zone is a limited area where initial dilution of a discharge occurs and water quality objectives may be exceeded. In NPDES permitting, mixing zones and dilutions credits can be granted to allow limited dilution of the discharged pollutants to occur before determining compliance with water quality objectives or in setting effluent limitations.

On January 11, 2009, the Sixth Circuit Court of Appeals confirmed EPA’s position that pesticides are not generally pollutants when the chemical pesticide is intentionally

applied to water for an intended useful purpose and leave no excess portions after the intended purpose is performed. However, “pesticide residual” are pollutants. (71 Fed. Reg. at 68,487.) Pesticide residues are those portions of the pesticide that remain in the water when the intended purpose of target pest elimination have been completed. (71 Fed. Reg. at 68,487, *National Cotton Council of America v. U.S. E.P.A.* (2009) 553 F.3d 927, 936-936.) Likewise, the Basin Plan acknowledges that compliance with water quality objectives in receiving waters is required at all times during and after the treatment event. However, within the treatment area, the Board in establishing the pesticide prohibition and exemption process, acknowledged and authorized impacts to occur during the treatment event (the period during which the aquatic application is actively killing or controlling the target pest within the treatment are) when exemption criteria are satisfied. Consistent with this framework, receiving waters are defined in the draft NPDES permit as waters outside of the treatment area at any time and as inside the treatment area after the treatment event (i.e. 21 days). In following the definition of pollutant in *National Cotton Council of America v. U.S. E.P.A.,* the Lahontan Water Board is not required to grant a mixing zone and dilution credit or conduct a mixing zone analysis for the application of herbicides, as the pollutant is the residual pesticides.

Comment Table 4.3

Comment Number	Public Comment	Commenter
346.06	The Basin Plan beginning on page 4-2 specifies the requirements for mixing zones: “Mixing Zones - The State Board has adopted conditions for use of mixing zones and dilution credits for toxic priority pollutants in the “Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California Policy” (State Board Res. No. 2005-0019). This policy is commonly referred to as the “State Implementation Policy” or SIP. A copy of the SIP is included in Appendix B of this Basin Plan. The standards implemented through the SIP are those promulgated by the USEPA in the National Toxics Rule and California Toxics Rule, and the narrative water quality objectives for toxicity in Basin Plans. The Regional Board may grant mixing zones and dilution credits in NPDES permits for toxic priority pollutants in accordance with the SIP. The Regional Board may grant mixing zones and dilution credits in NPDES permits for pollutants not covered by the SIP and may grant mixing zones and dilution credits in WDRs for toxic (including priority pollutants), conventional (as defined by Clean Water Act section 304(a)(4)), and non-conventional (other than toxic or conventional) pollutants under any of the following conditions. A mixing zone shall be as small as practicable. The following conditions must be met in allowing a mixing zone: A. A mixing zone shall not: (1) compromise the integrity of the entire water body; (2) cause	Richard McHenry

Comment Number	Public Comment	Commenter
	acutely toxic conditions to aquatic life passing through the mixing zone; (3) restrict the passage of aquatic life; (4) adversely impact biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws; (5) produce undesirable or nuisance aquatic life; (6) result in floating debris, oil, or scum; (7) produce objectionable color, odor, taste, or turbidity; (8) cause objectionable bottom deposits; (9) cause nuisance; (10) dominate the receiving water body or overlap a mixing zone from different outfalls; or (11) be allowed at or near any drinking water intake. A mixing zone is not a source of drinking water pursuant to the Sources of Drinking Water Policy (State Board Res. No. 88-63). B. The Regional Board shall deny or significantly limit a mixing zone and dilution credit as necessary to protect beneficial uses or comply with other regulatory requirements. Such situations may exist based upon the quality of the discharge, hydraulics of the water body, or the overall discharge environment (including water column chemistry, organism health, and potential for bioaccumulation). If the Regional Board allows a mixing zone and dilution credit, the permit or WDR shall specify the method by which the mixing zone was derived, the dilution credit granted, and the point(s) in the receiving water where the applicable criteria/ objectives must be met. The application for the permit or WDR shall include, to the extent feasible, the information needed by the Regional Board to make a determination on allowing a mixing zone, including the calculations for deriving the appropriate receiving water and effluent flows, and/or the results of a mixing zone study. If the results of the mixing zone study are unavailable by the time of permit or WDR issuance/reissuance, the Regional Board may establish interim requirements." The State and Federal Antidegradation Policies require an antidegradation analysis would require an examination of: 1) existing applicable water quality standards; 2) ambient conditions in receiving waters compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability; 5) best practicable treatment and control (BPTC); 6) comparison of the proposed increased loadings relative to other sources; 7) an assessment of the significance of changes in ambient water quality and 8) whether the waterbody was a ONRW. A minimal antidegradation analysis must also analyze whether: 1) such degradation is consistent with the maximum benefit to the people of the state; 2) the	

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	activity is necessary to accommodate important economic or social development in the area; 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved; and 4) resulting water quality is adequate to protect and maintain existing beneficial uses. An antidegradation analysis would discuss many of these items with regard to the allowance of a mixing zone. The proposed Permit does not contain a mixing zone analysis. Failure to include a mixing zone analysis violates the Basin Plan requirements for mixing zones and the Antidegradation Policy.	
346.05	The proposed Permit requires sampling to commence one week after an herbicide application and to demonstrate compliance within 21 days within the treatment area. This sampling schedule will not capture exceedances of the Receiving Water Limitations for the specified herbicides for one to three weeks. This is a clear allowance to exceed permit Limitations for a specified period of time. This constitutes a Mixing Zone. “A mixing zone is an area where an effluent discharge undergoes initial dilution and is extended to cover the secondary mixing in the ambient waterbody. A mixing zone is an allocated impact zone where water quality criteria can be exceeded as long as acutely toxic conditions are prevented” according to EPA’s Technical Support Document for Water Quality-based Toxics Control (TSD) (USEPA, 1991), (Water quality criteria must be met at the edge of a mixing zone.) Mixing zones are regions within public waters adjacent to point source discharges where pollutants are diluted and dispersed at concentrations that routinely exceed human health and aquatic life water quality standards (the maximum levels of pollutants that can be tolerated without endangering people, aquatic life, and wildlife.) Mixing zone policies allow a discharger’s point of compliance with state and federal water quality standards to be moved from the “end of the pipe” to the outer boundaries of a dilution zone.	Richard McHenry
346.15	The Regional Board has also failed to include a mixing zone analysis as is required by the Basin Plan; If the Regional Board allows a mixing zone and dilution credit, the permit or WDR shall specify the method by which the mixing zone was derived, the dilution credit granted, and the point(s) in the receiving water where the applicable criteria/ objectives must be met. The application for the permit or WDR shall include, to the extent feasible, the information needed by the Regional Board to make a determination on allowing a	Richard McHenry

Comment Number	Public Comment	Commenter
	mixing zone, including the calculations for deriving the appropriate receiving water and effluent flows, and/or the results of a mixing zone study. While the Regional Board assesses that there will be short term impacts to beneficial uses. Mixing zones are regions within public waters adjacent to point source discharges where pollutants are diluted and dispersed at concentrations that routinely exceed human health and aquatic life water quality standards (the maximum levels of pollutants that can be tolerated without endangering people, aquatic life, and wildlife.) The Regional Board has not discussed whether this constitutes a “mixing zone” and has not provided any information regarding the design, size or scope of a mixing zone. The Regional Board has failed to provide a mixing zone analysis.	

Summary Comment 4.4

The antidegradation analysis in Attachment G of the draft NPDES permit is inadequate.

The very purpose of “testing” aquatic pesticides in this project is to determine whether they should be used annually. This reasonably foreseeable consequence, alone, should eliminate the option of discharging pesticides to the Keys altogether. The proposed project is nothing like the examples of “short term” projects set forth by EPA Guidance. Similarly, the examples cited by the State Water Board APU 90-004 that would permit a “simple” antidegradation analysis do not apply here. The Regional Board has not provided even a “minimal antidegradation analysis” as directed by State Water Board Guidance.

The State (Lahontan) has clearly not conducted or presented a review that this “test” is one of those “few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that for “fishable/swimmable” water.”

The Regional Board cannot conclude that the methods prescribed in the proposed “test” provide best practicable treatment and control since the success of the “test” is still unknown. The Regional Board is premature in assessing best practicable treatment and control. BPTC evaluates the cost of achieving effluent reductions in relation to the effluent reduction benefits, also the age of equipment and facilities, the processes employed, engineering aspects of the control technologies, any required process changes, non- water quality environmental impacts (including energy requirements), and such other factors. NPDES permit requirements do not establish BPTC, it is the treatment facility capability.

The introduction of herbicides (even as a ‘one-time’ test) into Lake Tahoe, as a Tier 3 Outstanding National Resource Water should be a last resort and only after all possible non-chemical methods have been tested on a larger scale. The courts have applied

several factors in reviewing whether a lowering of high water quality is to the maximum benefit of the people of the state. These factors clearly require the applicant to first try non-chemical methods to eradicate the weed infestation in the Tahoe Keys.

The antidegradation analysis in the draft permit claims that the water quality degradation will be to the maximum benefit of the people, however, the draft permitting documents do not provide evidence for these claims. Everywhere in the country where aquatic herbicides are used to control aquatic weeds require repeated application, thereby rendering these waters permanently degraded, not improved upon. The evidence that water quality and beneficial use attainment will be improved has not been presented. This evidence cannot be presented because discharge of these pesticides violates two of the water quality objectives in Lahontan's Basin Plan, Toxicity and Chemical Constituents; Lahontan is not proposing exemptions for these water quality objectives

Summary Response 4.4

The antidegradation analysis in Attachment G of the draft NPDES permit is adequate. The antidegradation analysis is conducted for the action under consideration. The antidegradation analysis conducted in the NPDES permit does not preclude the need to conduct a separate environmental analysis for any future project, nor does it set a precedent. The repeated application of aquatic herbicides is not under consideration by the Lahontan Water Board.

APU 90-004 states that a "complete antidegradation analysis will not be required if . . . [a] Regional Board determines the reduction in water quality is temporally limited and will not result in any long-term deleterious effects on water quality. . ." The examples within APU 90-004 (e.g., will cease after a storm event is over) are not intended to be an exhaustive list of situations in which a simple antidegradation analysis would apply. While not required to, the Lahontan Water Board conducted an analysis more in depth and comprehensive than a simple analysis.

The Lahontan Water Board does not assume that water will be maintained and protected. Rather, the Lahontan Water Board conducted an analysis that shows that any water quality changes will be short term and temporary and that existing uses would be protected to conclude that waters will be maintained and protected. The Code of Federal Regulations, part 40, section 131.12(a)(3) was changed in 1983 to provide a limited exception to the absolute "no degradation" requirement. As indicated by EPA, "the no degradation provision was sometimes interpreted as prohibiting any activity (including temporary or short-term) from being conducted. States may allow some limited activities which result in temporary and short-term changes in water quality. Such activities are considered to be consistent with the intent and purpose of an ONRW. Therefore, EPA has rewritten the provision to read '. . . that water quality shall be maintained and protected,' and removed the phrase 'No degradation shall be allowed. . . .'" (Water Quality Standards Regulation, 48 FR 51400, 51403, November 8, 1983.)

In U.S. EPA's Water Quality Standards Handbook, U.S. EPA acknowledged that "[it is difficult to give an exact definition of "temporary" and "short-term" because of the variety

of activities that might be considered. However, in rather broad terms, EPA's view of temporary is weeks and months, not years. The intent of EPA's provision clearly is to limit water quality degradation to the shortest possible time. If a construction activity is involved, for example, temporary is defined as the length of time necessary to construct the facility and make it operational." U.S. EPA provides examples of temporary degradation that could occur in an ONRW that includes re-occurring or undefined periods of time, such as activities associated with timber harvesting or maintenance and repair of bridges. The CMT involves a one-time aquatic herbicide application. A long-term weeds management strategy that includes herbicides or a repeated aquatic herbicide application is not under consideration by the Lahontan Water Board. In Attachment G of the NPDES permit, the antidegradation analysis evaluates the changes in water quality, to determine that any water quality changes will be temporary and short-term beneficial uses will be protected, and the Project will not result in any permanent water quality degradation. To better clarify that the NPDES permit does not allow annual re-occurring discharges, section VIII.A.i of the NPDES permit has been changed from: "If the Discharger has ceased all discharges from the application of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay covered under this Order and does not expect to discharge during the remainder of this Permit term, the Discharger must notify the Lahontan Water Board in writing and request that the permit be rescinded."

To: "Once the Discharger has ceased all discharges from the application of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay covered under this Order, the Discharger must notify the Lahontan Water Board in writing and request that the permit be rescinded."

The Regional Board includes an analysis of how the waste discharge requirements will result in the best practicable treatment or control of the discharge. This analysis and determination is not premature. State Board Resolution 68-16 requires "[a]ny activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained." The Regional Water Board conducts the analysis specific to the discharge under consideration. In addition to following label requirements, the discharger is required to implement best management practices. The best management and controls required in the NPDES permit are more protective of water quality than typical controls placed on residual aquatic herbicides in California and would ensure that waters are maintained and protected.

Regarding the scope of the maximum benefit analysis in an ONRW, see response to comment 4.11. The antidegradation policy does not require that all possible non-chemical methods be tested prior to the application of aquatic herbicides.

The antidegradation analysis describes and evaluates how beneficial uses will be maintained and protected in Attachment G of the NPDES permit. Regarding why water quality objectives are not violated by the application of aquatic herbicides, see response to comment 7.1. The activity does not preclude the maintenance of a "fishable/swimmable" level of water quality protection.

For an explanation on why a mixing zone analysis is not required, please see response to comment 4.3

Regarding why Lahontan Water Board is not required to make the findings indicated in *40 CFR § 131.12 (a)(2)* for an ONRW, please see response to comment 4.9 and response to comment 4.11

Comment Table 4.4

Comment Number	Public Comment	Commenter
272.05	3. US EPA and Californian EPA both recognize Lake Tahoe as an “Outstanding National Resource Water, Tier 3.(ONRW). There are only two ONRWs within California. Our understanding of this designation drives the logic of only testing non-chemical methods on a larger scale, before approving an exemption to permit an herbicide discharge. TWSA views the introduction of herbicides (even as a ‘one-time’ test) into Lake Tahoe, as a Tier 3 Outstanding National Resource Water with 6 filtration exempt water systems (out of 60 nationally), as a last resort, and only after all possible non-chemical methods have been tested on a larger scale. Is herbicide application, even for testing, really the right approach in a Tier 3 ONRW of international significance? A realistic assumption is that a successful test indicates a future large-scale project, potentially with herbicides. We do understand Lahontan reserves the right to NOT permit future use.	Tahoe Water Suppliers Association
305.013	The antidegradation analysis in Attachment G of the draft NPDES permit is inadequate. State antidegradation policy in State Water Board Resolution No. 68-16, “Statement of Policy With Respect to Maintaining High Quality of Waters in California” states that: “Any activity…which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit to the people of the State will be maintained.” The courts have applied several factors in reviewing whether a	Tahoe Area Group of the Sierra Club

Comment Number	Public Comment	Commenter
	lowering of high water quality is to the maximum benefit of the people of the state. (See, Asociacion de Gente Unida por el Agua v. Cent. Valley Reg'l Water Quality Control Bd., 210 Cal. App. 4th 1255, 1279 (2012) (citing State Water Resources Control Board, Guidance Memorandum (Feb. 16, 1995) pp. 4-5). Factors to be considered include (1) past, present, and probable beneficial uses of the water (specified in water quality control plans); (2) economic and social costs, tangible and intangible, of the proposed discharge compared to the benefits, (3) environmental aspects of the proposed discharge; and (4) the implementation of feasible alternative treatment or control methods. These factors clearly require the applicant to first try non-chemical methods to eradicate the weed infestation in the Tahoe Keys. The draft anti degradation analysis fails to satisfy these factors to permit the discharge of aquatic pesticides in the Tahoe Keys. Most notably, and as discussed, above, the applicant has failed to demonstrate that non-chemical treatment methods are infeasible. Indeed, and instead, the applicant proposes to use both non-chemical and chemical methods. Non-chemical methods can, should, and must be implemented first, to avoid the degradation to water quality that will otherwise occur due to the proposed pesticide discharges into the lake. Any findings to the contrary run counter to the weight of evidence and should be set aside. (See, Code Civ. Procedure. § 1094.5, subd. (c); Water Code § 13330, subd. (e).)	
305.015	The draft order also violates federal anti-degradation requirements. Lake Tahoe is designated as an Outstanding National Resource Water (“ONRW”), which is provided the highest level of protection under the antidegradation policy. The policy provides for protection of water quality in high-quality waters that constitute an ONRW by prohibiting the lowering of water quality. (40 C.F.R. § 131.12(a)(3).) The exceptions provided by federal regulation and EPA guidance are nothing like the project being proposed here. For example, the draft order considers the proposed project to be “short-term,” which EPA guidance interprets to last weeks and months, not years. However, the very purpose of “testing” aquatic pesticides in this project is to determine whether they should be used annually. This reasonably foreseeable consequence, alone, should eliminate the option of discharging pesticides to the Keys altogether. Indeed, the proposed project is nothing like the examples of “short term” projects set forth by EPA Guidance, which generally include	Tahoe Area Group of the Sierra Club

Comment Number	Public Comment	Commenter
	things like minor and one-time replacements and repairs. Similarly, the examples cited by the State Water Board APU 90-004 that would permit a "simple" anti-degradation analysis do not apply here ("e.g., confined to the mixing zone," "e.g., will cease after a storm event is over," or "minor increase in the volume of discharge subject to secondary treatment.") Regardless, even if APU 90-004 did permit a simple anti-degradation analysis, which it does not, the project would still violate the prohibition on lowering water quality for an ONRW, and no state anti-degradation policy can be less stringent than required by federal law. (See, 40 C.F.R. § 131.4(a).) Simply put, "[t]he state must prevent water constituting an 'outstanding national resource' from being degraded." (American Paper Inst., Inc. v. United States EPA (7th Cir. 1989) 890 F.2d 869, 872.) 10	
305.08	Lake Tahoe is an Outstanding National Resource Water (ONRW). USEPA's Antidegradation Policy 40 CFR § 131.12 (a) clearly applies and states: "(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. (2) Where the quality of the waters exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. (i) The State may identify waters for the protections described in paragraph (a)(2) of this section on a parameter-by-parameter basis or on a water body-by-water body basis. Where the State identifies waters for antidegradation protection on a water body-by-water body basis, the State shall provide an opportunity for public involvement in any decisions about whether the protections described in paragraph (a)(2) of this section will be afforded to a water body, and the factors considered when making those decisions. Further, the State shall not exclude a water body	Tahoe Area Group of the Sierra Club

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	from the protections described in paragraph (a)(2) of this section solely because water quality does not exceed levels necessary to support all of the uses specified in section 101(a)(2) of the Act. (ii) Before allowing any lowering of high water quality, pursuant to paragraph (a)(2) of this section, the State shall find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located. The analysis of alternatives shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the State shall only find that a lowering is necessary if one such alternative is selected for implementation. (3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected." (Emphasis added) USEPA's Water Quality Handbook, Chapter 4, Antidegradation states on page 9: "In addition, water quality may not be lowered to less than the level necessary to fully protect the "fishable/swimmable" uses and other existing uses. This provision is intended to provide relief only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for "fishable/swimmable" water, and both cannot be achieved. The burden of demonstration on the individual proposing such activity will be very high. In any case, moreover, the existing use must be maintained and the activity shall not preclude the maintenance of a "fishable/swimmable" level of water quality protection. The antidegradation review requirements of this provision of the antidegradation policy are triggered by any action that would result in the lowering of water quality in a high-quality water. Such activities as new discharges or expansion of existing facilities would presumably lower water quality and would not be permissible unless the State conducts a review consistent with the previous paragraph. In addition, no permit may be issued, without an antidegradation review, to a discharger to high-quality waters with effluent limits greater than actual current loadings if such loadings will cause a lowering of water quality (USEPA, 1989c)." (Emphasis added) As described further below, the State (Lahontan) has clearly not conducted	

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	or presented a review that this "test" is one of those "few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that for "fishable/swimmable" water." In fact, as stated under the General Comments, the very purpose of "testing" aquatic pesticides in this project is to determine whether they should be used annually. This reasonably foreseeable consequence, alone, should eliminate the option of discharging pesticides to the Keys altogether. Indeed, the proposed project is nothing like the examples of "short-term" projects set forth by EPA Guidance, which generally include things like minor replacements and repairs. Similarly, the examples cited by the State Water Board APU 90-004 that would permit a "simple" antidegradation analysis do not apply here ("e.g., confined to the mixing zone," "e.g., will cease after a storm event is over," or "minor increase in the volume of discharge subject to secondary treatment.")	
305.082	State Board's Antidegradation Policy established in Resolution No. 68-16 clearly applies to this draft Order as well. The findings necessary to allow degradation under the Policy are stated in Asociacion de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Bd. (2012) 210 Cal.App.4th 1255, 1278-1279, citing (State Bd., Guidance Mem. (Feb. 16, 1995) p. 2.): "When the state's antidegradation policy is triggered, as here, Resolution No. 68- 16 provides that the Regional Board is authorized to allow the discharge of waste into high quality waters only if it makes specified findings. The State Board has described these findings as a two-step process. "The first step is if a discharge will degrade high quality water, the discharge may be allowed if any change in water quality (1) will be consistent with maximum benefit to the people of the State, (2) will not unreasonably affect present and anticipated beneficial use of such water, and (3) will not result in water quality less than that prescribed in state policies (e.g. water quality objectives in Water Quality Control Plans). The second step is that any activities that result in discharges to such high quality waters are required to use the best practicable treatment or control of the discharge necessary to avoid a pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State." (Emphasis added)	Tahoe Area Group of the Sierra Club
305.083	The State Board's guidance memorandum defines the term "maximum benefit to the people of the State" as follows:	Tahoe Area Group

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	"Before a discharge to high quality water may be allowed, it must be demonstrated that any change in water quality 'will be consistent with the maximum benefit to the people of the state.' This determination is made on a case-by-case basis and is based on considerations of reasonableness under the circumstances at the site. Even assuming that instream beneficial uses will be maintained and protected, it must be demonstrated, under the second part of the federal antidegradation policy, that any reduction in water quality is "necessary to accommodate important economic or social development." 40 C.F.R. §131.12(a)(2).' The antidegradation analysis in the draft permit claims that the water quality degradation will be to the maximum benefit of the people because the discharge of pesticides will (1) "improve water quality and beneficial use attainment through reduction of aquatic invasive and nuisance plants," (2) protect greater Lake Tahoe from the proliferation of invasive weed infestations from the Keys and that this "may save taxpayers from future costs associated with control of these species," (3) inform resource managers conducting similar projects at the Lake, and (4) protect the "Outstanding Features of the ONRW" that are threatened by the infestations, citing protection of a "$5 billion recreation-based economy" that will be preserved. However, the draft permitting documents do not provide evidence for these claims. Everywhere in the country where aquatic herbicides are used to control aquatic weeds require repeated application, thereby rendering these waters permanently degraded, not improved upon. The evidence that water quality and beneficial use attainment will be improved has not been presented. This evidence cannot be presented because discharge of these pesticides violates two of the water quality objectives in Lahontan's Basin Plan, Toxicity and Chemical Constituents; Lahontan is not proposing exemptions for these water quality objectives. The protection of greater Lake Tahoe from the proliferation of these weeds can more easily and efficiently be accomplished, saving taxpayers far more, by closing off the Keys with a barrier in the West Channel, an alternative that Lahontan and the Discharger refused to analyze when the Sierra Club and others proposed it during the scoping phase.	of the Sierra Club
305.086	Beneficial Uses and Water Quality Requirements (2) and (3) in the first step of the 2-step process cited in the State Board's Guidance Memo are also not satisfied. Lahontan has not provided evidence that "present and anticipated beneficial use" will not be unreasonably affected. In fact, they	Tahoe Area Group of the Sierra Club

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	basically admit that the possibility exists. Lahontan also fails to provide evidence that the project “will not result in water quality less than that prescribed in state policies (e.g. water quality objectives in Water Quality Control Plans).” In fact, as previously stated, the very act of discharging aquatic herbicides violates at least two water quality objectives (toxicity and chemical constituents) that Lahontan has not provided exemptions for. Furthermore, the draft permit allows essentially a “mixing zone” but does not fulfill any of the mixing zone policy requirements in the Basin Plan.	
346.1	The proposed Permit Antidegradation Analysis, Permit Attachment G, states that: “The Administrative Procedures Update titled Antidegradation Policy Implementation for NPDES Permitting (APU 90-004, July 2, 1990) provides guidance for Regional Boards implementing State Water Board Resolution No. 68-16 and the Federal Antidegradation Policy, as set forth in 40 CFR 131.12 as applied to the NPDES permitting process. Additional guidance on the federal antidegradation policy is contained in the USEPA Water Quality Standards Handbook (EPA- 823-B-12-002, 2012) and other documents prepared by USEPA Region 9. Outstanding National Resource Waters (ONRWs) are provided the highest level of protection under the antidegradation policy. The water quality of ONRWs must be “maintained and protected.” U.S EPA in Section 4.7 of the USEPA Water Quality Standards Handbook notes that the state can allow activities that result in temporary and short-term changes in the water quality of an ONRW (i.e., Tier III waters) provided those changes do not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW. The term “temporary and short-term” is undefined and is dependent on the activity involved. However, the USEPA Water Quality Standards Handbook notes that in rather broad terms, “EPA’s view of temporary is weeks and months, not years. The intent of EPA's provision clearly is to limit water quality degradation to the shortest possible time.” (Underline emphasis added) The Antidegradation “analysis” is wholly based on “short term changes”. However, as quoted from the proposed Permit; “EPA’s view of temporary is weeks and months, not years.” The proposed Permit page G17 states that: “Protect greater Lake Tahoe from the proliferation of aquatic invasive weed infestations originating from the Tahoe Keys Lagoons by evaluating the effectiveness of chemical and non-chemical control	Richard McHenry

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	methodologies for three target aquatic weeds: Eurasian watermilfoil (Myriophyllum spicatum), curlyleaf pondweed (Potamogeton crispus), and coontail (Ceratophyllum demersum) in the Tahoe Keys Main Lagoon and Lake Tallac. This may save taxpayers from future costs associated with the control of these species." The proposed Permit states on page G5 that: “A complete antidegradation analysis is not required when a lowering of water quality is temporally limited and will not result in any long- term deleterious effects on water.” Based on their Finding, the Antidegradation Analysis is significantly lacking in virtually every aspect. The principal analysis of the Antidegradation attachment is that: the use of aquatic herbicides is short term and therefore exempt.	
346.12	Section VII of Attachment G, Maximum Benefit to the People of the State, states that: “… by evaluating the effectiveness of chemical and non-chemical control methodologies for three target aquatic weeds…, This may save taxpayers from future costs associated with the control of these species, Inform private, state, and federal aquatic resource managers conducting similar aquatic invasive species control projects on Lake Tahoe, Any short-term and temporary water quality changes resulting from the application of aquatic herbicides will be to the maximum benefit of the people of state in preserving the features of Lake Tahoe that make it outstanding.” The Regional Board’s apparent intent is not only to make aquatic herbicides a permanent on-going long-term use not only at the current location, but throughout Lake Tahoe. The Regional Board’s agenda is specified in their cited conclusions to promote the long-term ongoing use of aquatic herbicides. The Regional Board does not explain or justify the lack of analysis for Antidegradation compliance or an allowance under:” temporary short-term changes in water quality” if aquatic herbicides are shown to be effective and they are intended for a significantly expanded annual ongoing use. The Antidegradation analysis does not contain any analysis of the effects of herbicides on macroinvertebrates, macrophyte, fish populations or native plants. There is no actual economic analysis other than cursory unsupported conclusions in the Antidegradation analysis. The Antidegradation analysis is cursory and unsupported by factual analysis. The conclusion that: “Any short-term and temporary water quality changes resulting from the application of aquatic herbicides will be to the maximum benefit of the people of state in preserving the	Richard McHenry

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	features of Lake Tahoe that make it outstanding." shows that the Regional Board has already reached their conclusion regarding the use of aquatic herbicides prior to even starting the proposed "study". The Regional Board's proposed Permit and Antidegradation analysis makes a mockery of the State and Federal regulations.	
346.14	The State Board's APU 90-004 specifies guidance to the Regional Boards for implementing the state and federal antidegradation policies and guidance. The guidance establishes a two- tiered process for addressing these policies and sets forth two levels of analysis: a simple analysis and a complete analysis. A simple analysis may be employed where a Regional Board determines that: 1) a reduction in water quality will be spatially localized or limited with respect to the waterbody, e.g. confined to the mixing zone; 2) a reduction in water quality is temporally limited; 3) a proposed action will produce minor effects which will not result in a significant reduction of water quality; and 4) a proposed activity has been approved in a General Plan and has been adequately subjected to the environmental and economic analysis required in an EIR. Even a minimal antidegradation analysis would require an examination of: 1) existing applicable water quality standards; 2) ambient conditions in receiving waters compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability; 5) best practicable treatment and control (BPTC); 6) comparison of the proposed increased loadings relative to other sources; 7) an assessment of the significance of changes in ambient water quality and 8) whether the waterbody was a ONRW. A minimal antidegradation analysis must also analyze whether: 1) such degradation is consistent with the maximum benefit to the people of the state; 2) the activity is necessary to accommodate important economic or social development in the area; 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved; and 4) resulting water quality is adequate to protect and maintain existing beneficial uses. The Regional Board concludes (page G4) that: …" Therefore, in showing that a discharge will lead to only "temporary and short-term" changes to water quality in an ONRW, and thus that the water quality of an ONRW will be "maintained and protected", the Lahontan Water Board is not required to make findings consistent with 40 C.F.R section 131.12(a)(2) and State Water Board Resolution 68-16 to	Richard McHenry

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	allow a lowering of water quality. However, while not required under the Antidegradation Policies, for purposes of informing the public, the analysis below does contain information on how the "temporary and short-term" changes are necessary to accommodate economic or social development in the area. The analysis also includes a description on how waste discharge requirements result in the best practicable treatment or control of the discharge." (Underline emphasis added) The Regional Board ignores the above cited guidance that: "A simple analysis may be employed where a Regional Board determines that: 1) a reduction in water quality will be spatially localized or limited with respect to the waterbody, e.g. confined to the mixing zone; 2) a reduction in water quality is temporally limited; 3) a proposed action will produce minor effects which will not result in a significant reduction of water quality…" The Regional Board has not provided even a "minimal antidegradation analysis" as directed by State Water Board Guidance.	
346.16	The Regional Board concludes in their Antidegradation Analysis that: "These measures constitute best practicable treatment and control and are incorporated as requirements of this Order. Therefore, these waste discharge requirements will result in best practicable treatment or control of the discharge to assure that (a) pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit of the people of the State will be maintained as further described below." The Regional Board fails to recognize in their Finding that this is a "test". The Regional Board cannot conclude that the methods prescribed in the proposed "test" provide BPTC since the success of the "test" is still unknown. The Regional Board is premature in assessing best practicable treatment and control. BPTC evaluates the cost of achieving effluent reductions in relation to the effluent reduction benefits, also the age of equipment and facilities, the processes employed, engineering aspects of the control technologies, any required process changes, non- water quality environmental impacts (including energy requirements), and such other factors. NPDES permit requirements do not establish BPTC, it is the treatment facility capability. The Antidegradation Analysis is inaccurate and incomplete. The Antidegradation Analysis concludes that: "The following three benefits indicate that the short-term and temporary change in water quality resulting from the permitted discharge will be to the maximum benefit to the people of the state: "Protection of the Outstanding	Richard McHenry

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	Features of the ONRW. Aquatic invasive weed infestations threaten Lake Tahoe's ecosystem, water quality, iconic clarity, and $5 billion recreation-based economy. Lake Tahoe's exceptional recreational value depends on the enjoyment of the scenic beauty imparted by its clear, blue waters. Any short-term and temporary water quality changes resulting from the application of aquatic herbicides will be to the maximum benefit of the people of state in preserving the features of Lake Tahoe that make it outstanding."" Again, The Regional Board fails to recognize in their Finding that this is a "test". The Regional Board cannot conclude that the methods prescribed in the proposed "test" provide a saving methodology to permanently eliminate invasive aquatic weeds. It is also important to note that the "test" is limited to Tahoe Keys, a relatively small part of Lake Tahoe. The conclusion that a relatively small test in a small area of Lake Tahoe is worthy of saving a 5- billion-dollar economy. Again, the Regional Board fails to recognize that they do not yet have the results of the "test" and cannot therefore conclude that the test has saved Lake Tahoe. There is no presented analysis of a yet to be started "test" that its result is a maximum benefit of the people of state. The Antidegradation Analysis is incomplete.	
365.07	You are all the last stop to this illogical proposal. Please deny the testing of aquatic herbicides in our tier 3 lake, an outstanding national water resource as defined by the EPA. Your approval would set a precedent all over the world for contaminating our most precious resource... clean water	Elise Fett
346.11	The Regional Board fails to cite that the proposed Permit life is 5 years (an expiration date is absent), not weeks or months. Clearly, it is the intent to make the use of aquatic herbicides an ongoing annual use by this and other dischargers pending the outcome of the "effectiveness investigation". This continued annual long-term use is not a "short term temporary use". The proposed Permit does contain a provision stating: "If the Discharger has ceased all discharges from the application of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay covered under this Order and does not expect to discharge during the remainder of this Permit term, the Discharger must notify the Lahontan Water Board in writing and request that the permit be rescinded." This, "and does not expect to discharge during the remainder of this Permit" appears to allow flexibility for the Discharger to continue discharging	Richard McHenry

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	beyond what is identified as a test. This does not mandate a "short term temporary" discharge.	

Summary Comment 4.5

Per anti-degradation guidance (40 CFR § 131.12 (2),) the Non-Point Source Plan should be augmented with ongoing stormwater and fertilizer management improvements to reduce land-based, non-point source loading. It is clearly stated in anti-degradation policy that all cost-effective and reasonable BMP's must be in place before the State authorizes degradation of high quality waters.

Summary Response 4.5

As described in Appendix F and illustrated on Figures 3.3.4-16 and 3.3.4-19 of the EIR/EIS, total phosphorus (TP) and total nitrogen (TN) loading from stormwater and landscape irrigation were estimated to be small (<13% of TP and 7% of TN) components of overall nutrient loading in the Main Lagoon. As such, even complete elimination of these nutrient loading sources (e.g., removing grass) would not be expected to control aquatic weeds or algal blooms in the lagoon. The TKPOA implements a nonpoint source water quality management plan to reduce pollutant loading from land-based sources to comply with their Waste Discharge Requirements.

The Lahontan Water Board is not required to make the findings indicated in *40 CFR § 131.12 (a)(2)* for an ONRW. Water quality in waters designated as ONRWs must be "maintained and protected." In contrast, the findings in *40 CFR § 131.12 (a)(2)* are triggered when allowing a change in water quality that would result in a high quality water not being maintained and protected (i.e., long term or permanent degradation). A more stringent level of protection is applied to ONRW waters. The antidegradation analysis for an ONRW focuses on whether the discharge will lead to only "temporary and short-term" changes to water quality in an ONRW and whether beneficial uses will be protected. Long term or permanent degradation is not permissible in an ONRW and therefore the findings in 40 C.F.R section 131.12(a)(2) to justify that degradation are not applicable.

In any case, the antidegradation policy in 40 C.F.R section 131.12(a)(2) does not require that all non-point source controls be revised, improved, or implemented prior to allowing a point source discharge. The Water Board considers whether the NPDES permit for the discharge of residual pesticides will result in the best practicable treatment or control of the discharge. To implement the antidegradation policy, the Regional Boards must consider the proposed discharge and permit under their consideration. Here, the proposed discharge is a point source discharge of residual aquatic herbicides. An antidegradation analysis is conducted parameter by parameter. The federal antidegradation policy does not indicate that all non-point source controls must be in place for nitrates before the State authorizes a point source discharge of a different pollutant.

Comment Table 4.5

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272.13	11.Per anti-degradation guidance (40 CFR § 131.12 (2),) the Non-Point Source Plan should be augmented with ongoing stormwater and fertilizer management improvements to reduce land-based, non-point source loading. Such enhancements could include: requiring buffer strips with a designated 'turf setback' requirement zone (removing turf from edge of water landscaping), nitrogen fertilizer restrictions, and the addition of storm drain inlet filters. Stormwater was identified as a secondary major contributor to water column nutrient loading in the DEIR. The Keys water conditions are a result of ongoing, unmitigated conditions from land-based activities. It is clearly stated in anti-degradation policy that all cost-effective and reasonable BMP's must be in place before the State authorizes degradation of high quality waters.	Tahoe Water Suppliers Association

Summary Comment 4.6

The proposed monitoring regime is wholly inadequate, and therefore cannot be the basis for any anti-degradation determination.

Summary Response 4.6

The proposed monitoring regime is a comprehensive program and the antidegradation analysis is adequate.

The Court in *Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control* Board (2012) 210 Cal.App.4th 1255 (AGUA) interpreted State Water Resources Control Board (State Water Board) Resolution 68-16. The case involved a challenge to the Central Valley Regional Water Quality Control Board's (Central Valley Water Board) general waste discharge requirements order for existing milk cow dairies (Central Valley Order). Unlike the NPDES permit which includes a thorough antidegradation analysis, the Central Valley Order did not include an antidegradation analysis and instead simply declared that no degradation is allowed by the Central Valley Order. The court indicated that when an antidegradation analysis is not included in an order, the monitoring program must be sufficient to alert the Central Valley Water Board to whether the discharger is degrading groundwater. The court indicated that the monitoring program in the Central Valley Order was inadequate to support the Central Valley Water Board's determination because (1) the monitoring well were not located in areas to detect degradation, (2) the monitoring would not show pollution until several years after its release, and (3) the monitoring did not test for all constituents of concern. The court did not establish any general rule about how regulated facilities must monitor water quality as part of compliance with Resolution 68-16, and instead considered whether Central Valley's Order could comply with the antidegradation policy by prohibiting degradation when the ground water monitoring wells were the only effective

way to detect or prevent degradation. Furthermore, the decision does not require regulated facilities to conduct water quality monitoring in addition to or instead of other monitoring, such as visual observation or management practice tracking monitoring.

In contrast to the Central Valley Order, the NPDES permit includes an antidegradation analysis that evaluates whether the discharge will cause short term and temporary changes to water quality. The Regional Board does not rely on a prohibition requirement to conclude that no analysis is needed. Nonetheless, a comprehensive monitoring program is included in the NPDES permit. The NPDES permit requires four different types of monitoring: background monitoring, event monitoring, post-event monitoring, and contingency monitoring. The NPDES permit requires minimum number and location of samples, and requires the monitoring to conducted at locations that characterize water quality within the treatment areas and receiving waters. The monitoring includes the constituents of concern, including the herbicide and degradants. This is consistent with the monitoring the court determined to be adequate.

For further response on why the monitoring is comprehensive and will detect water quality changes, see response to comments Summary Response 8.1 regarding the MRP and Summary Response 8.8 regarding the MMRP.

Comment Table 4.6

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305.014	Further, like the invalidated order in Asociacion de Gente Unida por el Aqua, the proposed order and anti-degradation analysis rely heavily on the permit monitoring requirements to reduce and avoid adverse effects to water quality; but as discussed further, below, the proposed monitoring regime is wholly inadequate, and therefore cannot be the basis for any anti-degradation determination. (Associacion at 1280 [“the mechanism for ensuring that groundwater will not be further degraded is the monitoring plan, which, as explained above, is inadequate”].)	Tahoe Area Group of the Sierra Club
305.087	Best Practicable Treatment or Control The second step is that any activities that result in discharges to such high quality waters are required to use the best practicable treatment or control of the discharge necessary to avoid a pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State. As stated throughout these comments, the monitoring required in the draft permit is entirely inadequate to claim an avoidance of pollution or nuisance and to maintain the highest water quality.	Tahoe Area Group of the Sierra Club
305.09	Furthermore, the monitoring in the NPDES permit is so deficient that it cannot be used to determine whether or not the requirement in Resolution 68-16 that beneficial uses will be protected is satisfied. Because the draft permit does not	Tahoe Area Group of the Sierra Club

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	include adequate monitoring, as stated throughout this comment letter, Lahontan will not be able to accurately detect degradation in water quality resulting from the discharge and will be unable to make any substantiated finding that allowing the degradation is consistent with maximum benefit to the people of the State.	

Summary Comment 4.7

The Regional Board has concluded in that any impacts to beneficial uses are short term without any verification or documentation in the Antidegradation Analysis. Lahontan doesn't really know what the long-term impacts are, which is clear by their question posed to the Tahoe Science Advisory Council: "Will implementing the proposed monitoring plan provide sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application?" The Regional Board's question indicates that there will be degradation of macroinvertebrates, macrophyte, and fish populations and therefore the aquatic life beneficial use. This degradation has not been sufficiently addressed or quantified.

Summary Response 4.7

Biological monitoring is one component of the comprehensive monitoring required of the discharger. It is not an indication that the Water Board's findings are unsupported. The antidegradation analysis does not assume short term and temporary impacts, but instead includes an evaluation of the application rate, laboratory studies and field dissipation studies to determine the duration of the change to water quality, and an evaluation of the application rate, location, and toxicity of the discharge to determine impacts to beneficial uses. The antidegradation analysis supports a finding that the discharger will only create short term and temporary impacts, and waters will be maintained and protected.

The question asked in the peer review is consistent with the Basin Plan, and is not a unique consideration of the CMT, or an indication that the long-term degradation will occur from the project. The Lahontan Basin Plan requires peer review of the biological monitoring program by independent experts and that the definition of 'fully restored' "be provided to the peer reviewers prior to peer review of the monitoring and reporting program, with instructions to determine whether the monitoring design is capable of determining whether full restoration has been achieved." (Basin Plan, 4.1 – 10). This is required prior to granting any exemption to the prohibition on discharge of pesticides to surface or ground waters for projects that are neither emergencies or time sensitive. In asking the question, the peer reviewers were provided with the instructions indicated in the Basin Plan.

Comment Table 4.7

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305.081	The clear intent of the short-term nature of the exceptions allowed under the federal antidegradation regulations are upended by this supposed “test” because Lahontan provides no evidence to support the short-term nature of the impacts. On the one hand, Lahontan appears to believe that water quality will not be degraded by the use of herbicides given Lahontan’s claims of not needing to perform a full antidegradation analysis due to the short-term nature (“weeks to months, not years”) of the impacts. However, in reality, Lahontan doesn’t really know what the long-term impacts are, which is clear by their question posed to the Tahoe Science Advisory Council: “Will implementing the proposed monitoring plan provide sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application?” The primary method to determine adequacy (not whether the species will recover, but whether the monitoring will indicate recovery) is based on long-term annual monitoring, on the order of years, not months; e.g., annual benthic macroinvertebrate and macrophyte evaluations are proposed for 3 years, and beyond (5 years if indices do not show recovery) based on the Discharger’s Revised Monitoring and Reporting Plan, June 14, 2021. Therefore, Lahontan appears to acknowledge that long-term impacts are indeed possible. Yet, the antidegradation “analysis” provided in the draft permit entirely assumes only short-term impacts without providing any evidence to support this claim (chemical half-lives do not prove long-term impacts will not occur).	Tahoe Area Group of the Sierra Club
346.03	The Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency engaged the Tahoe Science Advisory Council to lead an external peer review of documents associated with the Tahoe Keys Lagoons Aquatic Weed Control Methods Test project. The “Peer Review” was asked to answer a single question: “Will implementing the proposed monitoring plan provide sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application?” The Peer Review found: “the proposed monitoring plan will provide ample evidence to assess whether non-target communities have fully restored/recovered after the aquatic	Richard McHenry

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	weed treatments." The Regional Board's question for Peer Review acknowledges that they have no evidence that water quality is adequate to protect existing uses fully or that water quality will be maintained and protected. The Regional Board cannot claim to have complied with the requirements of 40 CFR Section 131.12, the Antidegradation Policy, since the posed question assumes that aquatic life will indeed be degraded and they will monitor to see if it recovers.	
346.08	Federal Regulations 40 CFR, Sec.131.12 the Antidegradation policy, requires that: (a) The State shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy pursuant to this subpart. The antidegradation policy and implementation methods shall, at a minimum, be consistent with the following: (1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. (2) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. (3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. The State's Antidegradation Policy states that: "The Antidegradation Policy (Resolution 68-16) requires that: Existing high-quality water will be maintained until it has been demonstrated that any change will be with the maximum benefit to the people of the State. The change will not unreasonably affect present and anticipated beneficial uses. The change will not result in water quality less than prescribed in the policies. Any activity which produces a waste or increased volume or concentration will be required to meet waste discharge	Richard McHenry

Comment Number	Public Comment	Commenter
	requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality with maximum benefit to the people of the state will be maintained." Again, the Regional Board in posing the question for Peer Review acknowledges that they have no evidence that water quality is adequate to protect existing uses fully or that water quality will be maintained and protected. The Regional Board has not shown that the proposed project provides a maximum benefit to the people of the State. The Regional Board has not shown that the change will not unreasonably affect present and anticipated beneficial uses. The Regional Board has not shown that the change will not result in water quality less than prescribed in the policies. The Regional Board has not shown that the project provides best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur." The question posed by the Regional Board and answered by the Peer Review seems to indicate that macroinvertebrates, macrophyte, and fish populations will be degraded by the application of aquatic pesticides. The question is; "will they recover?" The Peer Review does not indicate that they will recover, simply that that monitoring is sufficient to tell if they will "fully" recover. The question posed by the Regional Board acknowledges that macroinvertebrates, macrophyte, and fish populations will be degraded and they have no knowledge whether the aquatic life will recover or to what degree. The Regional Board's proposed Permit does not comply with the Antidegradation Policy.	
346.13	As is cited above, the Regional Board provided a "Peer Review" asking a single question: "Will implementing the proposed monitoring plan provide sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application?" The Peer Review found: "the proposed monitoring plan will provide ample evidence to assess whether non-target communities have fully restored/recovered after the aquatic weed treatments." The Regional Board has concluded in that any impacts to beneficial uses are short term without any verification or documentation in the Antidegradation Analysis. It is the purpose of an Antidegradation Analysis to provide sufficient information to show that existing high-quality water will be	Richard McHenry

Comment Number	Public Comment	Commenter
	maintained, that any change will be with the maximum benefit to the people of the State, the change will not unreasonably affect present and anticipated beneficial uses, the change will not result in water quality less than prescribed in the policies, and best practicable treatment or control of the discharge will be provided. The Regional Board is required to provide this information in the Antidegradation analysis, not provide it as a follow-up. The Regional Board asks: ""Will implementing the proposed monitoring plan provide sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application?" The Regional Board's question indicates that there will be degradation of macroinvertebrates, macrophyte, and fish populations and therefore the aquatic life beneficial use. This degradation has not been sufficiently addressed or quantified.	

Summary Comment 4.8

In May 1990 the California State Water Resources Control Board (SWRCB) issued guidance for the implementation of the antidegradation policy in California, it states the following regarding ONRWs: "…no discharge which will lower existing water quality shall be allowed." This statement appears to be supported by the 1990 APU 90-004 document. We request that the Lahontan Regional Board clarify whether the approval of the test of herbicides is consistent with this specific language in the SWRCB's APU 90-004.

Summary Response 4.8

Prior to 1983, the Code of Federal Regulations indicated the "no degradation shall be allowed. . ." in ONRW waters. The Code of Federal Regulations, part 40, section 131.12(a)(3) was changed in 1983 to provide a limited exception to the absolute "no degradation" requirement. As indicated by EPA, "the no degradation provision was sometimes interpreted as prohibiting any activity (including temporary or short-term) from being conducted. States may allow some limited activities which result in temporary and short term changes in water quality. Such activities are considered to be consistent with the intent and purpose of an ONRW. Therefore, EPA has rewritten the provision to read '. . . that water quality shall be maintained and protected,' and removed the phrase 'No degradation shall be allowed. . . .'" (Water Quality Standards Regulation, 48 FR 51400, 51403, November 8, 1983.) Approval of the Order would be consistent with APU 90-004 and the Antidegradation Policies if the Board finds that only temporary and short term changes would result from the activity.

US EPA Guidance on Implementing the Antidegradation Provisions of 40. CFR 131.12 (1987) is included as Appendix I-5 of the Antidegradation Policy Implementation for NPDES Permitting, APU 90-004. This appendix does include the statement that " 40 CFR 131.12(a) (3) prohibits any action which would lower water quality in waters designated as Outstanding National Resource Waters (ONRNs)." This should be interpreted as prohibiting any long term and permanent changes to the ONRW.

Comment Table 4.8

Comment Number	Public Comment	Commenter
312.03	As stated by numerous interested parties, there are significant concerns with the fact of using herbicides within Lake Tahoe water, one of only two Outstanding Natural Resource Waters (ONRW) in California. 1. In May 1990 the California State Water Resources Control Board (SWRCB) issued guidance1 for the implementation of the anti-degradation policy in California, it states the following regarding ONRWs: "…no discharge which will lower existing water quality shall be allowed." This statement appears to be supported by the decision flow chart for discharges that accompanied the 1990 APU 90-004 document. That flow chart indicates that if a water body is an ONRW, then the "Action [is] prohibited." We request that the Lahontan Regional Board clarify whether the approval of the test of herbicides is consistent with this specific language in the SWRCB's APU 90-004	Dan Askenaize

Summary Comment 4.9

An antidegradation analysis consists of two basic steps. First, the applicant must demonstrate that the discharge is necessary to accommodate important social or economic development. Second, the applicant must demonstrate that no reasonable alternatives exist that would provide the needed result without authorizing a new discharge into a surface water. The proposal to use (test) herbicides in Lake Tahoe fails to meet these steps. The Water Board's Antidegradation Analysis fails to address the Clean Water Act's requirement that there be no feasible alternatives available to address the issue, when in fact there are other methods to address the weed infestation. Lahontan has also not provided an economic analysis considering the costs of other means to protect Lake Tahoe from invasive weeds. Clearly the most cost-efficient and environmentally beneficial method of protecting greater Lake Tahoe waters from the invasive weeds spread from the Keys would be to block off the lagoon's West Channel from the Lake. The request to analyze this alternative was ignored and it was not analyzed in the DEIR/DEIS. Lahontan's draft permit and supporting documents lack the evidence necessary to support the proposed degradation of an ONRW, where "water quality shall be maintained and protected.

Summary Response 4.9

The Lahontan Water Board is not required to make the findings indicated in *40 CFR § 131.12 (a)(2)* for an ONRW. Water quality in waters designated as ONRWs must be "maintained and protected." In contrast, the findings in 40 CFR § 131.12 (a)(2*)* are triggered when allowing a change in water quality that would result in a high quality water not being maintained and protected (i.e., long term or permanent degradation). A more stringent level of protection is applied to ONRW waters. The antidegradation analysis for an ONRW focuses on whether the discharge will lead to only "temporary and short-term" changes to water quality in an ONRW and whether beneficial uses will be protected. Long term or permanent degradation is not permissible in an ONRW and therefore the findings in 40 C.F.R section 131.12(a)(2) to justify that degradation are not applicable.

The antidegradation analysis conducted by the Lahontan Water Board demonstrates that the permitted discharge will lead to only "temporary and short-term" changes to water quality in an ONRW. It also includes an analysis on how beneficial uses will be protected. Thus, the water quality of an ONRW will be "maintained and protected." The findings mentioned by the commenters (e.g., findings on how not maintaining and protecting a high quality water is necessary to accommodate important economic or social development) and analysis of alternatives is not applicable to this antidegradation analysis.

Furthermore, the commenter mischaracterizes 40 C.F.R section 131.12(a)(2). The 'analysis of alternatives" to the discharge is not an "alternatives analysis." In promulgating the federal antidegradation policy, EPA made clear that the "analysis required in § 131.12(a)(2)(ii) is distinct from the "alternatives analysis" required in other programs, such as the National Environmental Policy Act and CWA section 404 permitting." (Water Quality Standards Regulatory Revisions, 80 FR at 51032, August 21, 2015.).

In addition, the Lahontan Water Board is not required to conduct an economic analysis considering the costs of suggested long-term management techniques for the control of aquatic invasive weeds. Furthermore, the antidegradation policies does not require a cost comparison between the discharge and alternatives to the discharge. See response to comment 4.11.

Comment Table 4.9

Comment Number	Public Comment	Commenter
312.05	3. An antidegradation analysis consists of two basic steps. First, the applicant must demonstrate that the discharge is necessary to accommodate important social or economic development. Second, the applicant must demonstrate that no reasonable alternatives exist that would provide the needed result without authorizing a new discharge into a surface water. The proposal to use (test) herbicides in Lake Tahoe fails to meet these steps. Our understanding	Dan Askenaize

	is that non-chemical methods (notably Laminar Flow Aeration (LFA) at the Ski Run Marina) have proved quite successful at reducing invasive species. Our understanding is that LFA, is being currently being tested on a limited basis in the lagoons of Tahoe Keys. Why not expand the acreage of lagoons treated with LFA now?	
321.02	We also are concerned that the Water Board's Antidegradation Analysis fails to address the Clean Water Act's requirement that there be no feasible alternatives available to address the issue, when in fact there are other methods to address the weed infestation (as evinced by Alternative 1). We herein support and incorporate by reference comments submitted by the Sierra Club, Tahoe Area Group, on the subject project.	Judith Tornese
305.072	Page F-14, under Antidegradation Policy, states: "The permitted discharge must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16." Resolution No. 68-16 states: "the baseline water quality shall be maintained unless poorer water quality is necessary to accommodate important economic or social development and is considered to be of maximum benefit to the people of the State." This project benefits only the property owners of TKPOA by facilitating boating from their backyard docks into Lake Tahoe. There are other less toxic, more expedient and less costly ways to prevent weeds from leaving the Keys and spreading throughout the lake, such as a barrier across the west channel, but TKPOA and the agencies have refused to consider this or even examine this as an alternative in the DEIR/DEIS. This permit does not satisfy antidegradation provisions of State Water Board Resolution No. 68- 16 and, therefore, should not be approved. See the comments on the antidegradation analysis below.	Tahoe Area Group of the Sierra Club
305.089	Lahontan has also not provided an economic analysis considering the costs of other means to protect Lake Tahoe from the Keys' unnatural waterways which will continue to provide ideal growing conditions for invasive weeds which boating from the Keys is spreading around Lake Tahoe. Clearly the most cost-efficient and environmentally beneficial method of protecting greater Lake Tahoe waters from the invasive weeds spread from the Keys would be to block off the lagoon's West Channel from the Lake, which the Sierra Club and others proposed during the scoping phase of the project. The request to analyze this alternative was ignored and it was not analyzed in the DEIR/DEIS. Lahontan's draft permit and	Tahoe Area Group of the Sierra Club

	supporting documents lack the evidence necessary to support the proposed degradation of an ONRW, where "water quality shall be maintained and protected."	

Summary Comment 4.10

The provided antidegradation analysis is bias toward the aesthetic characteristics of Lake Tahoe. The focus should be on the pristine water quality that provides surface water filtration exempt water quality.

Summary Response 4.10

The Antidegradation Analysis does not include discussion of an 'aesthetic' standard. Rather it discusses how Lake Tahoe was designated as an Outstanding National Resource Water (ONRW), both for its recreational and its ecological value. Lake Tahoe's exceptional recreational value depends on the its clear, blue waters. Lake Tahoe's exceptional ecological value depends on maintaining low rates of algal growth. The proliferation of aquatic invasive weeds to Lake Tahoe impacts the features that make Lake Tahoe outstanding. The maximum benefit analysis discusses how any short-term and temporary water quality changes resulting from the application of aquatic herbicides will be to the maximum benefit of the people of the state in preserving the features of Lake Tahoe that make it outstanding. In this case, by reducing aquatic invasive weeds and collecting information that can be used to develop a long-term aquatic weeds management strategy in the Tahoe Keys Lagoons, thus reducing the spread of aquatic invasive weeds in Lake Tahoe and preserving the clarity and low algal growth rates. The discharge does not alter the essential character or special use that makes the water an ONRW, and would actually protect those characteristics.

The antidegradation analysis does not identify a primary beneficial use for protection. Instead it discusses how existing beneficial uses will be maintained and protected, including aquatic life beneficial uses and the Municipal (MUN) beneficial use. Please see Summary Response 13.2-13.7 for further discussion on why impacts to drinking water are not expected.

Comment Table 4.10

Comment Number	Public Comment	Commenter
272.08	6.The Antidegradation Analysis (AA) (offered in Attachment G / Order / Section VII. Maximum Benefit to the People of the State) has statements in the findings which need further clarification. Specifically, Item 4 (in an interesting interpretation) SUPPORTS THE USE OF HERBICIDE for an ability to protect Tahoe's 'outstanding aesthetic' standard. This statement sets precedent that herbicides are an acceptable option at small scale in an ONRW Tier 3; in the scope of tools for environmental	Tahoe Water Suppliers Association

	restoration. The AA supports a presumption that the primary beneficial uses of Lake Tahoe ONRW 3 status is for clear, blue waters. The focus should be on the pristine water quality that provides surface water filtration exempt water quality for our customers, exempt or otherwise. The AA prioritizes the project goal for clarity standard rather than overall water quality.	
349.01	I do not support the proposed control methods test at the Tahoe Keys Lagoons. The provided antidegradation analysis is bias toward the esthetic characteristics of Lake Tahoe, and the use of aquatic pesticides is not for the maximum benefit of the people of the State, California, and Nevada.	Robert Vidra

Summary Comment 4.11

Even if evidence is presented regarding the percentage of support to the greater Lake Tahoe economy from the Keys' private boating community, demonstration that this discharge is to the maximum benefit to the people cannot be made because these private homeowners (85% of whom are second homeowners) are not the majority of people at the Lake, and certainly not the majority of people who visit the Lake from the entire country and from around the world. The group of people that will have the maximum benefit from this project are the private homeowners at the Keys. Lahontan's (and TRPA's) long-term strategy appears quite clear from statements in Attachment G. Lahontan clearly intends to make aquatic herbicide use not just at the Keys, but throughout Lake Tahoe.

The draft permit does not provide any economic impact analysis or provide any evidence of the economic or social costs of the proposed discharge compared to the benefits. Lahontan clearly has not considered "whether a lower water quality can be abated through reasonable means" because it has not fully evaluated non-chemical methods and found them to be ineffective and infeasible, as required by the Basin Plan. Even if maintaining navigation from private boat docks in the Keys lagoons by using herbicides were important to social and economic development, any cost savings from herbicide use would not be necessary to accommodate it.

Summary Response 4.11

The Lahontan Water Board is not required to make the findings indicated in *40 CFR § 131.12 (a)(2)* for an ONRW. Water quality in waters designated as ONRWs must be "maintained and protected." In contrast, the findings in *40 CFR § 131.12 (a)(2)* are triggered when allowing a change in water quality that would result in a high quality water not being maintained and protected (i.e., long term or permanent degradation). Likewise, findings required by State Board Resolution 68-16 to justify not maintaining high quality waters are not applicable to an ONRW.

The antidegradation analysis conducted by the Lahontan Water Board demonstrates that the permitted discharge will lead to only “temporary and short-term” changes to water quality in an ONRW. It also includes an analysis on how beneficial uses will be protected. The findings mentioned by the commenters (e.g., findings on how not maintaining and protecting a high-quality water is necessary to accommodate important economic or social development; findings on how not maintaining high quality water is to the maximum benefit of the people) are not applicable to this antidegradation analysis.

The Lahontan Water Board does however conduct an analysis on how the waste discharge requirements will result in best practicable treatment control of the discharge necessary to assure that the highest water quality consistent with the maximum benefit to the people of the State will be maintained. For an ONRW, the highest water quality consistent with the maximum benefit to the people will always be a level that maintains and protects the ONRW. The maximum benefit analysis in the antidegradation analysis does not use cost savings to the discharger or even a subset of the population (e.g., boat owners that utilized the Tahoe Keys) as justification for allowing degradation. Nor is a comparison of costs and benefits of the discharge relevant in determining the highest water quality consistent with the maximum benefit to the people of State, as no long term or permanent degradation is allowed in an ONRW.

The Lahontan Water Board considers benefit to the Lahontan region of imposing new requirements that ensures that water quality changes are short term and temporary. Greater Lake Tahoe is at risk of the proliferation of aquatic invasive weed infestations originating from the Tahoe Keys Lagoons. Conducting a test that results in only short-term and temporary changes in water quality, and that can help inform an effective long term solution to the weeds problem (which may or may not include aquatic herbicides), will benefit Greater Lake Tahoe and minimize the potential disruption of Lake Tahoe’s recreational economy from the proliferation of invasive aquatic weeds and the impact of invasive aquatic weeds on Lake Tahoe’s outstanding clarity. The test also has the benefit of reducing aquatic invasive weeds.

Furthermore, a comparison of costs and benefits is only relevant to non-ONRW where differing water quality changes and permanent degradation may be allowed. For an ONRW, the highest water quality consistent with the maximum benefit to the people will always be a level that maintains and protects the ONRW. Nonetheless, no public costs of the short term and temporary discharge have been identified. Costs to the discharger in conducting the CMT and costs to recreational boaters of limited boat usage in the keys during the time of the discharge, were not used by the Water Board in its maximum benefit analysis, and the discharger is required to impose best practicable treatment and control to maintain and protect waters.

The permit does not allow an on-going or reoccurring discharge of residual aquatic herbicides. Any future decision about long-term management of aquatic weeds could be based on the results of the proposed control methods test, but is not a component of this proposed project, and would be the subject of a separate public and environmental review process (for which public comment would again be taken) before proceeding.

For an explanation on why the water board is not required to test non-chemical methods prior to allowing the discharge of residual aquatic herbicides, please see Summary Response 6.2

Comment Table 4.11

Comment Number	Public Comment	Commenter
305.084	The evidence that this project will save a $5 billion recreation-based economy has not been presented and most likely cannot be presented since the Keys are private boat docks in the backyards of homeowner's houses, 85% of whom don't even live at the Lake. Boating is a small proportion of the overall recreation economy in Lake Tahoe. Boating from the private backyards of the Keys homeowners is an even smaller proportion of that recreational economy pertaining to just boating. Of all the recreational boating at the Lake, the Keys is a very small part. The burden is on Lahontan to provide evidence to the contrary and they have not done that.	Tahoe Area Group of the Sierra Club
305.085	Even if evidence is presented regarding the percentage of support to the greater Lake Tahoe economy from the Keys' private boating community, demonstration that this discharge is to the maximum benefit to the people cannot be made because these private homeowners (85% of whom are second homeowners) are not the majority of people at the Lake, and certainly not the majority of people who visit the Lake from the entire country and from around the world. The group of people that will have the maximum benefit from this project are the private homeowners at the Keys. As someone who even has a boat docked at the Keys stated: "Why is a real estate development (the Keys) being put above the protection of Lake Tahoe? The convenience of boating from your home should not damage the entire lake. These weeds will never be "under control" to continue this privilege." Lahontan's (and TRPA's) long-term strategy appears quite clear from these statements in Attachment G: "This may save taxpayers from future costs associated with the control of these species." And, "Inform private, state, and federal aquatic resource managers conducting similar aquatic invasive species control projects on Lake Tahoe." Lahontan clearly intends to make aquatic herbicide use an on-going long-term use not just at the Keys, but throughout Lake Tahoe. This "test" project is clearly just a foot-in-the-door to allowing on-going use even though that would clearly, then, violate antidegradation regulations by the very nature of its	Tahoe Area Group of the Sierra Club

Comment Number	Public Comment	Commenter
	on-going treatments. The antidegradation “analysis” is entirely too perfunctory, does not provide a factual basis for its analysis and is wholly inadequate.	
305.088	Socioeconomic and Public Benefits State Board’s Guidance Memo, February 16, 1995, further states the following: “Factors to be considered include (1) past, present, and probable beneficial uses of the water (specified in Water Quality Control Plans); (2) economic and social costs, tangible and intangible, of the proposed discharge compared to the benefits, (3) environmental aspects of the proposed discharge; and (4) the implementation of feasible alternative treatment or control methods. With reference to economic costs, both costs to the discharger and the affected public must be considered. "Cost savings to the discharger, standing alone, absent a demonstration of how these savings are necessary to accommodate 'important social and economic development' are not adequate justification" for allowing degradation. See SWRCB Order No. WQ 86-17, at 22, n. 10. With respect to social costs, consideration must be given to whether a lower water quality can be abated through reasonable means.” The draft permit does not provide any economic impact analysis or provide any evidence of the economic or social costs of the proposed discharge compared to the benefits. Lahontan clearly has not considered “whether a lower water quality can be abated through reasonable means” because it has not fully evaluated non-chemical methods such as LFA and UV light and found them to be ineffective and infeasible, as required by the Basin Plan. Furthermore, with respect to the environmental aspects of the proposed discharge of herbicides, the DEIR/DEIS concluded that testing non-chemical methods is the environmentally superior alternative project. Even if maintaining navigation from private boat docks in the Keys lagoons by using herbicides were important to social and economic development, any cost savings from herbicide use would not be necessary to accommodate it. The State Board has stated: “Cost savings alone, absent any demonstration as to how these cost savings are necessary to accommodate important social and economic development, are not a sufficient basis for determining consistency with the federal antidegradation policy. (State Board Order No. WQ 86-17, at 22, n. 10)	Tahoe Area Group of the Sierra Club

Category 5 Basin Plan Prohibition Exemption

Summary Comment 5.1

The Tahoe Keys Lagoons Aquatic Weed Control Methods Test (CMT) will test a number of various treatment methods and combination of methods in the control of aquatic invasive plants. The Lahontan Water Board should acknowledge that non-chemicals treatments have been tried and preliminary testing of Ultraviolet Light and Laminar Flow Aeration are the latest treatment methods being tested in the Tahoe Keys. Further that only herbicides are known to be effective in controlling aquatic invasive plants. There is concern the continued testing of non-chemical methods may incur extreme costs, only to determine that the tested methodologies will not be capable of controlling aquatic invasive plants and delay in determining what methods or combination of methods are effective. Delaying the CMT will further delay the knowledge needed to know what should be used to control the invasive plants on a large scale. Additionally, conducting the test of non-chemical and chemical sequentially may prevent a valid comparison of the merits of the different control methods. The infestation in the lake is growing and controlling the infestation in the Keys is considered essential to reducing a possible source of invasive plants that spread to the Lake Tahoe.

Summary Response 5.1

For over 30 years, the Tahoe Keys Property Owners Association (TKPOA) have tried various non-chemical methods to control the aquatic invasive plants. Non-chemical efforts to date have failed to address target organisms. Other non-chemical control methods (LFA and UVC-C light) are experimental methodologies that are unproven in controlling AIS on scale and density found in the Tahoe Keys. In contrast, the efficacy of using aquatic herbicides is well documented to control aquatic invasive plants.

The Water Quality Control Plan for the Lahontan Region (Basin Plan) contains a prohibition on the use of aquatic pesticides. The Lahontan Water Board will consider whether to adopt a resolution granting an exemption to this prohibition for the application of two aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac. The Water Board will evaluate the exemption request and determine if it satisfies exemption criteria. Lahontan Water Board staff have prepared a document entitled “Exemption to the Aquatic Pesticide Discharge Prohibition for the Control Methods Test of Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoons Staff Report” (Staff Report) that describes how the application of aquatic herbicides in the Project is eligible for an exemption and how the aquatic herbicide application meets the exemption criteria specified in the Basin Plan.

Comment Table 5.1

Comment Number	Public Comment	Commenter
44.03	Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin	Tom Spencer

Comment Number	Public Comment	Commenter
	Plan provides criteria for when an exemption may be made concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a) Extending ineffective control measures for many additional years or even decades. b) Possibly dooming the control effort to using only methods that might be effective at extreme costs (unfundable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives.	
102.4	Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin Plan provides criteria for when an exemption may be made concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a) Extending effective control measures for many additional years or even decades. b) Possibly dooming the control effort to using only methods that might be effective at extreme costs (unfundable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives.	Michael McGinnis
105.03	Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin Plan provides criteria for when an exemption may be made concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a) Extending ineffective control measures for many additional years or even decades. b) Possibly dooming the control effort to using only methods that might be effective at extreme costs (unfundable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives.	Tom Spencer
110.03	Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin Plan provides criteria for when an exemption may be made concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the	Joshua Willard

Comment Number	Public Comment	Commenter
	exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a) Extending effective control measures for many additional years or even decades. b) Possibly dooming the control effort to using only methods that might be effective at extreme costs (unfundable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives.	
112.02	Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin Plan provides criteria for when an exemption may be made concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a. Extending ineffective control measures for many additional years or even decades. b. Possibly dooming the control effort to using only methods that might be effective at extreme costs (unfindable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives.	Dean Moser
166.03	1. Non-chemical methods have been applied for a number of years by TKPOA, without success in controlling AIP problems in the Keys. They include harvesting, ultraviolet light, laminar flow aeration, bubble curtain, diver hand-pulled, boat backup station, bottom barriers, and circulation system. The Sierra Club does not list all these non-chemical control methods, nor expressly state that they shall be continuing. See TKPOA letter dated April 30, 2021 for revisions to BPE Application and Aquatic Pesticide Application Plan (APAP.). The Sierra Club does not note these revisions.	Albert Chandler
182.01	I support the Tahoe Keys Property Owners Association Control Methods Test as written, and to include the Test of Herbicides. I have lived in the keys for the past four years, and each year I have seen the weed problem get worse. Current control methods are ineffective or just plain don't work. I have manually cleared weeds on a regular basis from my waterfront, I have never been able to keep up with the weed growth. I participated in the bottom barrier program, but this was expensive and had no effect on areas not covered. This is impractical to use on a large scale. Herbicides must be included in the Control Methods Test. I believe that the exemption criteria have been met within the CMT proposal, These herbicides have been safely used in	Greg Gunsky

Comment Number	Public Comment	Commenter
	many bodies of water throughout the country. Living in the Keys has been a lifelong dream. I want nothing more than to keep Lake Tahoe clear and pure. Successfully defeating the invasive weed growth is of the utmost importance. Thank you for your efforts to help solve this issue,	
187.03	Lahontan Board Consideration-of-the-Tentative-permit Needs to Acknowledge that No control-----Options, with the Exception of Herbicides, Are Known to Be Feasible at the Scale of the Tahoe Keys Lagoons - No aquatic invasive plant control methods available are capable of bringing an infestation the size of the Tahoe Keys Lagoons under control, except for herbicides. The experimental UV-C Light technology is small-scale (narrow treatment area), unproven, costly, and unable to effectively eradicate plants in the setting and water quality conditions of the Tahoe, Keys Lagoons. UV-C Light's feasibility will be tested by the CMT Project, but the in-water challenges of docks, piers, rocks and poor water quality (due in large part to the plant infestation) make its efficacy questionable. Many of the same UV-C Light shortcomings for large scale use apply to the other methods that will be tested, making herbicides the only known method that can feasibly treat and control the extensive infestation of aquatic invasive plants in the Tahoe Keys Lagoons. Express recognition of this fact will allow the Lahontan Board to meet the criteria for exempting the CMT Project from the Basin Plan Prohibition on the use of herbicides.	TKPOA Board of Directors
341.01	These approvals to implement the full scope of the CMT Project, including the testing of herbicides, are founded on: 1) the time-critical threat of the invasive plants to Lake Tahoe, 2) the proven feasibility, safety, and efficacy of use of the same herbicides in similar settings throughout California, and 3) the lack of evidence supporting the feasibility for any of the optional control methods to bring the invasive plants under control at a scale of the Tahoe Keys Lagoons.	Pete Wolcott /TKPOA
344.02	Survey data from the Tahoe Resource Conservation District in 2021 shows new and expanding infestations of curly leaf pondweed and Eurasian watermilfoil in over 100 acres of Lake Tahoe proper outside the Tahoe Keys. This represents clear evidence that control of the invasive plants in The Keys lagoons is not only “time-sensitive” as previously asserted by TKPOA, but arguably now should be considered an “emergency” to minimize the future spread from the lagoons into Lake Tahoe.	Peter Wolcott /TKPOA

Comment Number	Public Comment	Commenter
262.08	The proposed test meets the prohibition exemption, and satisfies the need for a mix of methods to be tested in isolation and combination with extensive monitoring.	League to Save Lake Tahoe
262.15	The No Action Alternative would have potentially significant, unavoidable effects on all water quality issues (temperature, turbidity, dispersal of aquatic plant fragments, pH, dissolved Page 3 of 5 oxygen, and phosphorus and nitrogen concentrations), as well as a significant effect on recreational boating, because aquatic weeds would continue to propagate. The current control methods have been proven ineffective for an infestation of this scale and complexity. Containment measures funded, developed and supported by the League – a bubble curtain, laminar flow aeration, and a boat back-up station – while effective and necessary as part of the near-term control effort, are only stop-gap measures until the larger infestation is brought under control.	League to Save Lake Tahoe
262.17	Current tools are not sufficient The Tentative Resolution Granting an Exemption to Pesticide Discharge Prohibition concludes that control methods “testing to date has had limited results.” There have been limited preliminary tests of control methods, such as ultraviolet light and laminar flow aeration, at Lake Tahoe. While initial results in locations outside of the Tahoe Keys lagoons are promising, those have not yet proven adequate for the complexity and scale of the Tahoe Keys lagoons infestation, nor for the water quality conditions that persist. In short, there is no silver bullet. We need to test all tools – proven and innovative – to find the optimal combination for eventual, sustainable, long-term treatment. The approach to use Group A (chemical and non-chemical) methods to knock back the biomass of an infestation and then Group B methods (non-chemical) to maintain the condition is both unique and innovative, and it ensures that chemical methods cannot and will not be used in perpetuity at Lake Tahoe.2 We have the opportunity to control aquatic weeds in Lake Tahoe before their populations get completely out of hand. This opportunity starts at the Tahoe Keys lagoons with a multi-faceted, science-based, strictly-monitored and safe test. The results of the test will form the foundation of a pragmatic, data-based proposal for a long-term solution to the largest infestation of aquatic weeds at Lake Tahoe. Harvesting, the only currently approved method, doesn’t work. Once harvesting was approved, fragments spread that exacerbated the problem. Though tons of materials have been removed annually, the problem is getting worse.	League to Save Lake Tahoe

Comment Number	Public Comment	Commenter
262.2	The League is encouraged that the Tentative Resolution Granting an Exemption to Pesticide Discharge Prohibition was thoroughly investigated and supported by Lahontan staff. The Resolution concludes that “testing to date has had limited results”, that AIS “poses a major threat to Lake Tahoe”, that this test is limited to a “one-time herbicide application”, and that the CMT "satisfies all the applicable exemption criteria.” We are also encouraged that the Resolution and mitigative measures have been peer-reviewed by the Tahoe Science Advisory Council and that Lahontan staff has concluded that “granting the exemption will not result in any degradation."	League to Save Lake Tahoe
307.02	2) Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin Plan provides criteria for when an exemption may be made concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a) Extending ineffective control measures for many additional years or even decades. b) Possibly dooming the control effort to using only methods that might be effective at extreme costs (unfundable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives.	Tom Spencer
341.1	• The efficacy of herbicide use throughout the western U.S. has been demonstrated without unintended negative environmental consequences. This includes proven control of the CMT Project target plants without adverse environmental consequences to aquatic, terrestrial, and human resources in similar settings with comparable beneficial uses and proximities to potable water supplies. Please refer to Attachment 3, List of Other Known California Sites Approved for Use of Proposed Aquatic Herbicides. TKPOA strongly feels that approval of the full scope of the proposed CMT Project, including the testing of selective herbicides, by the Lahontan Board is the only scientifically valid approach to compare the known feasibility of herbicides to unproven alternate control methods, including that of ultraviolet (UV-C) light	Pete Wolcott /TKPOA
63.03	Herbicides must be part of the CMT, even though the Basin Plan calls for excluding herbicides in Lake Tahoe unless all other methods have proven ineffective. However, the Basin Plan provides criteria for when an exemption may be made	Gina Thompson

Comment Number	Public Comment	Commenter
	concerning the discharge of aquatic herbicides into the receiving waters connected to Lake Tahoe. I believe that the exemption criteria have been met within the CMT proposal. Not including aquatic herbicides in the CMT could result in: a) Extending effective control measures for many additional years or even decades. b) Possibly dooming the control effort to using only methods that might be effective at extreme costs (un-fundable), without ever proving if herbicides could be safely managed, physically effective and affordably integrated into a suite of alternatives	
341.03	10 Years of Testing Bottom Barriers and Diver-Assisted Hand Removal, and Recent Years of Testing Laminar Flow Aeration and UV-C Light Technology Do Not Demonstrate that These Methods are Feasible at the Scale of the 172 Acres of Tahoe Keys Lagoons – In the EIR/EIS for the CMT Project, there is neither data, literature cited, nor analyses presented that support the feasibility of any of the CMT Project test methods at the scale of the Tahoe Keys Lagoons except for herbicides. To be able to scientifically and reliably compare the merits of the proposed test methods at the small scale of the CMT Project, herbicides need to be tested concurrently with the other methods. With many water quality, weather pattern, water year, plant growth and other variables, not testing all methods concurrently would prevent a valid comparison of the merits of the optional control methods. The inability to credibly compare the test results at the proposed small scale of the CMT Project would disrupt and confound the collaborative partnership's (Tahoe Regional Planning Agency, Tahoe Resource Conservation District, League to Save Lake Tahoe, TKPOA and others) ability to extrapolate the CMT Project's results to inform next steps planning for a comprehensive integrated management plan for the Tahoe Keys.	Pete Wolcott /TKPOA
341.06	• For more than 30 years, TKPOA has removed aquatic plants from the Tahoe Keys lagoons to maintain navigation and other beneficial uses of the surface water. Mechanical harvesting is the primary means by which aquatic weeds are maintained, although other methods to remove/control aquatic weeds have been implemented with no or limited (small-scale) success, including bottom barriers, hand-pulling, rotovation, dredging, SolarBee®, laminar flow aeration (LFA), and water circulation. These methods either did not effectively control aquatic plant growth sufficiently to maintain waterway navigation or were not feasible for controlling aquatic plant growth beyond small-scale	Pete Wolcott TKPOA

Comment Number	Public Comment	Commenter
	applications of a few hundred square feet (compared to the approximately 172 acres of waterways in the lagoons). Comprehensive and thorough evaluations of alternative control methods, including literature and on-the-ground testing, have been completed by TKPOA, TRCD, and the EIR/EIS Lead Agencies through the environmental review process for the proposed CMT Project. These evaluations are available for review in the Draft EIR/EIS. And because the new UV-C light technology is also small scale, experimental, and not shown to be feasible, the testing of herbicides is necessary as a next step in developing a large-scale integrated management plan to bring the curlyleaf pondweed and other invasive plants under control in the lagoons.	
341.07	• Testing of ultraviolet (UV-C) light technology for control of aquatic weeds has been experimental to date, with some limited success at a small scale. However, the technology kills all aquatic plants, both native and non-native, and much is unknown about the technology (including long-term effects on the aquatic environment), it is not commercially proven, and there are many challenges in the Tahoe Keys lagoons. These challenges, which include higher concentrations of nutrients, suspended solids, and overall lower light transmissivity of the lagoons, are noted in the Project EIR/EIS, “conditions in the Tahoe Keys are somewhat different from … prior test sites, such as higher turbidity, which can reduce plant exposure to UV light radiation.” These conditions reduce the effectiveness of UV-C light on plants and increase the frequency and duration of treatments, and maintenance cleaning of the lamps, required for a successful application. Previously limited success treatments at Lakeside Marina and in the West Channel of the Tahoe Keys where waters are much clearer than the lagoons included treatments of 15 to 20-minute duration. Within the Tahoe Keys lagoons, preliminary treatments have been between 5 minutes – 20 minutes exposure, with increased exposure times resulting in better reduction of plants. Given the previously mentioned challenge of turbidity and transmissivity, as well as the logistical challenges of docks, rocks and other obstacles, more frequent or longer duration treatments are anticipated to be required for inside the lagoons. Calculations for the CMT Project estimate one round of UV-C treatment (with 2 boats/arrays) would take approximately 60 days for all UV-C-only and Combination CMT Project test sites. As such, UV-C treatment technology	Pete Wolcott TKPOA

Comment Number	Public Comment	Commenter
	currently is extremely costly, time consuming, logistically impracticable for the obstructions in the lagoons, and labor-intensive. A simple calculation of using UV-C light technology in its current state of development produces the below boat and duration numbers that would be necessary if UV-C light were attempted to be used as the only control method for the 172 acres of lagoons. For purposes of estimating what total treatment time may be needed to treat the weeds effectively lagoons-wide, the below table uses 10- and 15-minute exposure times, which are the current medium-low and medium-high treatment times that are being experimented with in current treatments (this compares to the low and high treatment durations of 5 minutes and 20 minutes). Even if we assume that UV-C light treatments are 100 percent effective, which has not been demonstrated to date, this table shows that the technology is not currently feasible from a practicable, temporal, or economic standpoint. Therefore, herbicides need to be tested with the other control methods. Table 1. Estimated Treatment Duration for 172 Acres	

Summary Comment 5.2

The use of chemicals in the Tahoe Keys is a bad idea. The Water Board staff should follow state and federal regulations, such as the Water Board's prohibition and the accompanying exemption criteria, which state the following: "Demonstration that non-chemical measures were evaluated and found inappropriate/ineffective to achieve the project goals." Thus, all non-chemical measure should be fully tested before chemical measures are considered.

Not only is a 'one time test' a bad idea, but it also sets a very dangerous precedent of allowing additional herbicides in the future. Herbicide applications are intended to be performed annually at the onset of the growth period therefore the proposed "one-time" application is inconsistent with the effective use of herbicides

Summary Response 5.2

Lahontan Water Board staff have prepared a document entitled "Exemption to the Aquatic Pesticide Discharge Prohibition for the Tahoe Keys Lagoons Aquatic Weeds Control Methods Staff Report" (Staff Report) that describes how the application of aquatic herbicides in the Project is eligible for an exemption and how the aquatic herbicide application meets the exemption criteria specified in the Basin Plan.

The Basin Plan contains a prohibition on the use of aquatic pesticides (to include herbicides) and exemption criteria to authorize the use of aquatic pesticides. The first criterion for an exemption states:

“Demonstration that non-chemical measures were evaluated and found inappropriate/ineffective to achieve the project goals. (Alternative to pesticide use must be thoroughly evaluated and implemented when feasible (as defined in CEQA guideline 15364: Feasible means being capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.)”

This criterion does not state that all non-chemical measures must be fully tested before using an aquatic pesticide. It does not state that all non-chemical measure must be thoroughly developed with years of implementation to improve effectiveness. Only a demonstration made that non-chemical measures were evaluated and found inappropriate/ineffective to achieve the project goals is necessary.

The project goal for TKPOA’s CMT project is to: Evaluate the effectiveness of multiple AIP treatment methodologies, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will: 1) quickly reduce the AIP biomass 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce invasive weed re-infestation.

In order to compare the effectiveness of the different AIP treatment methodologies with minimal variability in testing conditions, it is important that all AIP treatment methodologies being considered for future use be evaluated at the same time in the same or very similar environment. Testing only non-chemical methods would be ineffective in achieving the project goals.

Furthermore, criterion 6 for an exemption states:

“A description of the failure of non-chemical measures to effectively address the target organisms. The description will include either (1) evidence that non-chemical efforts failed to address target organisms or (2) justification, accepted by Regional Board, of why non-chemical measures were not employed or are not feasible (CEQA Guideline 15364) to achieve the treatment goals.”

For over 30 years, the Tahoe Keys Property Owners Association (TKPOA) have tried various non-chemical methods to control the aquatic invasive plants. Non-chemical efforts to date have failed to address target organisms. Other non-chemical control methods (LFA and UVC-C light) are experimental methodologies that are unproven in controlling AIS on scale and density found in the Tahoe Keys. In contrast, the efficacy of using aquatic herbicides is well documented in the use to control aquatic invasive plants. Performance measures for evaluating project effectiveness include achieving and maintaining 75% reduction in aquatic weed biovolume, as measured against baseline biovolumes in test sites by hydroacoustic surveys in the summer prior to treatment. The 75% reduction in aquatic weed biovolume was based on an expectation that this would be the minimum Group A method effectiveness required before Group B spot-treatment methods could be effective at maintaining reductions in the aquatic weed infestations.

Aquatic herbicides, Ultraviolet-C (UV-C) light and Laminar Flow Aeration (LFA) are group A methods in the CMT.

The CMT involves a one-time aquatic herbicide application. A long-term weeds management strategy that includes herbicides or a repeated aquatic herbicide application is not under consideration by the Lahontan Water Board.

Comment Table 5.2

Comment Number	Public Comment	Commenter
61.01	I implore you to follow all federal and state regulations, as well as your own regulations in matters relating to Lake Tahoe. All non-chemical methods must be fully tested before testing herbicides. Lake Tahoe cannot be degraded.	Linda Murphy
324.05	The Basin Plan criteria for exemption from the herbicide prohibition require “Demonstration that non-chemical measures were evaluated and found inappropriate/ ineffective to achieve the project goals …” and “Alternatives to pesticide use must be thoroughly evaluated …”. Non-chemical control methods (laminar flow aeration (LFA) and UV-C light) have not been thoroughly evaluated in the Tahoe Keys lagoons. A thorough evaluation of a non-chemical control method would require enough years of implementation to significantly improve the effectiveness of a method. Evaluation of UV-C light in the lagoons has been very limited. The 2020 TKPOA report on the ongoing laminar flow aeration experiment states that aeration reduced the depth of muck, but also suggests that considerable further effort is needed to optimize effectiveness. The size of the area influenced by a diffuser, surely a basic measure of effectiveness needed for estimation of the number of diffusers required, is stated to be “relatively unknown”. The diffusers have been moved closer together, as suggested by the diffuser supplier, to increase effectiveness. Designating the site of the ongoing LFA experiment as one of the CMT LFA treatment sites is an opportunity to consider modifications of the ongoing LFA experiment. Designers of the CMT experiment should make sure that a sufficient number of aerators are deployed on the other LFA treatment sites. Given these implementation problems, a near-optimal implementation of laminar flow aeration in the CMT and a convincing evaluation of its effectiveness should not be counted on.	John Moore
71.01	We've vacationed at Lake Tahoe at the past, and it was beautiful. Needless to say, it will not be attractive as a vacation destination in the future, if it becomes toxic soup! You must follow federal, state and your own regulations! All	Jo-Anne Harris

Comment Number	Public Comment	Commenter
	non-chemical methods must be fully tested before testing herbicides. Lake Tahoe cannot be degraded.	
73.02	The Tahoe Keys have been battling the non-native, invasive weeds (Eurasian Watermilfoil, Coontail and Curly-leaf Pondweed) in their lagoons for decades. The plants are affecting the water by diminishing clarity, affecting recreational activities, and reducing property values. While the Keys have attempted various mitigation efforts with varying levels of success, they appear to be convinced that their best next step is to include the use of herbicides to attempt to eradicate the weeds. It is disappointing that any oversight agency is considering overriding the law by issuing a permit. We agree that much more aggressive efforts are needed to combat the proliferation of the invasive weeds, and the threat the weed poses to the entirety of Lake Tahoe. We believe that more aggressive action should include a dramatic increase in methods other than herbicides, including matting, harvesting, quarantining, diver assist suction and ultraviolet light treatment	Lakeside Park Association and Lakeside Park Mutual Water Company
73.03	While these test efforts are being employed at a level, the investment in non-chemical mitigation strategies should be dramatically increased before the ‘one time’ use of herbicides in Lake Tahoe are considered or deployed. If it is only ‘one time’ then why do it? If any success is achieved you will see these chemicals, which are poisonous to drink, used over and over in the lake. Herbicides are prohibited by law in Lake Tahoe. They have never been allowed or used. Now is not the time to circumvent the law by issuing a permit to use herbicides. Not only is a ‘one time test’ a bad idea, but it also sets a very dangerous precedent of allowing additional herbicides in the future. A very bad idea. Herbicide applications are intended to be performed annually at the onset of the growth period therefore the proposed “one-time” application is inconsistent with the effective use of herbicides. How are we supposed to believe that this is really a one-time application?	Lakeside Park Association and Lakeside Park Mutual Water Company
59.01	Please fully test all non-chemical methods before even considering using herbicides in and around Lake Tahoe.. You must follow federal and state regulations concerning Tahoe's water quality, including your own regulations. All non-chemical methods must be fully tested before testing herbicides. Lake Tahoe must not - cannot - be degraded	Colleen McMullen

Summary Comment 5.3

Deny the use of aquatic herbicides until all non-chemical methods have been thoroughly tested, more time to test laminar flow aeration, the water filtration system owned by the Tahoe Keys must be functional again and the lagoons should be inoculated with enzymes to accelerate nutrient reduction. The cost should not be a consideration in combatting invasive species in the Tahoe Keys Lagoons

Summary Response 5.3

See Summary response 5.2 on why non-chemical methods do not need to be tested first. The Regional Board is not required to consider the comparative costs of different non-chemical methods and chemical methods. Neither the water filtration system nor inoculating the Lagoons with an enzyme have been proposed by the project proponent as part of the CMT test.

Comment Table 5.3

Comment Number	Comment	Commenter
365.01	I have several concerns regarding the draft permit to allow testing of aquatic herbicides and request your denial for the following reasons: The first and most important point is that the board should not provide permits for the use of chemicals in Lake Tahoe until all non-chemical methods have been thoroughly tested. Since I have been engaged in this process over the last six plus years and the information provided on testing done prior to that time, none of the non-chemical methods tested for reducing/eliminating invasive weeds and nutrients have been applied for the length of time or in a large enough area to allow for effective results. Whether this is intentional or not it needs to be acknowledged and therefore the testing of herbicides postponed. As an example, the aeration system installed mid summer, just over a year ago, has not been working full-time, including spring when weeds start growing and the aeration is most effective. Also, it was only installed in 3% of the Keys, 6 of 179 acres. In addition they could seek permits to add enzymes that would accelerate the nutrient reduction. The board should accept the use of enzymes before accepting the use of aquatic herbicides. This is only one example. The scale and time frame used for testing mats, UV light, etc was also inadequate. The excuse tends to be the cost of the testing, yet there have been millions of dollars provided to Lake Tahoe for fighting invasive species, just recently 17 million has been designated. The conservation districts and Tahoe Fund to name a few have also had funding available to assist. Most important to note regarding funding, is that for over 35 years the TKPOA avoided	Elise Fett

Comment Number	Comment	Commenter
	spending the money to maintain and run the circulation system and filtration system that was designed into the plan when the development was approved. The circulation system with pumps and pipes that circulate water in the Keys plus a filtration system was installed in the Keys subdivision because it was obvious when they proposed the project that there would be stagnant water that would then become infested and toxic, as it has. The TKPOA stopped using the systems because it was expensive to run. The weeds became a noticeable problem within five years. They have saved themselves an enormous amount of money at the cost of infesting not only themselves, but now Lake Tahoe with invasive weeds (even the native weeds are an issue with the current conditions). It is past time for the homeowners to pay as necessary to properly and sustainably maintain the waters that by nature of their design do not allow the filtration and circulation necessary for clarity. Ever since the circulation and filtration were abandoned, the Keys have been focusing their efforts on trying to get aquatic herbicides permitted because one of their home owners, Lars Anderson (a UC Davis professor who was funded 90%+ by agricultural chemical companies), became their “consultant” for the issue. In the meantime, they accelerated the growth of the invasive weeds by using a ripping removal method that spread and multiplied the weeds via seeds and fragments. This and the amount of money spent trying to get the permit to use aquatic herbicides could’ve been put towards resolving the source of the problem. In order to resolve the stagnant conditions the circulation system installed when the Tahoe Keys were developed must be made functional again and improved upon (the pumps work, the pipes just need to be cleaned and it needs to be expanded). They also need a new filtration system built in a more effective location to replace the old one they abandoned and/or they need to install and/or utilize surrounding wetlands for filtration. Again, see my previous comments regarding funding should not be considered an issue when you consider the amount of money that the TKPOA has avoided investing in their issue over the last 40 years by not maintaining and running the systems in place .....plus the added funding from the MANY outside sources who have stepped up to resolve the disaster area they allowed at the direction of Lars (who’s aquatic herbicide project caused Clear Lake to be exceptionally toxic and weed infested)	

Comment Number	Comment	Commenter
383.06	The beaches in South Lake Tahoe are now littered with ash, burnt pine needles and pinecones, a murky, stinky shoreline, and algae blooms. How can you not include these impacts in your reports? Or at least delay the consideration of the herbicide permit until these impacts have been properly studied? Given that you have not fully explored the non-chemical methods of invasive weed and cyanobacteria bloom controls, what is waiting a few extra years for these environmental impacts to fully unfold to see how they will affect the invasive weeds and cyanobacteria blooms? How can you propose herbicides when you haven't even given the non-toxic methods such as LFA and UV light enough time to work? What's the rush? An inconvenience to boat owners is a small sacrifice to find out if these non-toxic methods are effective.	Trish Friedman

Summary Comment 5.4

The project proposal clearly does not comply with the Basin Plan Exemption Criteria requiring a "justification . . . of why non-chemical measures were not employed or are not feasible (CEQA Guideline 15364) to achieve the treatment goals," It is asserted that the Staff Report fails to provide justification for an exemption and the exemption should be denied.

The Fact Sheet fails to mention that even in a supposedly experimental situation such as the CMT, the Basin Plan requires non-chemical methods must be demonstrated to be ineffective before any discharge of herbicides is permitted. Neither the Lahontan Water Board nor TKPOA has demonstrated this.

Summary Response 5.4

See Summary response 5.2 on why non-chemical methods do not need to be tested first. The project goal states the underlying purpose of the project: to test which methodologies will: 1) quickly reduce the AIP biomass, 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce invasive weed re-infestation. This is not a narrow definition of a project goal.

Comment Table 5.4

Comment Number	Comment	Commenter
305.009	Just as the Basin Plan itself borrows CEQA's definition of "feasibility," related CEQA case law regarding project objectives is instructive, consistent with the Plan requirements, and contrary to the position of the proposed Order and Staff Report. (See North Coast Rivers Alliance v	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	Kawamura (2015) 243 Cal.App.4th 647, 668 [Project objectives should not be so narrowly defined that they preclude consideration of reasonable alternatives for achieving the project's underlying purpose.]) Here, it is inaccurate and unduly restrictive to define the project objective as a project to test and compare chemical and non-chemical treatment methods, in a vacuum. In reality, the overarching and true project objective is to remove aquatic invasive species from the Tahoe Keys. This situation is very analogous to Habitat & Watershed Caretakers v City of Santa Cruz (2013) 213 Cal.App.4th 1277, 1299. In that case, the court emphasized the importance of basing the statement of objectives on the underlying purpose of the project. The court noted that the draft EIR's description of the project was too narrow because it focused on the nature of the project, which it described as implementing a settlement agreement relating to expansion of the University of California, Santa Cruz, campus and seeking a sphere of- influence change. A revised statement of project objectives described in the final EIR was sufficient, however, because it described the purpose of the project: to provide water and sewer service for expansion of the campus. The same is true here, where the underlying purpose of the project is removal of aquatic invasive growth, not testing and comparing removal methods in a vacuum. The project proposal clearly does not comply with the Plan Exemption Criteria requiring “justification . . . of why non-chemical measures were not employed or are not feasible (CEQA Guideline 15364) to achieve the treatment goals,” since the newer technologies of UV light and laminar flow aeration have not been demonstrated to be ineffective as treatment methods. In addition, the Implementation Plan for the Control of Aquatic Invasive Species within Lake Tahoe, July 31, 2015, cites results of a “comprehensive removal program using a combination of benthic barriers and diver assisted suction removal” in Emerald Bay that showed “successful removal of Eurasian watermilfoil can occur.” The project’s purported goal, therefore, seeks to circumvent the clear intent of the criterion, that all non-chemical methods must be fully examined first and deemed ineffective, which has not been demonstrated. The above attempt to justify the use of herbicides hides behind the goal of the project, fails to disclose successful non-chemical treatments elsewhere in the Lake, and	

Comment Number	Comment	Commenter
	provides no discussion of how non-chemical methods were found to be ineffective/inappropriate. 5	
305.01	The Staff Report claims that the second criterion is satisfied by these statements: “In response to the growing infestation of target aquatic weeds in the Tahoe Keys and to limit non-point sources of pollution, TKPOA was tasked with developing a Non-Point Source Water Quality Management Plan (NPS Plan), and an Integrated Management Plan (IMP) to address target aquatic plant species management. Both plans are being implemented and a variety of non-herbicidal control methods have been utilized. However, due to the size, density and dominance of the infestation in the Tahoe Keys Lagoons, these control methods have produced limited results. In addition, these current control methods also produce large quantities of weed fragments, which risk the further spread of aquatic weed infestations throughout the shallow nearshore waters of Lake Tahoe. Non-chemical efforts to date have failed to address target organisms. Other non-chemical control methods (LFA and UVC-C light) are experimental methodologies that are unproven in controlling AIS on scale and density found in the Tahoe Keys. The proposed CMT project will be evaluating both non-chemical and chemical treatment methodologies concurrently to compare the effectiveness of each treatment methodology and combinations of treatment methodologies. The following reasons provide a justification of why the CMT project may proceed, concurrently evaluating both non-chemical measures and chemical measures. 1. Non-chemical treatment methodologies will be employed in the Project. 2. TKPOA has been utilizing mechanical measures to control AIP, which has failed to control growth and spread of AIP in the Tahoe Keys Lagoons. 3. The Lake Tahoe Aquatic Invasive Species Coordination Committee’s 2015 AIP Plan prepared by the University Nevada Reno identifies the Tahoe Key Lagoons as highest priority location within Lake Tahoe to be treated for Aquatic Invasive Species, including AIP. 4. The CMT project will be testing two experimental non-chemical treatment methodologies (LFA and UVC-C light) to compare their effectiveness to that of two chemical treatment methodologies in the Tahoe Keys Lagoons. 5. The original CMT project has been modified through a collaborative approach with assistance from the League to Save Lake Tahoe, Tahoe Regional Planning	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	Agency, and substantial work by other stakeholder groups. The collaborative approach has increased the project's scope regarding nonchemical treatment methodology evaluation and reduced the scope of herbicide use to a one-treatment event test application at multiple locations involving significantly less area than originally proposed. Further limiting the CMT project to evaluating only non-chemical treatment methodologies will reduce the knowledge to be gained and will not accomplish the goals of the project. The information obtained through the proposed CMT project will be used to assist TKPOA, regulatory agencies, and others in making informed decisions regarding the future treatment methodologies TKPOA will use to control AIP. Including chemical use 14 as part of a future IMP will require a separate project evaluation and Basin Plan prohibition exemption prior to the IMP being accepted by the Lahontan Water Board.	
305.011	The Staff Report claims that the second criterion is satisfied by these statements: "In response to the growing infestation of target aquatic weeds in the Tahoe Keys and to limit non-point sources of pollution, TKPOA was tasked with developing a Non-Point Source Water Quality Management Plan (NPS Plan), and an Integrated Management Plan (IMP) to address target aquatic plant species management. Both plans are being implemented and a variety of non-herbicidal control methods have been utilized. However, due to the size, density and dominance of the infestation in the Tahoe Keys Lagoons, these control methods have produced limited results. In addition, these current control methods also produce large quantities of weed fragments, which risk the further spread of aquatic weed infestations throughout the shallow nearshore waters of Lake Tahoe. Non-chemical efforts to date have failed to address target organisms. Other non-chemical control methods (LFA and UVC-C light) are experimental methodologies that are unproven in controlling AIS on scale and density found in the Tahoe Keys. The proposed CMT project will be evaluating both non-chemical and chemical treatment methodologies concurrently to compare the effectiveness of each treatment methodology and combinations of treatment methodologies. The following reasons provide a justification of why the CMT project may proceed, concurrently evaluating both non-chemical measures and chemical measures. 1. Non-chemical treatment	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	methodologies will be employed in the Project. 2. TKPOA has been utilizing mechanical measures to control AIP, which has failed to control growth and spread of AIP in the Tahoe Keys Lagoons. 3. The Lake Tahoe Aquatic Invasive Species Coordination Committee's 2015 AIP Plan prepared by the University Nevada Reno identifies the Tahoe Key Lagoons as highest priority location within Lake Tahoe to be treated for Aquatic Invasive Species, including AIP. 4. The CMT project will be testing two experimental non-chemical treatment methodologies (LFA and UVC-C light) to compare their effectiveness to that of two chemical treatment methodologies in the Tahoe Keys Lagoons. 5. The original CMT project has been modified through a collaborative approach with assistance from the League to Save Lake Tahoe, Tahoe Regional Planning Agency, and substantial work by other stakeholder groups. The collaborative approach has increased the project's scope regarding non chemical treatment methodology evaluation and reduced the scope of herbicide use to a one-treatment event test application at multiple locations involving significantly less area than originally proposed. Further limiting the CMT project to evaluating only non-chemical treatment methodologies will reduce the knowledge to be gained and will not accomplish the goals of the project. The information obtained through the proposed CMT project will be used to assist TKPOA, regulatory agencies, and others in making informed decisions regarding the future treatment methodologies TKPOA will use to control AIP. Including chemical use 14 as part of a future IMP will require a separate project evaluation and Basin Plan prohibition exemption prior to the IMP being accepted by the Lahontan Water Board."	
305.011 (continued)	The primary non-chemical control method used for several decades is mowing and removing the weeds low enough that they do not hinder navigation. Mowing produces large quantities of fragments which cannot be collected and removed. Some fragments settle into the sediment creating new infestations in the Keys while others are transported into the Lake creating new infestations there. Several decades of mowing have only made the weed problem worse. The above statement in the Staff Report claims that LFA (laminar flow aeration) and UVC-C light are "experimental methodologies that are unproven in controlling AIS." Yet the 2020 TKPOA Laminar Flow Aeration End of Season Report states that "Sediment	Tahoe Area Group of the Sierra Club

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	sampling data does appear to support the 2nd objective of the LFA project", which is "Reduce organic matter in sediments around the LFA diffusers." LFA increases dissolved oxygen in the sediment layer, controlling nutrients that lead to excessive aquatic weed and algae growth and increasing biological activity in the benthic layer, which accelerates the decomposition of organic muck at the bottom. LFA and UV light should be thoroughly tested and evaluated with other non-chemical methods (benthic barriers and diver-assisted suction dredging) before chemicals are used. The above statement is not a "description of the failure of non-chemical measures to effectively address the target organisms," which is what the criterion requires. Applying and evaluating chemical methods without having first shown that non chemical methods are ineffective violates the exemption criterion. Lahontan should have informed TKPOA about this violation when they received the application. Instead, Lahontan has expended significant staff resources on the environmental process for this Project. Without having demonstrated that non-chemical methods, alone, are not effective, testing chemical methods (with or without concurrent tests of non-chemical methods) is a violation of the Basin Plan. When the Basin Plan was amended in 2011, the above exemption criteria were included to ensure that no pesticides would be used in the Lake without adequate justification and demonstration that all other less toxic approaches had been shown to be ineffective. The Proposed Project is essentially an attempt to circumvent both the intent and the regulatory standard of the Basin Plan. We assert that the Staff Report fails to provide justification for an exemption and that the exemption should be denied.	
305.063	This section further states: "TKPOA is currently testing laminar flow aeration and ultraviolet light treatment methods on a limited scale in the Main Lagoon. Due to the size, density, and dominance of the infestation in the Tahoe Keys Lagoons, routinely implemented control methods have produced limited results." A detailed description of all the past implementations of these control methods and a summary of the results should be added to this section. Why haven't the results been made public? This is a completely unsatisfactory response to the requirement in the Basin Plan that the ineffectiveness of	Tahoe Area Group of the Sierra Club

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	non-chemical methods be demonstrated before herbicides are permitted.	
305.065	Section II.B of the Fact Sheet states that the purpose of the test is comparison of herbicide treatments and combinations of herbicide and non-chemical treatments with non-chemical treatments. The Fact Sheet fails to mention that even in a supposedly experimental situation such as the CMT, the Basin Plan requires that non-chemical methods must be demonstrated to be ineffective before any discharge of herbicides is permitted. Neither Lahontan nor TKPOA has demonstrated this.	Tahoe Area Group of the Sierra Club
305.008	The proposed project fails to comply with the Basin Plan Exemption Criteria that require a demonstration that non-chemical methods have been shown to be ineffective or inappropriate. The Exemption Criteria for Controlling Aquatic Invasive Species (AIS) and Other Harmful Species in Chapter 4 (page 4.1-9), provides prohibition exemption criteria language for a variety of project types: Emergency Projects, Time-Sensitive Projects, and Projects That Are Neither Emergencies Nor Time Sensitive. The criteria for both Time-Sensitive Projects and Projects that are Neither Emergencies Nor Time Sensitive require demonstration that non-chemical methods must be shown to be ineffective or inappropriate. The Basin Plan criterion for "Time-Sensitive" projects requires: "Demonstration that non-chemical measures were evaluated and found inappropriate/ ineffective to achieve the project goals. (Alternatives to pesticide use must be thoroughly evaluated and implemented when feasible (as defined in CEQA Guideline 15364: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.)" The Basin Plan criterion for non-Emergency and non-Time Sensitive projects requires: "A description of the failure of non-chemical measures to effectively address the target organisms. The description will include either (1) evidence that non chemical efforts failed to address target organisms or (2) justification, accepted by Regional Board, of why non-chemical measures were not employed or are not feasible (CEQA Guideline 15364) to achieve the treatment goals." The project must satisfy both of the above criteria. The Staff Report, however, does not show that these criteria have been satisfied and that the use of herbicides is justified. The Staff Report states the project	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	goal as: “The primary purpose and goal of the CMT project is to evaluate the effectiveness of multiple AIP [Aquatic Invasive Plant] treatment methodologies, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will: 1) quickly reduce the AIP biomass 2) bring infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce re-infestation.” The Staff Report claims that the first criterion is satisfied by these statements: “The information generated by the CMT test will be used by TKPOA to update or to develop a new Integrated Management Plan for Aquatic Invasive Weeds (IMP)1. As recommended by the Lake Tahoe Aquatic Invasive Species Coordination Committee’s 2015 AIS Plan, TKPOA is considering multiple AIP treatment methodologies, including chemical and non-chemical, in updating/developing its IMP. In order to compare the effectiveness of the different AIP treatment methodologies with minimal variability in testing conditions, it is important that all AIP treatment methodologies being considered for future use be evaluated at the same time in the same or very similar environment. That is why both chemical and non-chemical treatment methodologies identified in the CMT project need to be evaluated concurrently. Failing to do so, will fail to meet the project’s goals, as outlined, above. If following the CMT project, TKPOA develops an IMP that includes pesticide use, such a plan will require a Basin Plan prohibition exemption, separate from that being considered for the TKPOA CMT project. The results from the CMT project will be available for the project review and evaluation process related to the proposed IMP. As noted in the Basin Plan, the Lahontan Water Board has significant discretion in and how it approves pesticide use in surface waters of the Lahontan Region. Additionally, the Lahontan Water Board is under no obligation to grant a prohibition exemption for the proposed IMP simply because it may have granted such an exemption for the TKPOA CMT project.” This plainly contravenes the Basin Plan Exemption Criteria requirements. Both the spirit and the letter of the Plan require that non-chemical methods be shown to be infeasible before chemical treatment methods can be used. The supposed justification for this project that chemical and non-chemical methods must be tested simultaneously could be used for every project and would	

Comment Number	Comment	Commenter
	effectively eviscerate the stringent Plan exemption criteria. The Board's interpretation of the Plan is a significant departure from the letter and intent of the Plan, is unreasonable, and will not likely be upheld by the courts. (See, Monterey Coastkeeper v. State Water Resources Control Bd. (2018) 28 Cal.App.5th 342, 370 ["While we defer to an administrative agency's interpretation of a statute, regulation, or policy involving its area of expertise, we owe no deference to an interpretation that 'flies in the face of the clear language and purpose of the interpreted provision.'"]) 4	
263.02	Comments on the Proposed Resolution for Prohibition Exemption and Proposed NPDES Permit for the Tahoe Keys Aquatic Weeds Control Test Methods Thank you for the opportunity to review and comment on the relevant regulatory documents related to the Tahoe Keys Aquatic Weeds Control Test Methods Project. I commend Water Board staff for completing a detailed permit with many requirements and mitigation measures to limit water quality impacts for a complex and controversial project. I have reviewed the documents and am concerned that the requirements to grant a prohibition exemption have NOT been met. I urge the Water Board to postpone the prohibition exemption and postpone adoption of NPDES permit, or adopt an NPDES Permit that conditions and allows the use of herbicides only after the Tahoe Keys Property Owners Association (TKPOA) complete implementation and evaluation of several of the non-chemical methods proposed within a statistically valid .approach. There is much to learn from a thorough test of these measures prior to using herbicides. Results may inform and improve the strategy for deploying herbicides in only limited areas where the non-chemical methods are ineffective. My specific comments on this concern and permit requirements follow.	Lauri Kemper
263.03	Criterion 1 required for the Prohibition Exemption is NOT met, Where is the evaluation of any of the non-chemical measures currently being considered? The criterion REQUIRES that a finding be made that these non-chemical measures are insufficient for controlling the aquatic weeds. The future long term project proposal depends on these non-chemical measures and, in fact, considers that herbicides may only be necessary one time. The problem with this proposal is that there is no evaluation of the non-chemical measures and no evidence	Lauri Kemper

Comment Number	Comment	Commenter
	provided that they are insufficient in controlling and managing aquatic weeds. I disagree that the testing of herbicides must be done concurrent with evaluating non-chemical methods. Variability exists within the lagoons and will always be difficult to control for comparisons of effectiveness. I don't see that varying the years when testing of different methods are conducted will cause any more statistical noise than the variability of substrate, diversity, and density of aquatic plant species, temperatures, and water levels at any given year. The Water Board does not have the necessary evidence on the insufficiency of the use of nonchemical methods to control and manage	
263.12	The Lahontan Water Board does not have the necessary evidence to make the finding that the use of non-chemical measures are insufficient for managing aquatic weeds at Lake Tahoe. Regardless of measures implemented, management of aquatic weeds will be ongoing just as it is on terrestrial landscapes. And in many instances, management without the use of herbicides is just as effective as when using them. Please consider and respond to these comments.	Lauri Kemper

Category 6 CEQA

Summary Comment 6.1

Any detectable concentration of Herbicides and Degradants (i.e., the very act of discharge) violates the Toxicity and Chemical Constituents water quality objectives and therefore are significant and unavoidable impacts. Significant and unavoidable impacts require statements of overriding considerations. The DEIR/DEIS did not contain statements of overriding considerations.

Furthermore, the DEIR/DEIS states in EH-4 that "the herbicides proposed for testing would not have acute or chronic toxicity to fish or invertebrates, and even minimal dilution would prevent concentrations from exceeding drinking water criteria at drinking water intakes (see EH-3)." This statement is not accurate. As previously stated, chronic toxicity effects on D. magna are noted from concentrations below the RWLs in this draft permit, which are based on USEPA drinking water standards. This statement ignores these toxicity results. The MMRP does not provide any meaningful, effective measures to mitigate this significant impact.

Summary Response 6.1

Please see Summary response 7.1 on why the discharge is not expected to exceed water quality objectives. The conclusion that there will be less than significant impacts to water quality has been unchanged in the EIR. A statement of overriding considerations is not required.

Comment Table 6.1

Comment Number	Comment	Commenter
305.092	Any detectable concentration of Herbicides and Degradants (i.e., the very act of discharge) violates the Toxicity and Chemical Constituents water quality objectives and therefore are significant and unavoidable impacts. Significant and unavoidable impacts require statements of overriding considerations. The DEIR/DEIS did not contain statements of overriding considerations.	Tahoe Area Group of the Sierra Club
305.099	Furthermore, the DEIR/DEIS states in EH-4 that "the herbicides proposed for testing would not have acute or chronic toxicity to fish or invertebrates, and even minimal dilution would prevent concentrations from exceeding drinking water criteria at drinking water intakes (see EH-3)." This statement is not accurate. As previously stated, chronic toxicity effects on D. magna are noted from concentrations below the RWLs in this draft permit, which are based on USEPA drinking water standards. This statement ignores these toxicity results. The MMRP does not provide any meaningful, effective measures to mitigate this significant impact.	Tahoe Area Group of the Sierra Club

Summary Comment 6.2

The draft Environmental Impact Statement identified stormwater as the second leading source of nutrients in the lagoons. If the invasive plants disappeared tomorrow, the existing nutrient levels in stormwater runoff likely would be sufficient to support the reemergence of invasive species.

Summary Response 6.2

The TKPOA implements a nonpoint source water quality management plan to reduce pollutant loading from land-based sources (TKPOA 2018c, TKPOA 2020b). The DEIR/EIS Section 2.6.1 describes this nonpoint source management plan. As illustrated on Figures 3.3.4-16 and 3.3.4-19 and described in Appendix F of the DEIR/EIS, TP and TN loading from stormwater and landscape irrigation were estimated to be small (<13% of TP and 7% of TN) components of overall nutrient loading in the Main Lagoon. As such, even complete elimination of these nutrient loading sources (e.g., replacing grass with synthetic turf) would not be expected to control aquatic weeds or algal blooms in the lagoon. Eliminating all the stormwater input into the Keys lagoons will reduce additional nutrient inputs, but the existing levels of nutrients in Tahoe Keys Lagoons sediments and submerged aquatic vegetation is sufficient to support the reemergence of invasive plants. Notwithstanding, TKPOA has continued to increase their efforts to reduce nutrient loading to the lagoons from landscapes at Tahoe Keys, under the Non-Point Source Water Quality Management Plan of their Waste Discharge Requirements.

The project is designed to test whether Group B (bottom barriers, UV, Diver assisted hand pulling, laminar flow aeration) aquatic weed control methods can be effective in maintaining and improving on the aquatic weed infestation reductions accomplished from testing Group A methods, including aquatic herbicides. Any future decision about long-term management of aquatic weeds could be based on the results of the proposed control methods test, but is not a component of this proposed project, and would be the subject of a separate public and environmental review process (for which public comment would again be taken) before proceeding.

Comment Table 6.2

Comment Number	Comment	Commenter
312.08	6. Order No. R6T-2014-0059 requires the proposed discharger to develop and implement a non-point source water quality management plan. Much has been made about the fact that the existing invasive species are currently the major source of nutrient cycling in the lagoons. However, the draft Environmental Impact Statement identified stormwater as the second leading source of nutrients in the lagoons. If the invasive plants disappeared tomorrow, the existing nutrient levels in stormwater runoff likely would be sufficient to support the reemergence of invasive species.	Dan Askenaize

Summary Comment 6.3

The Draft EIR/EIS stated that testing only non-chemical methods is the environmentally superior alternative Project. This draft permit ignores the identified environmentally superior alternative and instead proposes the use of herbicides.

Summary Response 6.3

The DEIR/EIS describes a reasonable range of alternatives to the Proposed Project that would feasibly attain most of the Proposed Project objectives, but would avoid or lessen any significant environmental impacts. (14 CCR §15126.6).

The alternative of applying non-chemicals methods without the use of herbicides was identified in the DEIR/DEIS as the environmentally superior alternative, and while the Lead Agencies are not obligated to approve the Environmentally Superior Alternative over the Proposed Project, one of the purposes of the EIR is to disclose the impacts of the project and alternatives to the public and to decisionmakers so that the environmental effects of the project are considered when making decisions about whether to proceed with the project. Thus, the DEIR/DEIS includes analysis of the impacts of a range of alternatives.

A public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment. Where the project does not lead to significant impacts, no changes or alterations to the project are required. The potential significant environmental effects from the proposed project are fully analyzed in the DEIR/EIS. The DEIR/EIS identifies mitigation measures that would lessen any significant effects that the project may have on the environment and no unavoidable significant environmental effects have been identified. If the project is approved, these mitigation measures would be required through enforceable terms in the lead agencies decisions/orders. That decision to approve or deny is left to decision makers. The lead agencies will consider findings regarding significant impacts of the proposed project and alternatives, the ability to meet project objectives, and the relation of effects and projected outcomes to standards, plans, thresholds, and long-term environmental goals.

Comment Table 6.3

Comment Number	Comment	Commenter
305.004	The Draft EIR/EIS stated that testing only non-chemical methods is the environmentally superior alternative Project. This draft permit ignores the identified environmentally superior alternative and instead proposes the use of herbicides,	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
174.02	According to the draft environmental document, non-chemical methods are environmentally superior. Please do not allow herbicides for the weed problem in the Tahoe Keys!	Janet Atkinson
321.01	FOWS is concerned that the Water Board aims to permit the use of herbicides contrary to the findings of the environmental analysis that the non-chemical action alternative (Alternative 1) is environmentally superior.	Judith Tornese

Summary Comment 6.4

The option that was put into the considerations of “not doing anything” was a bad use of time, money and energy.

Summary Response 6.4

CEQA requires that an EIR include an analysis of environmental effects if the project is not approved (i.e., the “no action” alternative). The No Action Alternative (see Chapter 3 of the Draft EIR/EIS) evaluates the potential impacts of only utilizing existing weed management strategies. In light of the continued spread of aquatic weeds in Lake Tahoe, the risks of adverse environmental effects were found to be greatest from no action.

Comment Table 6.4

Comment Number	Comment	Commenter
365.06	The option that was put into the considerations of “not doing anything” was a bad use of time, money and energy when that is obviously not even an option! It appeared to me to be a threat that if they aren’t allowed this permit to test aquatic herbicides that nothing will be the other option. The regulatory agencies need to take responsibility for requiring the Keys to resolve their issue immediately and in a sustainable and healthy manor.	Elise Fett

Summary Comment 6.5

Can the Tahoe Keys entrance to the lake be blocked off while the entire Tahoe Keys is treated with herbicides and other methods of weed control?

Summary Response 6.5

As required by CEQA, the DEIR/EIS describes a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Other alternatives, including placing a barrier to isolate the Keys lagoons were discussed in Section 2.7 of the EIR/EIS. Barriers to Lake Tahoe would not achieve the objective of

determining which combination of methods is most effective in reducing and eradicating invasive species, nor would they lessen any significant effects of the project. Such a measure could sequester the weed infestation from the lake as part of a program of aquatic weeds management. However, a barrier would not lessen any significant effects of the test program itself because that program would not have the effect of causing weed fragments to spread to the lake. In addition, a barrier would not serve as an alternative to the proposed project because it is not a treatment of the weeds, thus it would not provide any information on what technologies can be used to manage weeds. The concept of a barrier was considered during the development of the EIR/EIS and was eliminated from further analysis for multiple reasons including: (1) not meeting some project goals and objectives, (e.g., maintain or improve beneficial uses of navigation and recreation), (2) increased potential for harmful algal blooms, and (3) testing of this option is unnecessary.

The proposed application of herbicides would only occur within the Tahoe Keys lagoons and Lake Tallac. The potential for herbicides to migrate into Lake Tahoe and the potential for long-term detectable concentrations of herbicide active ingredients or degradants within the lagoons is evaluated as Issue EH-2 in Section 3.2 in the DEIR/EIS, with a finding that risks of long-term water contamination would be less than significant. Even without expected dilution within the lagoons, available information on the chemicals indicate that they break down and will not be detectable after a few weeks or months. See Issues EH-1,EH-2, EH-3 and Section 3.2 of the EIR-EIS with regard to it being highly unlikely that Lake Tahoe will be adversely affected by the proposed project.

Turbidity curtains would limit the movement of turbidity from test sites toward the West Channel and Lake Tahoe, and double turbidity curtains would limit the migration of herbicide active ingredients and degradants toward the lake. Timing of aquatic herbicide applications is proposed during the spring snow-melt period when Lake Tahoe is filling faster than the Tahoe Keys Lagoons and water flow is from Lake Tahoe into the Tahoe Keys Lagoons. The spring timeframe typically produces stable water inflow into the Tahoe Keys Lagoons helping retain herbicide residues within the lagoon system. The CMT does not rely on dilution to protect water quality in greater Lake Tahoe. Rhodamine dye applied with herbicide products at test sites will be used to track performance of the double turbidity curtain barriers and migration of dissolved chemicals. Sampling and analysis of herbicide active ingredients and degradants outside the double turbidity curtain barriers will be used to verify effectiveness in impeding chemical migration.

Furthermore, boat traffic will be limited during the CMT to those necessary to implement the project. See Summary Response 9.1 and Summary Response 11.10

Comment Table 6.5

Comment Number	Comment	Commenter
370.01	In regards to the Tahoe Keys Weeds Control Methods Test, can the Tahoe Keys entrance to the lake be blocked off while the entire Tahoe Keys is treated with herbicides and other methods of weed control? I did not see that alternative in the papers or articles relating to the weed problem? If it is indeed possible to isolate the Tahoe Keys from the lake, how long would that be necessary and how would you clean out the herbicides and other debris post treatment and prior to re-opening the entrance? I have a sailboat in the Tahoe Keys but I would be willing to give up use for a time if that method would eliminate the weeds. Has this been proposed and debated and I just missed it?	Jeff Miner

Summary Comment 6.6

Herbicides should not be used and I propose you fill in the lagoons with dirt.

Summary Response 6.6

The DEIR/EIS identifies mitigation measures that would lessen any significant effects that the project may have on the environment. No unavoidable significant environmental effects have been identified. The Water Board is not required to select an alternative and may consider project approval after certification of the EIR. Furthermore, It was determined that the restoration of the Tahoe Keys is not within the scope of the purpose and need for the EIR/EIS, which is to test and evaluate the efficacy of different aquatic weeds control methods. Filling the lagoons would not be species selective and would eliminate non-target plant and aquatic animal communities, nor would it maintain or improve the beneficial uses of navigation and recreation. Therefore, a restoration alternative was not included.

Please see summary response 6.3.

Comment Table 6.6

Comment Number	Comment	Commenter
383.02	Thank you for the opportunity to comment on the proposed NPDES Permit for the use of herbicides at Tahoe Keys. I have previously commented on the draft EIR for this project. In my comment letter for the EIR Draft from last summer, I recommended that you not dose the invasive weeds and lagoons with herbicides. In this letter I again recommend that herbicides not be used, and I also propose that you fill in the lagoons with dirt. This will solve the weed issue and cyanobacteria issue in the lagoons permanently.	Trish Friedman

Comment Number	Comment	Commenter
285.03	What of draining the Keys and dredging them out? The Keys are a manmade structure that has caused nothing but harm to Lake Tahoe since they were created. Do they even have a "right" to exist? I think this question should be seriously considered.	Phil Mosby
237.01	In regards to whatever preventative measures and future maintenance for the control of the abundance of invasive aquatic vegetation by the use of growth inhibitors, aquatic herbicide for invasive weeds will only be a CONTROL and to be quite forward can have an everlasting detrimental non reversible effect in such an important and sensitive area . I know for a fact being a ISA Certified Arborist and have used many different "measures" for the so called " invasive undesirable plants" The situation in the Keys is so far advanced due to neglect, improper teqniques and practices that there is only one way that would work. You've heard the drastic suggestive measure that some local people and environmentalist suggesting to "raze the keys and fill it in" . Really I am not that far off from that idea. I have for years thought of a way to bring the Tahoe Keys wetland area almost back to it's natural state. My plan when implemented would go in stages which first would be to drain section's of the inner keys completely, damming of sections and pumping the water out to field tanks to evaporate or pumping the water into storage tankers for road transportation and dumping out of the Tahoe Basin. The homes can stay but that area will sanitized, soils and sand fumigated, treated and then applications of the most environmentally friendly, highly selective, invasive plant species (aquatic and land species) pre emergent control. Filling it back in with the correct wetland fill and reintroduce back into this restored wetland the riparian native plants/grasses and tree species. The "Keys" wetlands would be on a life long monitoring and maintenance program for the upkeep of the restored natural wetlands and native habitat. Having a Wetlands Monitoring Staff full time during the summers with arborists, horticulturists, botanists, plant and soil science college interns and grads. No boats, restaurants and most of all the invasive destructive aquatic plants will be a lesson learned and never to repeat. Respectfully, JPR ISA Certified Arborist, Lake Tahoe 31 year resident	J PR

Comment Number	Comment	Commenter
383.1	If the lagoons don't get filled in and you proceed with this ridiculous herbicide permit you are now putting Lake Tahoe at a greater risk for destruction because the herbicides will kill the weeds and everything else that lives in the lagoons. Your scientists who prepared their reports even admitted that they are not sure if the other plants, animals, and fish will come back after herbicides are applied. If you are going to dose the lagoons, shouldn't you know if the plant and animal life will rebound? In addition, the die off will be massive and will further create food for the cyanobacteria. Not only do they love herbicides, but they love huge nutrient loads even more. And given the lower water levels, drought conditions and a closed water system, the cyanobacteria are just waiting for your next careless move.	Trish Friedman

Category 7 Water Quality Objectives and Exemptions

Summary Comment 7.1

Current draft permit does not contain any of the exemptions required for permitting exceedances of the narrative and numeric water quality objectives which will immediately be exceeded upon discharge of the aquatic herbicides. Exemptions must be included because exceedances of the Basin Plan's narrative and numeric objectives will occur immediately upon herbicide discharge.

Constituent-specific exemptions are not included in the Tentative Order or in the associated permitting documents and draft resolutions. Because the discharge of herbicides violates the Toxicity and Chemical Constituents WQOs, constituent-specific exemptions to waste discharge Prohibitions 1 and 2 in the Basin Plan, Chapter 4.1-1 are required. The MMRP must explain the detailed reasons why no constituent specific exemptions to waste discharge prohibitions 1 and 2 have been included.

The proposed use of aquatic herbicides will produce toxicity to native plants in violation of the Permit Receiving Water Limitations. The Peer Review did not discuss recovery of non-target species such as native plants. The plant die-off from target and non-target species will increase the dead biomass resulting in greater amount of released nutrients likely to produce a massive harmful algal bloom.

Summary Response 7.1

The Lahontan Water Board in establishing the pesticide prohibition and exemption process acknowledged that aquatic pesticides involve an intentional lethal concentration of a chemical. In order to achieve effective treatment, there is a spatial and temporal zone of impact in which water quality and beneficial uses are temporarily not protected. The Lahontan Water Board did not limit the exemption process to non-ONRW waters and indicated that an exemption to the pesticide prohibition could be granted to

discharges to ONRWs. As explained further below, the narrative and numeric water quality objectives are not exceeded, and the Toxicity and Chemical Constituent water quality objectives are not violated by the application of aquatic herbicides.

On January 11, 2009, the Sixth Circuit Court of Appeals confirmed EPA's position that pesticides are not generally pollutants when the chemical pesticide is intentionally applied to water for an intended useful purpose and leave no excess portions after the intended purpose is performed. However, "pesticide residual" are pollutants. (71 Fed. Reg. at 68,487.) Pesticide residues are those portions of the pesticide that remain in the water when the intended purpose of target pest elimination have been completed. (71 Fed. Reg. at 68,487, *National Cotton Council of America v. U.S. E.P.A.* (2009) 553 F.3d 927, 936-936.) Likewise, the Basin Plan acknowledges that compliance with water quality objectives in receiving waters is required at all times during and after the treatment event. However, within the treatment area, the Water Board in establishing the pesticide prohibition and exemption process, acknowledged and authorized impacts to occur during the treatment event (the period during which the aquatic application is actively killing or controlling the target pest within the treatment area) when exemption criteria are satisfied. The Basin Plan indicates that "the time frame in which a project must achieve compliance with water quality objectives with the exception of the biocriteria objectives, will vary by project depending on the type of pesticide proposed, site specific conditions, and temporal extent of treatment event. . . .Slower acting pesticides are effective at lower concentrations less toxic to non-target species, but degrade more slowly and require a longer treatment event before complying with water quality objectives." Consistent with this framework, receiving waters are defined in the draft NPDES permit as waters outside of the treatment area at any time and as inside the treatment area after the treatment event (i.e. 21 days). The toxicity and chemical constituents' objectives would not be exceeded by the application of herbicides to the water. The chemical constituents' objective is a numeric standard for specific chemical constituents and a standard that waters do not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

Narrative toxicity water quality objectives can be the basis for limiting toxicity in waste discharges where a specific pollutant can be identified as causing or contributing to the toxicity but there are no numeric water quality objectives for that specific pollutant. The narrative toxicity objective in the Basin Plan describes a desired water quality goal, but they must be interpreted by the Water Board to determine the basis for limiting a discharge or determining any exceedance of the objective.

Water quality objectives are not exceeded simply by the addition of chemical constituents to waters. Toxicity tests indicate that the herbicides proposed for use in the Tahoe Keys lagoons are not toxic to fish species and the USEPA has determined that the herbicides would not have substantial acute or chronic adverse effects on fish when recommended rates are used (WDOE undated; USEPA 2005a; WDNR 2018). Spring macrophyte surveys would be used as a basis to adjust testing to better target dense beds of target species and avoid native plant communities. As described in Attachment

G in the permit, “Eliminating target invasive aquatic plant species is expected to reduce competition for native species and provide conditions more suitable for native plant recolonization at levels of coverage equal to or greater than pre-treatment conditions” See Summary response 11.2 on why aquatic toxicity is not expected from the discharge. Compliance with the toxicity objective is determined by the use of a sensitive indicator organism, and determination of the acceptable level of toxicity that would result from the chemical constituent. The most sensitive receptor for the proposed herbicides and their residuals is associated with human activities. And consistent with the chemical constituent objective, receiving waters cannot contain concentrations of Endothall in excess of the MCL. Furthermore, as indicated in Summary Response 13.2 , the likelihood of ingestion is extremely low.

Pesticides are generally controlled by U.S. EPA and the California Department of Pesticide Regulation (DPR) through the pesticide registration process. U.S. EPA and DPR evaluate data submitted by registrants and review aquatic herbicide labels to ensure that a product used according to label instructions will cause no harm or adverse impact on non-target organisms that cannot be reduced or mitigated with protective measures or use restrictions. Many of the label directions constitute BMPs to protect water quality and beneficial uses.

The NPDES permit requires the discharger to follow label directions to implement BMPs to minimize the area and duration of impacts caused by the application of aquatic herbicides in the treatment area and to allow for restoration of water quality and protection of beneficial use of the receiving water to pre-application quality following completion of an application event. The discharger will also have to meet receiving water limitations. No exception to complying with water quality standards is needed and exemption to the Regionwide Prohibition #1 in section 4.1 of the Basin Plan is not required.

As discussed in section III.C.8 of Attachment F of the NPDES permit, the Regional Board developed a bi-state Lake Tahoe Total Maximum Daily Load (TMDL) to identify the pollutants responsible for deep water transparency decline. The discharge is not expected to cause further degradation or pollution of Lake Tahoe’s deep water transparency. Therefore, an exemption to Regionwide Prohibition #2 in section 4.1 of the Basin Plan is not required.

Comment Table 7.1

Comment Number	Comment	Commenter
305.012	In addition to the current draft permit’s not satisfying the above exemption criteria, the current draft permit does not contain any of the exemptions required for permitting exceedances of the narrative and numeric water quality objectives which will immediately be exceeded upon discharge of the aquatic herbicides. The Basin Plan, on page 4.1-7, states: “Exemptions to the prohibition on violating	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	narrative or numeric water quality objectives may be granted for specific water quality objectives." In addition, the Basin Plan Amendment of 2011, which approved aquatic pesticide discharge exemption criteria in the Basin Plan, included a substitute environmental document containing the following language: "By definition, aquatic pesticides must be applied at concentrations that are toxic to certain aquatic organisms. Therefore, for certain aquatic pesticides, target concentrations needed for effective pest control within the treatment area may temporarily exceed narrative or numeric water quality objectives contained in the Basin Plan. Specific water quality objectives that may be exceeded include: • Toxicity • Chemical Constituents (in surface and ground waters) • Oil and Grease • Dissolved Oxygen • Floating Materials • Settable Materials • Suspended Materials • Nondegradation of Aquatic Communities and Populations When an exemption to the prohibition on pesticide use in water is granted, pesticides are discharged into water and additional water quality objectives, such as those listed above, may be exceeded. Consequently, the Water Board may also need to grant the pesticide discharger constituent-specific exemptions to waste discharge prohibitions 1 and 2 (Basin Plan, Chapter 4.1-1). These prohibitions prohibit the discharge of waste which causes violation of basin plan narrative and numeric objectives, respectively. Exemptions to these prohibitions would be short-term or seasonal and would only apply to the treatment area during the treatment event* (or project duration or length*). The intent is to limit exceedances of water quality objectives to the shortest possible time needed for project effectiveness. Upon project completion, water quality would be restored within the treatment area and suitable to protect beneficial uses." No such constituent-specific exemptions are included in this Tentative Order or in the associated permitting documents and draft resolutions. Exemptions must be included because exceedances of the Basin Plan's narrative and numeric objectives will occur immediately upon herbicide discharge.	
305.093	Furthermore, because the discharge of herbicides violates the Toxicity and Chemical Constituents WQOs, constituent-specific exemptions to waste discharge prohibitions 1 and 2 in the Basin Plan, Chapter 4.1-1 are required. As stated in the Staff Report and Substitute Environmental Documentation for the 2011 Basin Plan amendment: "When an exemption to the prohibition on pesticide use in water is granted, pesticides are discharged into water and additional	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	water quality objectives, such as those listed above [including Toxicity and Chemical Constituents], may be exceeded. Consequently, the Water Board may also need to grant the pesticide discharger constituent-specific exemptions to waste discharge prohibitions 1 and 2 (Basin Plan, Chapter 4.1-1).” The permitting documents released on September 15, 2021 do not include exemptions to these waste discharge prohibitions for violation of water quality objectives. The MMRP must explain the detailed reasons why no constituent specific exemptions to waste discharge prohibitions 1 and 2 have been included.	
346.09	The proposed Permit contains a Receiving Water Limitation for Toxicity which requires that: “All waters must be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.” (Emphasis added). Obviously, the use of aquatic herbicides will cause toxicity to plants including native plants. While the above cited Peer Review discussed recovery of aquatic life, it does not discuss recovery of native plant life. The proposed use of aquatic herbicides will produce toxicity to native plants in violation of the Permit Receiving Water Limitations.	Richard McHenry

Category 8 MRP and MMRP

Summary Comment 8.1

The NPDES permit for the CMT project should be as stringent as a permit satisfying the requirements of the State Board's General Permit (GP).

There is too much uncertainty in the data collected because the Monitoring and Reporting Program (MRP) in the draft NPDES does not require an adequate number of monitoring points both inside and outside of the treatment area, and the monitoring frequency should be increased to at least daily monitoring. The current draft permit requires a minimum of two post-event samples, which is an insufficient number of samples to ensure that this first ever use of herbicides in Lake Tahoe is not causing pollution that violates WQOs. The number of monitoring locations is also inadequate to comply with antidegradation regulations.

More parameters must be sampled, and actual real-time or continuous monitoring must be required. The set of parameters to be monitored should include electrical conductivity, toxicity (acute and chronic), total dissolved solids (TDS) and chlorophyll a, for the algal growth potential water quality objective (WQO), suspended sediment, total nitrogen and phosphorus (for the Biostimulatory Substances WQO). Sampling of these parameters and all of the WQOs listed in the Basin Plan should be required for verification that beneficial uses are protected.

The specifics of the sampling protocols should be specified more clearly and unambiguously in the permit, be consistent with the MMRP Order, and all plans should be provided to the public for review and comment a minimum of 90 days prior to the discharge.

Section II.A.1 of the MRP states that background samples must be collected "just prior to (within 7 days in advance of) the application event." What is the justification for allowing sampling up to 7 days before the application event when the State Board's GP requires background samples be collected no earlier than "up to 24 hours in advance of" the application event?

The post-event monitoring requirements of section II.A.3, that samples be collected "at the treatment area" and at "receiving water locations specified in the Discharger's APAP and LMCAP" within seven (7) days after the application event, are not sufficiently rigorous.

Section II.A.2 of the MRP requires event monitoring "outside the treatment areas" rather than "immediately outside of the treatment area" as in the State Board's General Permit. The permit should specify "immediately outside of the treatment area" as the State Board's GP does.

Section II.B.5 of the MRP should specify a minimum of three (3) surface water monitoring locations and three (3) sediment monitoring locations, for the reasons cited previously. Section IV.B of Attachment E requires that sediment be sampled only twice in

each treatment area: a background sediment sample and a post-event sediment sample "21 days after application or later. This is inconsistent with Footnote 4 following Table E-4, which states "To address variability in sediment quality, a minimum of two samples from each monitoring location for each monitoring event (background, event and post-event) must be analyzed and reported." Which requirement is the correct requirement?? The sediment should be sampled in all monitoring locations at least weekly until no detectable levels of herbicide or residue are detected.

Summary Response 8.1

A monitoring and reporting program is a required component of the NPDES permit. In addition, a description of monitoring to be implemented was included in the Aquatic Pesticide Application Plan (APAP) for the CMT submitted by TKPOA. The APAP provides a description of the monitoring that aligns with the EIR/EIS and Basin plan requirements. The monitoring to be implemented will assess the effects of treatment on surface and ground waters, and on bottom sediments.

The monitoring and reporting that will be required includes: (1) pre-project monitoring to determine pre-project conditions, (2) monitoring during project implementation including visual observation of dye tracer, contingency monitoring, and water quality monitoring to determine aquatic herbicide migration and if applicable mitigation measures must be implemented; (3) post-project monitoring to determine the effects from the CMT treatments and post-project recovery.

The project monitoring program also includes pre- and post-project sampling of water, sediment, and biota to determine if toxicity persists due to project implementation. Pre-project and post-project monitoring will include testing for the presence of aquatic pesticides, and monitoring the water quality parameters of pH, dissolved oxygen, temperature, and turbidity. Rhodamine WT dye detections will be used to determine the possible migration of aquatic pesticides. Water quality monitoring and visual observation could trigger additional water quality monitoring and will be used to determine whether to implement applicable mitigation measures. The dissolved oxygen water quality parameter will be the lead indicator in determining when and if aeration should be implemented.

The NPDES permit for the CMT project was developed in part from applicable elements of the Statewide National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, Order 2016-0073-EXEC (State Water Board GP) and does not emulate the State Water Board GP. The monitoring requirements in the NPDES permit for the CMT project were developed through participation with multiple stakeholders and partner Lead Agency, TRPA, over a four-year process that included extensive public outreach and participation.

The commenters have not pointed to any authority suggesting that the monitoring would be invalid. Relevant authority indicates that the permitting agency has wide discretion in developing and imposing monitoring requirements. (*Coastal Environmental Rights*

Foundation v. California Regional Water Quality Control Board, (2017) 12 Cal.App.5th 178, 182.) The NPDES permit contains monitoring provisions sufficient to ensure compliance with the terms of a permit. The NPDES permit specifies the monitoring type, interval, and frequency of the monitoring. The monitoring frequency is sufficient to characterize the effluent quality and to detect events of noncompliance. In addition, NPDES regulation do not specify the exact monitoring location, and the Lahontan Water Board has determined that monitoring locations specified in the NPDEs permit would be appropriate to characterize the effluent quality and to detect events of noncompliance. The Monitoring locations and number provide a representative sample of the discharge into the receiving water.

The NPDES permit for the CMT project includes Background Monitoring, Event Monitoring, and Post-Event Monitoring. Sampling will be completed at a number of locations throughout the Tahoe Keys lagoons and Lake Tallac, including each test site. Multiple samples at each test site were not considered necessary since variability will be captured by the number of sites. The NPDES permit for the CMT project also includes Contingency Monitoring Requirements to demonstrate compliance with receiving water limitations at monitoring stations in the Main Lagoon (West Channel) and Lake Tahoe. Based on the application of a single discrete discharge of aquatic herbicides and the size of the proposed herbicide treatment areas, a minimum of one sample per treatment area is sufficient to provide information to determine compliance with the NPDES permit. The MMRP requires additional field fluorometer testing for the rhodamine WT dye on a more frequent basis as an early indicator of potential aquatic herbicide migration. Background samples will be collected just prior to (within 7 days in advance of) the application event to allow sampling crews adequate time to collect background samples from all treatment areas prior to the application event.

The DEIR/DEIS describes Real-Time Water Quality Monitoring as water quality monitoring with portable instrumentation that will be performed during each test activity to determine if any adjustments to the methods or pace of work is necessary to maintain compliance with water quality standards. As described in the MMRP and APAP, water quality monitoring may be conducted calibrated using hand-held field meters, multiparameter meters, and continuous water quality data logging devices.

Thank you for your comment regarding Footnote 4 following Table E-4, the following text of the footnote has been revised : “To address variability in sediment quality, results from a minimum of two samples from each monitoring location for each monitoring event (the background, event and post-event) monitoring must be analyzed and reported.” The revised language is as follows: “To address variability in sediment quality, results from a minimum of two samples from each monitoring location for the background and post-event monitoring must be analyzed and reported.”

For comments regarding the availability of plans for public review and comment, see response to comments Summary Responses 3.1 and 3.2.

For comments regarding WQOs and the narrative toxicity objective, see response to comments Summary Response 6.1.

For comments regarding receiving water limitations and acute and chronic toxicity, see response to comments Summary Responses 11.1 and 11.2.

For comments regarding the adequacy of the MRP to support the antidegradation analysis included in the NPDES permit, see response to comments Summary Response 4.6.

Comment Table 8.1

Comment Number	Comment	Commenter
324.04	The posted documents do not provide justifications of many of the requirements in the draft permitting documents. The monitoring requirements are a conspicuous example of requirements for which justifications are not provided. The posted documents do not contain justifications of the adequacy of the infrequent monitoring and the very limited number of monitoring locations both inside and outside treatment sites, and do not justify not monitoring many essential water quality parameters for which WQOs have been established.	John Moore
305.02	Attachment E states: a “minimum of one monitoring location must be located in each treatment area that receives an aquatic herbicide, and Rhodamine WT application.” Also, Attachment E requires only one monitoring location in the receiving water between two herbicide treatment areas in the lagoons and allows that one monitoring location to be distant from both treatment areas (see the CMT NPDES Monitoring Map). Even the State Board’s GP, despite its very lax requirements, requires the event monitoring samples be collected “immediately outside of the treatment area.” Because only one monitoring location is required between two herbicide treatment areas, only nine receiving water monitoring locations are required in the lagoons, where there are twelve herbicide treatment areas. There should be three monitoring locations in each herbicide treatment area and, if there is receiving water outside an end of the treatment area, three monitoring locations in the receiving water immediately outside the treatment area. In addition, at least one of these three monitoring locations within the treatment area should be in the application area inside the treatment area. For further remarks, see comment on Attachment C.	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
305.022	The set of parameters to be monitored is also incomplete; sampling of electrical conductivity, toxicity (acute and chronic), total nitrogen, total dissolved solids (TDS) and chlorophyll a (for the algal growth potential WQO) is not required in the draft permit. Sampling of these parameters and all of the WQOs listed in the Basin Plan should be required for verification that beneficial uses are protected. (See specific comment #2.) In a 2016 study, limnological variables such as pH, conductivity, and TDS were shown to impact herbicide performance with lakes that were lower in pH, TDS, and conductivity exhibiting lower levels of treatment success2. The only parameters that the current Order requires be monitored are dissolved oxygen (DO), temperature and pH. Even the State Board's GP for discharges of aquatic pesticides requires sampling of more parameters (e.g., electrical conductivity).	Tahoe Area Group of the Sierra Club
305.023	The Basin Plan states: "Project implementation, with its associated control measures and compliance monitoring, must demonstrate compliance with Basin Plan Water Quality objectives, effluent limitations, and receiving water limitations, which must be maintained (a) in the receiving water at all times during and after the treatment event, and (b) within the treatment area after completion of the aquatic pesticide treatment event." (Page 4.1-6 of the Basin Plan, emphasis added.) The proposed monitoring plan is insufficient to ensure compliance with this requirement. Event monitoring and post-event monitoring are the minimum monitoring required by the State Board's GP. If this Project were truly a "test" as purported, there would be more monitoring sites and more frequent monitoring than is proposed and monitoring of all of the WQOs in the Basin Plan for Lake Tahoe would be required.	Tahoe Area Group of the Sierra Club
305.024	The State Board's GP also states that the MRP must be designed to address two key questions: "Question No. 1: Does the residual algaecides and aquatic herbicides discharge cause an exceedance of receiving water limitations? Question No. 2: Does the discharge of residual algaecides and aquatic herbicides, including active ingredients, inert ingredients, and degradation byproducts, in any combination cause or contribute to an exceedance of the "no toxics in toxic amount" narrative toxicity objective?" Considering that the requested permit is not a general permit, but a specific permit for a first-time discharge of herbicides to an ONRW, this permit should be much more stringent than a permit satisfying the requirements of the State Board's GP.	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	Lahontan staff should at least take note of these questions and determine whether this permit adequately addresses them. We assert that the current draft permit's MRP requires too few monitoring locations, too infrequent sampling, and the sampling of too few parameters to ensure that the above questions can be answered.	
305.027	The minimal amount of monitoring required by this draft permit will likely not capture any resulting exceedances, and the exceedances will not be appropriately responded to. Assurances that exceedances will be monitored appropriately require that this draft permit's monitoring requirements be completely revised; the minimum numbers of samples and frequencies of monitoring must be increased, more parameters must be sampled, and actual real-time or continuous monitoring must be required as specified in the above comments.	Tahoe Area Group of the Sierra Club
305.032	The WQOs listed in section V.A.2 should be included in the monitoring plan, including both total nitrogen and phosphorus (for the Biostimulatory Substances WQO), suspended sediment, toxicity, chlorophyll a (for the Algal Growth Potential WQO), and all other the parameters listed in Basin Plan for the Lahontan Region and specifically for Lake Tahoe (see the list in specific comment #2). Acute and chronic toxicity monitoring should be required for both the treatment area and receiving water monitoring.	Tahoe Area Group of the Sierra Club
305.04	There should be a minimum of three (3) monitoring locations immediately outside each treatment site in each of the 17 receiving water areas adjacent to the treatment sites. Therefore, there should be a total of 51 (3x17) monitoring locations within the lagoons, 3 in each of the following receiving water areas: immediately south of Site 1, immediately north of Site 2, immediately east and west of site 10, immediately north and south of site 11, immediately west of site 5, immediately northwest and south of site 12, immediately west of site 3, immediately west and north of site 13, immediately south of site 14, immediately north and east of site 15, immediately west of site 8, and immediately west of site 9.	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
305.042	Section II.A.1, 2 and 3 of the MRP refer to "the Discharger's APAP and LMCAP" for specifications on where and when samples are required to be taken. The specifics of the sampling protocols should be specified more clearly and unambiguously in the permit, be consistent with the MMRP Order, and all plans should be provided to the public for review and comment a minimum of 90 days prior to the discharge. Section II.A.1 of the MRP states that background samples must be collected "just prior to (within 7 days in advance of) the application event." What is the justification for allowing sampling up to 7 days before the application event when the State Board's GP requires that background samples be collected no earlier than "up to 24 hours in advance of" the application event?	Tahoe Area Group of the Sierra Club
305.045	The number of monitoring locations in treatment areas specified in Section II.B of the MRP is very inadequate. The sizes of the treatment areas are about 1.0 to 1.5 acres (about 43,000 to 65,000 square feet). The MRP does not discuss the possible variability in parameter concentrations over such large areas with shapes, complex irregular edges (created by docks in the Tahoe Keys lagoons), depths, wind exposure, etc., similar to the Tahoe Keys lagoons, and how these factors may influence the mixing which reduces variability of concentrations. If there is any information about typical variability, the MRP does not cite it. Studies which attempt to develop general rules for reliably estimating the typical averages and variabilities of concentrations within waterbodies resembling the treatment areas would presumably require repeated sampling at many locations in the waterbodies. Assertions that sampling at one location in such large areas is sufficient to yield sufficiently reliable information about concentrations in the areas defy common sense. Sampling at a single monitoring station in a treatment area yields zero information about the variability of the sampled parameters within the treatment area. Sampling at a single monitoring station also provides no insurance against sampling and analysis errors10.	Tahoe Area Group of the Sierra Club
305.046	Three monitoring locations are frequently recommended, an attempt to take into account both how much accuracy is needed and sampling and analysis costs. Sampling at three monitoring locations within treatment areas may still be inadequate, but is vastly superior to sampling at a single location. Location factors affecting concentrations in treatment areas may include distances from the sides and ends of the treatment area. It is evident that three sampling	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	locations cannot provide information about the effects of multiple factors or much information about the effects of any single factor, but the chosen sampling locations should not be nearly identical with respect to any of the obvious factors. The current draft permit requires an insufficient number of monitoring locations to ensure that this first ever use of herbicides in Lake Tahoe is not causing pollution that violates WQOs. The number of monitoring locations is also inadequate to comply with antidegradation regulations.	
305.047	Section II.B.2 of the MRP should read "Receiving water monitoring locations must be located immediately outside of the treatment area boundary…" These locations should be specified in this permit. The next sentence should specify six (6) instead of 2 monitoring locations if the treatment area has receiving waters on each side, for the same reason as cited above. The last sentence in this section, which requires only ONE sampling location for receiving waters located between two treatment areas, is far too lenient, considering the requirement in the State Board's GP that monitoring occur immediately outside the treatment area and considering the comments made previously on section II.B. Therefore, this sentence should state that six (6) samples be taken in receiving waters located between two treatment areas, three (3) immediately outside each of the two treatment areas that bound the receiving water.	Tahoe Area Group of the Sierra Club
305.049	Section II.B.5 of the MRP should specify a minimum of three (3) surface water monitoring locations and three (3) sediment monitoring locations, for the reasons cited previously.	Tahoe Area Group of the Sierra Club
305.054	Section IV.B of Attachment E requires that sediment be sampled only twice in each treatment area: a background sediment sample and a post-event sediment sample "21 days after application or later. This is inconsistent with Footnote 4 following Table E-4, which states "To address variability in sediment quality, a minimum of two samples from each monitoring location for each monitoring event (background, event and post-event) must be analyzed and reported." Which requirement is the correct requirement?? Also, there should at least be a requirement that, if the parameters listed in Table E-4 are detected, weekly sampling continues until herbicide residuals are no longer detected. The sentence "sediment samples must be collected 21 days after application" should end at that phrase. The meaning of the remaining part of the sentence, "or at a date no later than	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	required to analyze and provide a Sediment Monitoring Report with the two (2) year post-biological monitoring report and certification", is nebulous and allows uncertainty about when sampling should occur. Also, what is the justification for sampling 21 days after application and requiring only 2 samples for each monitoring event? The sediment should be sampled in all monitoring locations at least weekly until no detectable levels of herbicide or residue are detected. The sediment should be sampled as close to the application date as would provide meaningful data, not up to two years from the application of herbicides, particularly to support claims that no long-term degradation will occur as a result of this project.	
305.076	The MRP goals of section VI.A cannot be attained by the minimal monitoring that is currently proposed.	Tahoe Area Group of the Sierra Club

Summary Comment 8.2

The RWLs in Table 4 should be the method detection limits, not drinking water MCLs. Also, requiring a second sample only after maximum contaminant or drinking water levels of 100 and 400 ug/L for endothall and triclopyr, respectively, are reached is not protective of beneficial uses.

The RWLs in the main body of the draft permit require respective instantaneous maximums of 100 ug/L and 400 ug/L for the two herbicides, but Table E-1 states that a composite is required. The monitoring frequencies in Table E-1 are insufficient. Table E-1 should include all the parameters cited in the comment on section III.A for the reasons cited there.

The lack of monitoring on a daily basis is clearly an allowance to exceed permit RWLs for the period of time between samples. This allowance constitutes a "mixing zone" but yet the draft permit does not fulfill any of the mixing zone policy requirements stated in the Basin Plan starting on page 4-2.

Summary Response 8.2

For the response regarding receiving water limitations (RWLs) required for the project and acute and chronic toxicity, see Summary Response 11.1.

Regarding water quality objectives (WQOs) for the project, see Summary Response 7.1.

Referencing the instantaneous maximum limits included in the NPDES permit for Endothall at 100 ug/L and for Triclopyr at 400 ug/L against composited samples as described in Table E-1 is consistent with the NPDES Permit Writers' Manual, Appendix

A. An Instantaneous Maximum Limit is the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event (USEPA, 2010). The following definition was added to Attachment A of the permit in response to this comment:

"**Instantaneous Maximum Limit.** The maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event."

For comments suggesting the allowance of a "mixing zone", see Summary Response 4.3.

For further response on why the monitoring is comprehensive and will detect water quality changes, see Summary Response 8.1 regarding the MRP and Summary Response 8.8 regarding the MMRP.

Regarding boat access to curtained off areas during CMT implementation, see Summary Response 11.10.

Comment Table 8.2

Comment Number	Comment	Commenter
305.019	Monitoring and Reporting: The Basin Plan requires that an NPDES permit include specification of the Monitoring and Reporting Program which will collect, analyze, and report the data needed to verify the Project's compliance with receiving water limitations (RWLs) and water quality objectives (WQOs) and protections of beneficial uses. The Monitoring and Reporting Program (MRP) in the draft NPDES is woefully deficient in every respect: not frequent enough monitoring, too few monitoring locations both inside and outside treatment sites, and many essential water quality parameters not sampled. 12	Tahoe Area Group of the Sierra Club
305.021	The number of samples required is also inadequate. Only one sample is required from each monitoring location for background and event monitoring, and only "two samples from each monitoring location for post-event monitoring events collected no more than seven (7) days apart," the first one of which is to be collected "within seven (7) days after the application event." The lack of monitoring on a daily basis is clearly an allowance to exceed permit RWLs for the period of time between samples. This allowance constitutes a "mixing zone" but yet the draft permit does not fulfill any of the mixing zone policy requirements stated in the Basin Plan starting on page 4-2. These requirements are completely inadequate to verify compliance with the Discharge Prohibitions in Section III.B, C, D, E and N. They are also completely inadequate because of the possibility of	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	sampling errors and biases. Post-treatment samples, both inside and outside treatment areas, should be taken at least daily, if not multiple times per day or in “real-time” as stated would be required in the MMRP. As the State Board’s General Permit (GP) states, “The more limited the amount of test data available, the larger the uncertainty.”	
305.031	Section V states: “Within the treatment area, the discharger must demonstrate compliance with receiving water limitations within 21 days after the application event.” Compliance with the above-cited requirement in the draft permit appears to be based on two consecutive samples, taken no more than a week apart, that both result in herbicide levels less than the MCLs for drinking water (not just whether it is detected). Compliance is also only based on one sampling location per treatment area. First, a single sample can easily be subjected to sampling bias and/or error. Certainly, considering the lack of attention and responsiveness to addressing the issue of boats going in and out of the treatment area, there should be more than two samples required as well as more sampling locations than just one per treatment area. Second, requiring a second sample only after maximum contaminant or drinking water levels of 100 and 400 ug/l for endothall and triclopyr, respectively, are reached is not protective of beneficial uses (see specific comment 3). Third, the RWLs in the main body of the draft permit require respective instantaneous maximums of 100 ug/l and 400 ug/l for the two herbicides, but Table E-1 states that a composite is required. EPA recommends that instantaneous limits be developed for pollutants that cannot be composited6. Furthermore, later in the draft permit, section III.A. of Attachment E states: “The discharger must demonstrate compliance with receiving water limitations at all times outside of the treatment areas.” Yet, only one sample is required, and more samples are required only after maximum contaminant or drinking water levels for the herbicides are reached. The additional samples are required only every 7 days until compliance is achieved. Post-event monitoring should be on a daily basis. As stated in the General Comments, but warrants repeating, the lack of monitoring on a daily basis is clearly an allowance to exceed permit RWLs for the period of time between samples. This allowance constitutes a “mixing zone” but yet the draft permit does not fulfill any of the mixing zone policy requirements stated in the Basin Plan starting on page 4-2. Sampling requirements in this draft	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	permit are woefully inadequate for this first-time discharge of herbicides to an Outstanding National Resource Water and even more inadequate for a “test” project. The discharger certainly cannot possibly determine compliance with receiving water limitations “at all times” if monitoring satisfies only these very minimal requirements. There should be a minimum of 3 samples within the treatment area and 3 in each receiving water area immediately outside a treatment area. The RWLs in Table 4 should be the method detection limits, not drinking water MCLs. The monitored parameters should include all the WQOs listed in specific comment #2 and be tested daily and, for some parameters, continuously as stated would be the case in the DEIR/DEIS.	
305.043	Section II.A.2 of the MRP requires event monitoring “outside the treatment areas” rather than “immediately outside of the treatment area” as in the State Board’s GP. The event monitoring is far too critical to allow the Discharger complete discretion over the monitoring locations. The permit should specify “immediately outside of the treatment area” as the State Board’s GP does. The language in this section also requires event monitoring “samples must be collected at receiving water monitoring locations outside of the treatment areas specified in the Discharger’s APAP and LMCAP immediately after the application event, but after sufficient time has elapsed such that treated water could have exited the treatment area.” The potential for mixing of treatment area waters and receiving waters due to entering and exiting the curtained-off treatment area is ignored in this permit and in other documents. Additionally, only one treatment area is surrounded by turbidity curtains. There should be monitoring immediately outside the treatment area and immediately after any breach in the curtained treatment area. Furthermore, this monitoring should be daily with at least 3 sampling locations required immediately adjacent to the treatment area for a minimum of 30 days to ensure that the concentrations in receiving waters are in compliance with RWLs at all times during and after treatment events as required in Chapter 4 of the Basin Plan9. The RWLs should also be set to the MDLs for the chemicals, not to higher levels, which are not protective of beneficial uses, as stated in the comment on section V.A.1.	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
305.044	The post-event monitoring requirements of section II.A.3, that samples be collected “at the treatment area” and at “receiving water locations specified in the Discharger’s APAP and LMCAP” within seven (7) days after the application event, are not sufficiently rigorous. First, “at the treatment area” is far too vague and ambiguous. Is the water supposed to be sampled within the treatment area, within the application area inside the treatment area, outside the application area but still within the treatment area, or outside the treatment area? Second, sampling within 7 days of application is far too infrequent. Post-monitoring sampling should be sufficient to accurately determine concentrations of all pollutants with RWLs and all concentrations of herbicides and their breakdown products within the two zones immediately following the event and daily until no residual herbicides are detected in the application area. The current draft permit requires a minimum of two post-event samples, which is an insufficient number of samples to ensure that this first ever use of herbicides in Lake Tahoe is not causing pollution that violates WQOs. It is also inadequate to comply with antidegradation regulations.	Tahoe Area Group of the Sierra Club
305.05	Section III.A states that compliance with the RWLs “will be determined by assessment of the results of the event and post-event monitoring” and that TKPOA “must demonstrate compliance with receiving water limitations at all times outside the treatment areas”. However, the minimal number of parameters required to be monitored (not all of the parameters in the Basin Plan are in the permit), the minimal number of monitoring locations, the fact that these locations are not “immediately” outside the treatment area, and the minimal frequency of monitoring (2 samples a maximum of 7 days apart) are all insufficient for determination of compliance “at all times” outside the treatment areas. The permit needs to add the following monitoring requirements: Additional parameters, including chronic and acute toxicity testing, chlorophyll-a, electrical conductivity, suspended sediment, transparency, total dissolved solids, chloride, sulfate, boron, total nitrogen, total phosphorus, total iron, floating materials, oil and grease, taste and odor. b. Three (3) monitoring locations immediately adjacent to each treatment area and on either side of the treatment area if applicable for a total of 51 monitoring locations inside the turbidity curtains and nine (9) outside the turbidity curtains in the lagoons (see the comment on Attachment C for more precise specification of these locations). The permit should	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	require continuous monitoring as stated in the DEIR/DEIS and as required for antidegradation purposes, instead of sampling at intervals of up to 7 days.	
305.051	Table E-1 should include all the parameters cited in the comment on section III.A for the reasons cited there.	Tahoe Area Group of the Sierra Club
305.052	The monitoring frequencies in Table E-1 are insufficient (see comment on section III.A).	Tahoe Area Group of the Sierra Club

Summary Comment 8.3

Attachment E, Monitoring and Reporting Program (MRP), section I.C regarding laboratory certification is inadequate and vague, particularly with respect to quality assurance/quality control. The requirements of section I.C should be at least as stringent as the State Board's GP, which are: "All laboratory analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with California Water Code section 13176. Laboratories that perform sample analyses shall be identified in all monitoring reports. The Discharger shall institute a Quality Assurance-Quality Control Program for any onsite field measurements such as electric conductivity, pH, turbidity, and temperature. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by the State Water Board and the appropriate Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to United States Environmental Protection Agency (U.S. EPA) guidelines or to procedures approved by the State Water Board and the appropriate Regional Water Board."

Summary Response 8.3

As stated in the NPDES permit, Attachment E Section I. General Monitoring Provisions, laboratories analyzing monitoring samples shall be certified by the State Water Board, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports. In the event a certified laboratory is not available to the Discharger, analyses performed by a non-certified laboratory or using field test kits will be accepted provided that a Quality Assurance/Quality Control Program (QA/QC) is instituted by the laboratory and approved by the Executive Officer. Documentation of QA/QC protocols and adherence to the protocols must be kept in the laboratory or at the site for field test kits and must be available for inspection by Lahontan Water Board staff. The QA/QC Program must conform to State Water Board and USEPA guidelines or to procedures approved by the Lahontan Water Board.

Comment Table 8.3

Comment Number	Comment	Commenter
305.041	Attachment E, Monitoring and Reporting Program (MRP), section I.C regarding laboratory certification is inadequate and vague, particularly with respect to quality assurance/quality control. The requirements of section I.C should be at least as stringent as the State Board's GP, which are: "All laboratory analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with California Water Code section 13176. Laboratories that perform sample analyses shall be identified in all monitoring reports. The Discharger shall institute a Quality Assurance-Quality Control Program for any onsite field measurements such as electric conductivity, pH, turbidity, and temperature. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by the State Water Board and the appropriate Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to United States Environmental Protection Agency (U.S. EPA) guidelines or to procedures approved by the State Water Board and the appropriate Regional Water Board."	Tahoe Area Group of the Sierra Club

Summary Comment 8.4

More turbidity curtains should be installed around the many treatment areas. Additionally, only one treatment area is surrounded by turbidity curtains. The potential for mixing of treatment area waters and receiving waters due to entering and exiting the curtained-off treatment area is ignored in this permit and in other documents.

Boats will enter and exit the curtained-off areas to apply herbicides and perform monitoring and other tasks. There is no discussion in EH-3g or elsewhere in the permit of how mixing of waters inside and outside the curtained-off areas when boats enter and exit will be prevented. Turbidity curtains notoriously fail to completely prevent mixing of waters behind the curtains with waters outside the curtains, particularly if there are stormwater outlets behind the curtains.

Monitoring of aluminum during and after installation and removal of the turbidity curtains should be required because aluminum is extremely toxic to aquatic organisms.

The first paragraph of Section 2.0 of the MMRP states that turbidity monitoring will be done in conjunction with herbicide application, installation of turbidity curtains, installation of Laminar Flow Aeration (LFA) or other aeration devices, in the use of lanthanum modified clay, and the installation and removal of bottom barriers," but does not include any specification of the monitoring, except for the installation and removal of turbidity curtains.

Summary Response 8.4

Regarding the number of turbidity curtains, as indicated in the FEIR/FEIS, double turbidity curtains will be used as barriers to block the movement of dissolved herbicide chemicals from test treatment areas into receiving waters and prevent the movement of the chemicals toward the channel connecting the West Lagoon to Lake Tahoe. Double turbidity curtains will be placed around groups of herbicide treatment areas to prevent herbicide active ingredients and degradation chemicals from moving outside of treatment areas towards Lake Tahoe.

Double turbidity curtains were tested in the West Lagoon as part of a 2016 rhodamine dye study (Anderson 2016). The study concluded that the double curtain containment system was able to retain 98 to 99% of dissolved materials (e.g., herbicides) for at least 12 to 14 days. Wind shifts were experienced during the test and Anderson (2016) found that wind had a lessor influence than net water movement on the transport of dissolved dye. Compared to many turbidity curtain applications, the West Lagoon channels are quiescent waters with limited circulation. During the spring when herbicide tests are proposed, net water movement is from Lake Tahoe toward the back of the lagoon while the lake level is rising from snowmelt runoff. High pressures from stormwater inflows would not be expected because runoff entering the lagoon is limited to small land areas between the lagoon channels.

The aluminum in the lagoons resides predominantly in the sediments and the potential for exceeding aluminum criteria in the water would occur only during sediment disturbance, indicated by high levels of turbidity. The NDPDES permit requires measures to minimize sediment disturbance when installing and removing barrier curtains, installing and removing aeration diffusers and any other Project activities that disturb bed sediments in the Tahoe Keys Lagoons and Lake Tallac. Real-time turbidity monitoring would be used to detect sediment disturbing activities and change methods or the rate of work whenever turbidity reached trigger levels, similar to existing WDR permit conditions. As described in the EIR/EIS the Proposed Project would cause only short-term increases in turbidity associated with installation and decommissioning of turbidity curtains, LFA or bottom barriers, resulting in less than significant impacts to sediment disturbance and turbidity.

Thank you for your comment regarding the turbidity monitoring specifications in Section 2.0 of the MMRP, the specifications have been clarified.

Regarding boat access to curtained off areas during CMT implementation, see response to comments Summary Response 11.10.

Regarding receiving water limitations, see response to comment Summary Response 11.1.

Regarding the alignment of the individual NPDES permit for the CMT project with the State Water Board GP, see Summary Response 8.1.

For further response on why the monitoring is comprehensive and will detect water quality changes, see Summary Response 8.1 regarding the MRP and Summary Response 8.8 regarding the MMRP.

Comment Table 8.4

Comment Number	Comment	Commenter
305.039	The CMT NPDES Monitoring Map shows the locations of "NPDES Compliance Monitoring (Receiving Water Inside of Barriers)" and "NPDES Compliance Monitoring (Receiving Water Outside of Barriers)" and the locations of turbidity curtains. More turbidity curtains should be installed around the many treatment areas, particularly in the western lagoons where there are nine treatment sites and only 4 curtains. Only one site, Site 14, is surrounded completely by turbidity curtains; three of four curtains in the western lagoons surround this site. The number of monitoring locations referred to as Receiving Water Inside the Barriers (red diamonds on the map) is far too small. Many more monitoring locations should be required to reduce sampling error and/or bias and to more accurately ensure compliance with the RWLs in the permit. These monitoring locations should be "immediately outside the treatment area," where monitoring is required to be located by the State Board's GP (see comments on the MRP). The requirements of this permit should be at least as stringent as the State Board's GP and should undoubtedly be much more stringent considering (a) this is the first-time discharge of herbicides to this ONRW and (b) this is supposedly a "test".	Tahoe Area Group of the Sierra Club
305.097	55) Mitigation EH-3g states that double turbidity curtain barriers would be installed to confine the herbicide applications and ensure that herbicide residues and chemical transformation products do not migrate toward the West Channel connecting the West Lagoon to Lake Tahoe. Boats will enter and exit the curtained-off areas to apply herbicides and perform monitoring and other tasks. There is no discussion in EH-3g or elsewhere in the permit of how mixing of waters inside and outside the curtained-off areas when boats enter and exit will be prevented. Mitigations for this mixing must be specified. Monitoring of aluminum during and after installation and removal of the turbidity curtains should be required because aluminum is extremely toxic to aquatic organisms. The curtains, which are weighted on the bottom, will undoubtedly stir up the muck on the bottoms of the lagoons, which contains high concentrations of aluminum. The high concentrations exist because large quantities of aluminum sulfate (alum) were dumped into the	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	lagoons during the building of the Keys to settle out the fine sediments in the water. Also, turbidity curtains notoriously fail to completely prevent mixing of waters behind the curtains with waters outside the curtains, particularly if there are stormwater outlets behind the curtains. Stormwater inflows typically exert high enough pressure on the curtains to overwhelm them and allow mixing. Therefore, the permit should require more frequent (daily) receiving water monitoring adjacent to the curtains not just when they are installed and removed, but while they are installed. The more frequent monitoring should include testing for aluminum.	
305.11	Impact Issue EH-5 in Table ES-1 of the DEIR/DEIS is “Short-term Increases in Aluminum Concentrations.” The MMRP states that “Turbidity would be monitored to ensure that sediment disturbance and the consequent potential for mobilization of aluminum into the water column is minimized.” If the impact to be mitigated is short term increases in aluminum concentrations, simultaneous monitoring of aluminum should obviously be required. The adequacy of mitigations for increases in aluminum concentrations can be determined only if aluminum is monitored. Aluminum monitoring should also be required because aluminum is extremely toxic to aquatic organisms, as previously noted. The MMRP also states “Implementation of BMPs would be tied to real-time monitoring of turbidity during project activities having the potential to disturb sediments, with BMPs triggered by exceedances of permit turbidity limits.” (Emphasis added) What BMPs would be implemented if turbidity maximums are reached? There are no specific BMPs for mitigating turbidity exceedances in the draft permit, the MMRP, and TKPOA’s application and APAP. Section 2.0 of the MMRP, “Turbidity Monitoring”, contains inconsistencies. The first paragraph of Section 2.0 of the MMRP states that turbidity monitoring will be done in conjunction with herbicide application, installation of turbidity curtains, installation of Laminar Flow Aeration (LFA) or other aeration devices, in the use of lanthanum modified clay, and the installation and removal of bottom barriers,” but does not include any specification of the monitoring, except for the installation and removal of turbidity curtains. Section 2.1 of the MMRP specifies that turbidity monitoring “during the installation and removal of turbidity curtains” be done by “either a calibrated hand-held turbidity field meter, real-time continuous data logger, or visually from the immediate area,”	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	thereby voiding the requirement of “real-time” monitoring, and goes on to require “grab samples” and “visual monitoring.”	

Summary Comment 8.5

Section II.B.4 of the MRP does not specify the timing or frequency of bioassessments or refer the reader to specifications elsewhere in the project documents. Lahontan should have required preparation of a plan for the biological monitoring required by Section IV.A and submission of this plan at the same time as the draft permitting documents. The report on the 2019 Surveys is one of the reports of background data that have not been made available to the public. The claims in the antidegradation analysis that the duration of the project’s impacts is limited to “weeks to months, not years” cannot be verified by the minimal amount of bioassessment required by Section IV.A. The biological monitoring required by Section IV.A is exceedingly insufficient. Bioassessments should be performed during every year of the project, before project activities begin and then monthly during the project season, until restoration of non-target aquatic life and benthic communities within treatment areas has been certified.

Summary Response 8.5

Biological Monitoring, Attachment F Section VI.D.2., of the NPDES permit for the CMT project requires pre- and post-treatment macroinvertebrate and aquatic vegetation monitoring with post-treatment monitoring conducted no later than two years after the application event to characterize the impacts of applications on aquatic life uses in the receiving waters.

As indicated in the NPDES permit for the CMT project, Attachment E Section VI.A. Biological Monitoring Requirements, the Discharger must characterize impacts of the chemical discharges on aquatic life uses in the treatment areas by using biomonitoring (bioassessment) techniques to document the assemblages of aquatic communities and condition of physical aquatic habitat. Biomonitoring must be conducted for each treatment area a minimum once before the application event and a minimum of annually thereafter. A qualified biologist must provide a certification assessing restoration of non-target aquatic life and benthic communities within treatment areas two years post-treatment. The biomonitoring must be conducted in accordance with the bioassessment protocols specified in the National Lakes Assessment 2017 Field Operations Manual, Version 1.1, April 2017, or equivalent methods approved by the Lahontan Water Board Executive Officer. The Discharger must conduct background, event, and post-event macroinvertebrate monitoring, including benthic macroinvertebrates, annually and for a minimum two years.

The NPDES permit for the CMT project also includes requirements for special studies, technical reports and additional monitoring, Attachment F Section VIII.B.2.b., Qualified Biologist Certification Following Project Completion. The Discharger is required to assess the restoration of non-target aquatic life and benthic communities within the

treated waters within two years post-discharge, and if, based on the monitoring data, the evidence demonstrates, certify in writing that all affected non-target biological communities have been fully restored to pre-project conditions. The certification is required to be accompanied by a report detailing the pre-project and post-project monitoring, including detailed explanation of the assessment methods used and the rationale for the certification.

The APAP Monitoring and Reporting Program for the CMT project, includes hydroacoustic scanning to estimate plant biovolume, annual benthic macroinvertebrate (BMI) surveys, and physical point intercept plant sampling surveys. Hydroacoustic scanning will be completed every two weeks from April through October. BMI annual surveys will be completed each spring. Physical point intercept plant sampling surveys will be completed annually in May, June, and September. Following the final BMI surveys, the conditions of BMI compared with pre-CMT conditions will be reviewed by a qualified biologist to determine if pre-CMT conditions have been achieved, or improved, and the qualified biologist will prepare a report identifying if recovery was reached.

The MMRP for the CMT project requires annual spring macrophyte, aquatic plant, surveys. The pre-CMT spring macrophyte survey will be used as a basis to adjust testing site boundaries to better target dense beds of target species and avoid native plant communities. The results must be compiled and analyzed into a report prior to the use of aquatic herbicides.

The MMRP also requires TKPOA to conduct a pre-CMT field reconnaissance of potentially affected terrestrial, riparian, and aquatic (benthic and littoral zones), habitat and species. This will include the test sites and buffer zones appropriate to each potentially affected species. A survey and summary report of the pre-test field reconnaissance for potentially affected terrestrial, riparian, and aquatic (benthic and littoral zones), habitat and species must include the results of the survey and a decision summary for the delineation of the treatment areas.

For comments regarding the public availability of background data and reports, see response to comments Summary Response 3.2.

Comment Table 8.5

Comment Number	Comment	Commenter
305.048	Section II.B.4 of the MRP does not specify the timing or frequency of bioassessments or refer the reader to specifications elsewhere in the project documents. Bioassessments should be taken immediately preceding application and within one week after treatment inside and outside the treatment area. Bioassessments should be taken monthly until the bioassessments indicate conditions similar or better than the results taken prior to the herbicide discharge.	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
305.053	Biological monitoring is no less important than other monitoring. Lahontan should have required preparation of a plan for the biological monitoring required by Section IV.A and submission of this plan at the same time as the draft permitting documents. This plan should have specified which protocols in the USEPA National Lake Assessment Field Operations Manual or the State's Surface Water Ambient Monitoring Plan would be implemented. The BMI sampling protocol that would be used is presumably the protocol used in the 2019 Fish and Benthic Macroinvertebrate Surveys in Tahoe Keys Lagoons (assuming this protocol was appropriate). However, the report on the 2019 Surveys is one of the reports of background data that have not been made available to the public, as noted in general comment 3, and should have been made available. The statement of biological monitoring requirements in Section IV.A must be corrected. The biological monitoring plan should have been made available with the other documents for public review and comment. The biological monitoring required by Section IV.A is exceedingly insufficient. The bioassessments required by Section IV.A of Attachment E should be performed more frequently than annually and, if results are different from pre-event bioassessment results by the end of year two, then monitoring should continue for more than two years. The claims in the antidegradation analysis that the duration of the project's impacts is limited to "weeks to months, not years" cannot be verified by the minimal amount of bioassessment required by Section IV.A. Bioassessments should be performed during every year of the project, before project activities begin and then monthly during the project season, until restoration of non-target aquatic life and benthic communities within treatment areas has been certified.	Tahoe Area Group of the Sierra Club
305.19	The DEIR/DEIS also identified "potential direct and indirect effects to the benthic macroinvertebrate community" (AQU-5), but minimized the impacts because of the temporary and localized nature of the treatment and stated, "no mitigation is required." Monitoring of the potential direct and indirect effects to the benthic macroinvertebrate community should be required. The bases for this requirement are (a) the "paucity of data" with regard to effects of pesticides on benthic macroinvertebrates according to one study17, and (b) a study reporting that "pesticides were potentially toxic to nontarget aquatic life in about half of the sampled streams." 18 Monitoring for a project that is testing control methods	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	which the applicant plans to apply on a much larger scale in a future project in this Tier III ONRW should include intensive monitoring of these effects.	

Summary Comment 8.6

Section VI.D, Other Monitoring Requirements, provides language that is not the basis for what is in the Order, does not explain the basis for the Order. Instead, it contains the language of the Order.

Summary Response 8.6

Section VI.D provides the reasoning for the monitoring. The goals of the MRP include evaluating the effectiveness of BMPs included in the Order and assessing the chemical, physical, and biological impacts on receiving waters resulting from aquatic herbicide, lanthanum-modified clay and Rhodamine WT applications, and determining compliance with the NPDES permit. Section VI. D. The Other Monitoring Requirements includes monitoring and reporting on BMP implementation, Biological Monitoring to characterize the impacts of applications on aquatic life uses in the receiving waters, Sediment Monitoring to characterize the impacts of aquatic herbicide discharges on sediment quality in the receiving waters, and Visual Observations to determine, in conjunction with physical and chemical monitoring, compliance with receiving water limitations.

Comment Table 8.6

Comment Number	Comment	Commenter
305.078	Section VI.D, Other Monitoring Requirements, provides language that is not the basis for what is in the Order, does not explain the basis for the Order. Instead, it contains the language of the Order.	Tahoe Area Group of the Sierra Club

Summary Comment 8.7

It certainly seems prudent and appropriate for the Water Board to require interim reports at least on a semi-annual if not quarterly basis. Written reports of “any noncompliance, including any unexpected or unintended effect of a discharge, that may endanger public health or the environment” should be required. What procedures would Lahontan use to inform the public of the existence of these reports and make them available? Lahontan staff should NOT be allowed to waive any written noncompliance report.

Summary Response 8.7

Because CMT project activities are expected to occur annually from spring through fall, annual reporting for the program is appropriate. As described in the APAP, in the event of a spill into the water, Lahontan will be notified orally within 1 hour and the location will

be immediately documented and geo-referenced with GPS latitude and longitude and time of spill which will be provided to the Lahontan within 24 hours of the incident (TKPOA, 2021). All other stakeholders will be notified either in conjunction with Lahontan notification or within one week of official notification to the LWB (TKPOA, 2021). A written report of the incident will be provided within 5 days (TKPOA, 2021). In addition, Quarterly Violation Reports are presented to the LWB that include brief summaries of violations that occurred during the reporting period. Spill reports are included in the Quarterly Violation Reports which are available online from the LWB website.

Comment Table 8.7

Comment Number	Comment	Commenter
305.055	Section V.C of the MRP states that the annual report must be provided by March 1 of the year after application. Although March 1 is the due date in the State Board's GP, considering that this required date is almost an entire year after the application event is planned and that the supposed purpose of the herbicide discharge is a "test," then it certainly seems prudent and appropriate for the Water Board to require interim reports at least on a semi-annual if not quarterly basis.	Tahoe Area Group of the Sierra Club
305.056	Section V.G.1 of the MRP requires a report be provided orally to Lahontan within 24 hours if "any noncompliance, including any unexpected or unintended effect of a discharge, that may endanger public health or the environment." A report that contains the eight categories of required information listed in V.G.1.a-h is likely to be far too lengthy and detailed for error-free oral transmission. Written reports should be required. What procedures would Lahontan use to inform the public of the existence of these reports and make them available?	Tahoe Area Group of the Sierra Club
305.057	Section V.G.2 of the MRP requires a five-day written report that contains more specific information about the noncompliance event that was reported within 24 hours. However, the list of nine requirements of this written 5-day report concludes with the following statement: "Lahontan Water Board staff may waive the above required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. Such a waiver must be provided in writing." This statement should be deleted. Lahontan staff should NOT be allowed to waive any written noncompliance report. There are 16 items of information required in section V.G.1 and 2 and this information should be provided in written form to Lahontan. Furthermore, Lahontan should specify in the permit how it intends to release this information to the public.	Tahoe Area Group of the Sierra Club

Summary Comment 8.8

The monitoring and reporting mechanisms for the Mitigation Monitoring and Reporting for the Control Methods Test of Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoon are inadequate.

Impact Issue EH-3 in Table ES-1 of the DEIR/DEIS is “Protection of Drinking Water Supplies.” The MMRP states this impact will be partially mitigated by mitigation EH- 3b, use of Rhodamine WT dye as a tracer for herbicides and contingency plans that include shutting off the wells and distributing bottled drinking water to all users if herbicides are detected. The contingency plans have not been made available to the public for review and comment.

Section 7.0 of the MMRP requires that spills be reported in the Annual Report, which is due on March 1, nearly one year after the treatment. Spills should be reported during the implementation season. In addition, any spills or exceedances should be publicly noticed and the details of and responses to the spill or exceedance be made available for public review.

The MMRP states that “Turbidity would be monitored to ensure that sediment disturbance and the consequent potential for mobilization of aluminum into the water column is minimized.” If the impact to be mitigated is short term increases in aluminum concentrations, simultaneous monitoring of aluminum should obviously be required.

Section 3.0 of the MMRP, “Water Quality Parameters,” contains inconsistencies. Table ES-1 refers to “real-time monitoring” for DO, temperature and pH in numerous locations. However, section 3.0 states “If continuous data loggers are not used, monitoring and measurements will be done 3 days each week (typically Monday, Wednesday, Friday).” The DEIR/DEIS references “real-time monitoring” for either pH, DO or temperature 31 times. The mitigation measure was clear in the DEIR/DEIS that real-time monitoring would be employed.

Section 2.1 of the MMRP specifies that turbidity monitoring “during the installation and removal of turbidity curtains” be done by “either a calibrated hand-held turbidity field meter, real-time continuous data logger, or visually from the immediate area,” thereby voiding the requirement of “real-time” monitoring, and goes on to require “grab samples” and “visual monitoring.”

Turbidity curtains notoriously fail to completely prevent mixing of waters behind the curtains with waters outside the curtains, particularly if there are stormwater outlets behind the curtains. And boats will enter and exit the curtained-off areas to apply herbicides and perform monitoring and other tasks, causing mixing of waters inside and outside the curtained-off areas.

The spring macrophyte survey report associated with AQU-1 should be made available for public review. Mitigations of Aquatic Biology and Ecology Impacts AQU-2 through AQU-9 in the DEIR/DEIS are not included in the Summary Table or mentioned in the

MMRP, although Table 5-1 of the DEIR/DEIS states that all of these impacts have “No significant unavoidable effects after mitigation.”

Summary Response 8.8

The Mitigation Monitoring and Reporting Program (MMRP) is the primary monitoring program associated with the California Environmental Quality Act (CEQA). California Code of Regional, title 14, section 15097 requires that a public agency to adopt a program for monitoring or reporting to ensure that mitigation measures and projects revisions identified in the EIR are implemented. The Lahontan Water Board may choose whether the program will monitor mitigation, report on mitigation, or both. Reporting can consist of a written compliance review presented to the agency, and monitoring can include either ongoing or periodic process of project oversight. The monitoring requirements of the MMRP for the CMT project is more than adequate because it includes monitoring that would ensure implementation of mitigation measures identified in the FEIR/FEIS, as well as monitoring associated with some resource protection measures identified in the FEIR/FEIS or a requirement issued under Water Code Section 13267.

Impact Issue EH-3 is expected to have a less than significant impact and therefore no mitigation measures have been identified. However, Resource Protection Measure EH-3b states that if herbicides are detected in nearby wells, contingency plans include shutting off the wells and distributing water to all users until residues are no longer detected in the samples. Contingency Measures are described in Section 5.2 of the APAP (TKPOA, 2021).

As described in the APAP (TKPOA, 2021), in the event of a spill into the water, Lahontan Water Board staff will be notified orally within 1 hour and the location will be immediately documented and georeferenced with GPS lat/long and time of spill which will be provided to the Lahontan within 24 hours of the incident. As described in the NPDES permit for the CMT, Section VI.C.3.a.iii., the Discharger must provide a final Spill Response Plan addressing any potential spill of chemicals utilized for project implementation that includes the contact information for the hazardous material response team that will respond to spills during project implementation 30 days prior to any aquatic herbicide and Rhodamine WT applications. For comments regarding reporting of spills or exceedances, see response to comments Summary Response 8.4.

Real-Time Water Quality Monitoring for DO, temperature, and pH described in the DEIR/DEIS consists of water quality monitoring with portable instrumentation that will be performed during each test activity to determine if any adjustments to the methods or pace of work is necessary to maintain compliance with water quality standards.

For comments of concern regarding boat access to curtained off areas during CMT implementation, see Summary Response 11.10.

For comments regarding WQOs, see Summary Response 7.1. For comments regarding receiving water limitations and acute and chronic toxicity, see r Summary Response 11.1.

For comments regarding the availability of the spring macrophyte survey report associated with AQU-1, see Summary Response 8.4.

The final EIR/EIS (FEIR/FEIS) has clarified Table ES-1 to reflect discussion in the document regarding mitigation measures and resource protection measures. As identified in the FEIR/FEIS, measures associated with Impact Issues AQU-2, AQU-5, AQU-6, AQU-6, AQU-7, AQU-8, and AQU-9 are resource protection measures. With the implementation of mitigation measure AQU-1, Impact Issues AQU-3 and AQU-4 are less than significant. DEIR/DEIS Table 5-1 contained an error; as presented in the FEIR/FEIS the following edit was made in Table 5-1 for Issues AQU-2, AQU-5, AQU-6, AQU-7, AQU-8, and AQU-9 for the CMT: “No significant unavoidable effects.”

Regarding plan submittal and available, see summary response 3.1 and 3.2.

Comment Table 8.8

Comment Number	Comment	Commenter
251.03	3. Mitigation Monitoring and Reporting for the Control Methods Test of Herbicides and Other Techniques to Reduce Aquatic Invasive Plants in the Tahoe Keys Lagoon I am opposed because the monitoring and reporting mechanisms are inadequate.	Judith Michaels Simon
305.094	Impact Issue EH-3 in Table ES-1 of the DEIR/DEIS is “Protection of Drinking Water Supplies.” The MMRP states this impact will be partially mitigated by mitigation EH- 3b, use of Rhodamine WT dye as a tracer for herbicides and contingency plans that include shutting off the wells and distributing bottled drinking water to all users if herbicides are detected. The contingency plans have not been made available to the public for review and comment. In addition, all mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. (CEQA Guidelines, § 15041.) Implementation of this mitigation would require a very large effort, which may not be feasible. The applicant should be required to demonstrate feasibility. Also, this measure will not mitigate the effects on skin from showering in water tainted with herbicides. “If any suggested mitigation is found to be infeasible, the lead agency must explain why and support that determination with substantial evidence, presented in their findings and a statement of overriding considerations. (CEQA Guidelines, §§ 15091 and 15093.)” (AEP, CEQA Portal)	Tahoe Area Group of the Sierra Club
305.1	Section 7.0 of the MMRP requires that spills be reported in the Annual Report, which is due on March 1, nearly one year after the treatment. Spills should be reported during the implementation season. In addition, any spills or exceedances should be publicly noticed and the details of	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	and responses to the spill or exceedance be made available for public review.	
305.12	Similarly, section 3.0 of the MMRP, "Water Quality Parameters," contains inconsistencies. Table ES-1 refers to "real-time monitoring" for DO, temperature and pH in numerous locations. However, section 3.0 states "If continuous data loggers are not used, monitoring and measurements will be done 3 days each week (typically Monday, Wednesday, Friday)." The DEIR/DEIS references "real-time monitoring" for either pH, DO or temperature 31 times. The mitigation measure was clear in the DEIR/DEIS that real-time monitoring would be employed. The MMRP should be revised to reflect this requirement and the MRP in the NPDES should be consistent with the MMRP.	Tahoe Area Group of the Sierra Club
305.13	Impact Issue WQ-2 in Table ES-1 of the DEIR/DEIS is "Sediment Disturbance and Turbidity". The comments on mitigation of turbidity-curtain related impacts by mitigation EH-3g also apply to the mitigations of this impact.	Tahoe Area Group of the Sierra Club
305.14	Issue WQ-5 in Table ES-1 of the DEIR/DEIS is "Changes in Dissolved Oxygen Concentrations." Mitigation WQ-5b specifies that deployment of aeration would occur in these circumstances if real-time DO monitoring indicated the need: (1) after herbicide or UV-light treatment; (2) after plant dieback from herbicide or UV-light treatment; (3) if DO does not meet permit requirements. The requirements for DO monitoring in section 3.0 of the MMRP are inconsistent. The first paragraph states that monitoring "by using a calibrated continuous water quality data logging device, or other hand-held multiparameter meter" is required. The second paragraph contradicts this requirement, stating detailed monitoring procedures to be followed "if continuous data loggers are not used". Inconsistent specifications of permitted monitoring methods should be resolved by requiring the use of the monitoring method or methods that collect more complete data.	Tahoe Area Group of the Sierra Club
305.15	The mitigation for WQ-6 and WQ-7 should be daily monitoring of TP and TN during the test. Impact Issues WQ-6 and WQ-7 in Table ES-1 of the DEIR/DEIS are "Increases in Total Phosphorus Concentrations" and "Increases in Lagoon Water Total Nitrogen Concentrations," respectively. Decaying aquatic plants killed by the treatments release phosphorus and nitrogen to the water column. The only mitigation required by the MMRP is early timing of the test to minimize the biomass of decaying vegetation. The draft permit requires monitoring of TP only if lanthanum-modified	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	clay is discharged to reduce phosphorus after "visual inspection of a treated area indicates a possible HAB." The draft permit does not require monitoring of TN. The mitigation for WQ-6 and WQ-7 should include daily monitoring of TP and TN during the test in order to anticipate a HAB before it occurs.	
305.17	AQU-1, "Effects on Non-Target Aquatic Macrophyte Species" in the MMRP relies on spring macrophyte surveys as mitigation for potentially significant impacts and states that "Spring macrophyte surveys would be used as a basis to adjust testing site boundaries to better target dense beds of target species and avoid native plant communities." The survey report should be made available for public review. It appears that adjustments of testing site boundaries and the benefits of adjustment are likely to be limited. The results of the surveys should be available to the public.	Tahoe Area Group of the Sierra Club
305.18	Mitigations of Aquatic Biology and Ecology Impacts AQU-2 through AQU-9 in the DEIR/DEIS are not included in the Summary Table or mentioned in the MMRP, although Table 5-1 of the DEIR/DEIS states that all of these impacts have "No significant unavoidable effects after mitigation." (Emphasis added)	Tahoe Area Group of the Sierra Club

Summary Comment 8.9

The MRP in the draft NPDES Order and the MMRP prescribe apparently conflicting monitoring requirements. There are apparent differences between monitoring locations shown on figures in Attachment C of the NPDES permit and Figure 1 of the MMRP. The NPDES permit does not require real-time monitoring and the real-time monitoring described in the MMRP includes alternative monitoring options, conflicting with real-time monitoring requirements. Daily monitoring and real-time monitoring should be required throughout the CMT project.

Because monitoring in receiving waters is required only every 48 hours, there are significant risks of herbicides not being detected in the lengthy intervals between sampling.

Summary Response 8.9

The Mitigation Monitoring and Reporting Program (MMRP) for the CMT project and the Monitoring and Reporting Program (MRP) of the NPDES permit for the CMT project serve different purposes. The MMRP is the primary monitoring program associated with the California Environmental Quality Act (CEQA). CEQA requires the monitoring or reporting program to ensure implementation of the mitigation measures. The MMRP describes the monitoring requirements for mitigation measures that were identified in the

FEIR/FEIS. The monitoring is either required in the NPDES permit or in the Water Code section 1367 Order contained in the MMRP. The MRP establishes receiving water monitoring, reporting, and recordkeeping requirements associated with the NPDES permit for application of aquatic herbicides. The MRP contains the NPDES compliance monitoring locations, which are a subset of the sampling associated with the CMT project.

The map in Attachment C of the MRP identifies locations of Herbicide Only Treatment Areas, Integrated Herbicide/UV-C Light Treatment Areas, and NPDES Compliance Monitoring Locations. Figure 1 of the MMRP identifies Herbicide Only Treatment Areas, Integrated Herbicide/UV-C Light Treatment Areas, LFA Treatment Areas, UV-C Light Only Treatment Areas, and Control Sites, as well as proposed water quality monitoring locations from the APAP.

Real-Time Water Quality Monitoring for DO, temperature, and pH described in the DEIR/DEIS consists of water quality monitoring with portable instrumentation that will be performed during each test activity to determine if any adjustments to the methods or pace of work is necessary to maintain compliance with water quality standards.

For further response on why the monitoring is comprehensive and will detect water quality changes, see Summary Response 8.1 regarding the MRP and Summary Response 8.8 regarding the MMRP.

Comment Table 8.9

Comment Number	Comment	Commenter
305.025	The MRP in the draft NPDES Order and the MMRP prescribe apparently conflicting monitoring requirements. Even the MRP in the draft NPDES Order and the antidegradation analysis in Attachment G of the Order prescribe apparently conflicting requirements. Many of the conflicting requirements are not clearly stated, and a confident understanding of what monitoring is actually required is not possible. Of particular note is the “real-time monitoring” that cited numerous times in the DEIR/DEIS as mitigation of significant impacts. Real-time monitoring is claimed to be required in the MMRP, yet it is not actually required because alternative monitoring options are allowed in sections 2 and 3 the MMRP. It is also not required in the draft permit’s MRP3, but yet is “required” in Attachment G to show that best practicable treatment or control practices were being used. Footnote included: 3 In fact, Note 4 in Table E-1 of the MRP states: “Grab sample or multi-probe measurements of temperature, pH, turbidity and	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	dissolved oxygen to be taken as discrete measurements from the surface, mid-depth, and near bottom within the water column." (Emphasis added) In addition, only two samples are required for post-event monitoring. Therefore, no real-time monitoring is required in the permit.	
305.095	Impact Issue EH-3 in Table ES-1 of the DEIR/DEIS is "Protection of Drinking Water Supplies". Mitigation EH-3d, "West Channel Monitoring and contingencies", specifies the responses to detections of herbicides in receiving waters outside turbidity curtain barriers and to detections in the Main Lagoon within 500 feet of the West Channel. However, because monitoring in receiving waters is required only every 48 hours, there are significant risks of herbicides not being detected in the lengthy intervals between sampling. Herbicides would be monitored in the Main Lagoon only if monitoring in receiving waters detects herbicides, and then only every seven days. Hence there is an obvious risk of herbicides in the Main Lagoon not being detected. The adequacy of such infrequent monitoring must be justified. Daily monitoring should be required. This infrequent monitoring is another example of the inadequate monitoring requirements in the NPDES permit and the MMRP. Monitoring for a project that is testing control methods which the applicant plans to apply on a much larger scale in a Tier III ONRW and the adequacy of mitigations for impacts of these methods should be much more intensive.	Tahoe Area Group of the Sierra Club
305.096	Also, why is Figure 1 in the MMRP so much different than Attachment C in the draft permit? There should be consistency between all monitoring required and there definitely no consistency between the two draft Orders or even within the draft NPDES Order.	Tahoe Area Group of the Sierra Club
305.2	Section 6.0 of the MMRP state that "Examples of monitoring data that could indicate a condition requiring notification of the Water Board include… Rhodamine WT dye testing triggers an analysis for pesticide sampling." This appears to indicate that pesticide sampling will not occur unless the dye is detected assumably through visual monitoring. Again, the monitoring in the Attachment E of the draft permit and the MMRP is inconsistent and unclear. Monitoring of herbicides and its degradants	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	must be monitored as indicated throughout these comments.	

Summary Comment 8.10

Also, do you plan to keep the people out of the lake after the herbicide is used for a certain period of time? The reason I ask for this is that I was poisoned by herbicides while on a month long “vacation” from Tahoe about 20 years ago. And so was everyone else in the area. I learned it was certain herbicide that was sprayed (by crop duster) that can cause nerve damage (which is the what I experienced and had damaged nerves for all these many years, although better today.) I’ve also learned through the years that herbicides are cancer causing, such as from glyphosate. There’s plenty of research on herbicides causing harm to people AND wildlife, including fish. We know our bears go in the lake to get some laps of “their favorite beverage” and the residents have dogs that run in the shallow watered shores.

Summary Response 8.10

It is important to be clear that the entire Lake Tahoe will not be affected by the proposed tests. Application of herbicides would only occur within the Tahoe Keys lagoons and Lake Tallac. As described in the APAP, TKPOA will block off portions of the lagoons during application of the herbicides which will restrict homeowner and rental boat access. TKPOA will design and carry out an information campaign to give advance notice on the restrictions during the CMT test period. The campaign will be directed to homeowners, renters, and rental agencies and will include the use of emails, flyers, direct correspondence by USPS, TKPOA periodical (The Keys Breeze), and media. In addition, adequate signage will be displayed around CMT Project areas to inform property owners and potential visitors about the CMT project and current status of waterways. Announcements and project summaries will be prepared and distributed a minimum of two months in advance, as well as two weeks prior to the start of any herbicide application. The TKPOA will notify the general public through the TKPOA periodical (The Keys Breeze), websites and local media outlets once the project is completed and water quality has returned to pre-project levels. These announcements will be posted within 1 week of water quality returning to pre-project levels. Use of Roundup or other glyphosate herbicide products are not proposed as part of the CMT.

Comment Table 8.10

Comment Number	Comment	Commenter
138.03	Also, do you plan to keep the people out of the lake after the herbicide is used for a certain period of time? The reason I ask for this is that I was poisoned by herbicides while on a month long “vacation” from Tahoe about 20 years ago. And so was everyone else in the area. I learned it was certain	Marilyn Sunia

Comment Number	Comment	Commenter
	herbicide that was sprayed (by crop duster) that can cause nerve damage (which is the what I experienced and had damaged nerves for all these many years, although better today.) I've also learned through the years that herbicides are cancer causing, such as from glyphosate. There's plenty of research on herbicides causing harm to people AND wildlife, including fish. We know our bears go in the lake to get some laps of "their favorite beverage" and the residents have dogs that run in the shallow watered shores.	

Summary Comment 8.11

Support the rigorous, science-based approach, the monitoring methods, and the concurrent testing of both chemical and non-chemical treatment methodologies of the CMT project.

Summary Response 8.11

Thank you for your comments in support of the CMT project.

Comment Table 8.11

Comment Number	Comment	Commenter
262.21	The League takes the potential use of chemicals at Lake Tahoe very seriously and understands that any consideration of their use, even for testing, needs to provide numerous protections, mitigation and extensive monitoring. The CMT does all of this very thoroughly. We are encouraged by the antidegradation analysis and the successful use of the proposed chemicals in other lake environments. The rigorous independent scientific review commissioned by the Tahoe Science Advisory Council concluded that the monitoring proposed is: "scientifically rigorous," and that the "monitoring methods are sound." The Tahoe Science Advisory Council review also highlights that the mitigation and monitoring "will allow the study to answer the question of which, if any, aquatic invasive plant control methods are effective" and that "the methods to monitor herbicide and degradant chemicals in the water are sound."	League to Save Lake Tahoe
262.13	We support the rigorous science-based approach to testing and monitoring all potential control methods as a cohesive three-year program which would result in no long term degradation of Lake Tahoe water quality. Testing all the methods at the same time in similar conditions is important so methods can be compared fairly. Phasing testing would	League to Save Lake Tahoe

Comment Number	Comment	Commenter
	not allow for the most informative and scientifically rigorous test.	

Category 9 Miscellaneous comments

Summary Comment 9.1

Boating is a way weeds are transported out the Tahoe keys and one solution to slow weed transport would be stop boating from the Tahoe Keys.

Summary Response 9.1

The Water Board does not have authority to prohibit boating in the keys. The Water Board has primary responsibility for the protection of water quality in the Lahontan Region. The Water Board does not prioritize recreational boating over or above the water quality of Lake Tahoe. Regarding restricting access to the West Channel by use of a barrier, see Summary Response 6.5. Regarding boat access to curtained off areas during CMT implementation, see response to comments Summary Response 11.10.

Comment Table 9.1

Comment Number	Comment	Commenter
30.04	Boating is the number one vector for weed transport out of the Tahoe Keys. Why is boating allowed to continue? If boating were to be stopped until, the weeds were under control that would stop the vast majority of weed transport from the Tahoe Keys to greater Lake Tahoe	Pablo Ortega
194.01	My husband and I own a boat and live in Reno. Over the last four years, we have spent several vacations every summer renting a home in the keys, and using the keys marina. The keys marina is absolutely the worst at verifying the seal, and doing their part to prevent invasive species from entering the lake in the first place. When we pull our boat out at the keys, then take it to incline to RE-launch, they cannot ever find our serial number from coming out, because the keys refuses to abide by the rules the rest of the lake is following.	Alyssa McDermott
327.04	3. Boating is the number one vector for weed transport out of the Tahoe Keys. One solution is to stop boating until the weeds are under control, that could slow the weed transport from the Tahoe Keys to greater Lake Tahoe. Please watch this video of case studies at other lakes: https://www.youtube.com/watch? v=ofLTzfwY2pg Below you will find the case study documenting the effectiveness of aeration in Lake Tahoe: https://www.clean-flo.com/news-articles/efficacy-of-cleanflos-laminar-flow-aerationand-bioaugmentation	Kathy Enking
272.09	7.Closing off the Keys, or installing a boat lock system, could also rapidly and successfully achieve a lakewide goal to limit the spread of invasive weeds from boating activity. Existing vector controls from the channels and marinas can certainly be enhanced. Restricting boating would directly reduce the	Tahoe Water Suppliers Association

Comment Number	Comment	Commenter
	spread of weeds. Boating is a known vector for the spread of the weeds (per Lahontan staff report), but reducing boating is not part of the equation.	
353.03	3. Boating is the number one vector for weed transport out of the Tahoe Keys. Why is boating allowed to continue? If boating were to be stopped until the weeds were under control that could stop the vast majority of weed transport from the Tahoe Keys to greater Lake Tahoe. Please watch this video of case studies at other lakes: https://www.youtube.com/watch? v=ofLTzfwY2pg Below you will find the case study documenting the effectiveness of aeration in Lake Tahoe: https://www.clean-flo.com/news-articles/efficacy-of-cleanflos-laminar-flow-aeration-andbioaugmentation/	Stacy Phillips
76.02	I would like the Board and the TRPA to address why the boating waterways are not closed off until eradication is successful. You know quite well that the boats are spreading noxious weeds throughout the lake and choose no action on this??	Carolyn Willette
349.03	Unrestricted access from the Tahoe Keys to Lake Tahoe created the AIS weed problem; continued unrestricted access will continue the problem. Recreational boating is regulated in all other access points to Lake Tahoe. The Tahoe Keys need to be regulated to prevent AIS weed vectors from entering Lake Tahoe. The solution to AIS spread from the Tahoe Keys to Lake Tahoe is containment for vector control. The only non-chemical method not addressed in the environmental documentation is the full vetting of boating restrictions.	Robert Vidra

Summary Comment 9.2

Why is laminar flow aeration not deployed first in Tahoe Keys before the use of herbicides? Why is it necessary to test herbicides as part of the CMT? The effectiveness of herbicides is already known from use in other surface waters.

Summary Response 9.2

The Laminar Flow Aeration (LFA) test site, Site 26, is already in operation in the Tahoe Keys and will be implemented continuously through the CMT testing. However, LFA is an experimental methodology that is unproven in controlling AIS on scale and density found in the Tahoe Keys. The CMT test will allow for additional testing of non-chemical methods UV-C light, LFA and the herbicides in similar conditions. If herbicides are not allowed to be tested against non-chemical methods, a comparison of the different treatment methodologies with minimal variability in testing conditions will not occur and

will reduce the information needed to determine what methods and/or combination methods will be best to control aquatic invasive plants.

Regarding why the Lahontan Water Board does not prohibit boating in the keys, see Summary Response 9.1.

Regarding why non-chemical methods do not need to be tested first, See Summary response 5.2.

Comment Table 9.2

Comment Number	Comment	Commenter
366.04	Questions that need to be addressed: 1. Why is laminar flow aeration not deployed first in Tahoe Keys? Before the use of herbicides? Aeration has been proven to work in Lake Tahoe to dramatically reduce the conditions promoting aquatic weeds. 2. Why is it necessary to TEST herbicides? Herbicides have been tested already in other water ways, not in Lake Tahoe. There is no doubt that herbicides will kill the weeds in the Tahoe Keys. 3. Boating is the number one vector for weed transport out of the Tahoe Keys. Why is boating allowed to continue? If boating were to be stopped until the weeds were under control that could stop the vast majority of weed transport from the Tahoe Keys to greater Lake Tahoe. Please watch this video of case studies at other lakes: https://www.youtube.com/watch? v=ofLTzfwY2pg Below you will find the case study documenting the effectiveness of aeration in Lake Tahoe: https://www.clean-flo.com/news-articles/efficacy-of-cleanflos-laminar-flow-aeration-and-bioaugmentation/ Please DO NOT put herbicides in our lake water! Thank you for the opportunity to comment and work together at finding good alternatives for our beautiful Lake Tahoe now and for future generations to come.	Emily Koeritz

Summary Comment 9.3

The Fact Sheet must address the legacy of this 60-year-old development and its 172 acres of largely stagnant artificial Keys lagoons where the build-up of muck and nutrient-laden sediment will continue to be the underlying cause of the invasive weed explosion each year.

Summary Response 9.3

The Lahontan Water Board is not required to describe the complete history of actions taken by the discharger associated with the Tahoe Keys Lagoons in the NDPES permit. Instead the NPDES permit and fact sheet discusses the conditions of the proposed discharge covered under the permit.

The CMT involves a one-time aquatic herbicide application. The proposed discharge of residual aquatic herbicides has minimal potential to create weed fragments. A long-term weeds management strategy is not under consideration by the Lahontan Water Board in this proceeding.

Comment Table 9.3

Comment Number	Comment	Commenter
305.062	This section further states: “The Discharger has been implementing seasonal harvesting and other mechanical controls since the mid-1980s with limited effect in terms of controlling the aquatic weed infestations.” The section continues with a description of how much worse the situation has become since 2014. Later on in this page, F-6, the following statement is made: “In addition, the current primary control method, aquatic weed harvesting, produces large quantities of weed fragments. These fragments are capable of propagating new plants and may be transported by wind, aquatic animals, waterfowl, and boat traffic from the lagoons into other areas of Lake Tahoe.” The Fact Sheet acknowledges (eventually) that the weed harvesting has actually made the problem worse by creating weed fragments that boaters from the Keys distribute around the lake, but it does not discuss why this harvesting was allowed to continue. Boating from the Keys is likely the predominant source of infestations at many locations around the Lake and is obviously the sole source of the Tahoe Keys Complex infestation in the Lake just outside the West Channel. The harvesting should have been eliminated years ago, but these practices were allowed to continue so that Keys boat owners could boat from their backyard boat docks to the lake. This worsening situation is of the TKPOA’s own making, all appearing to be designed to leave the Water Board with little choice but to permit herbicide discharges because the problem has become so untenable and out-of-control. The Fact Sheet should be clearer about the historical factors that have led up to the current situation. The Fact Sheet must address the legacy of this 60-year-old development and its 172 acres of largely stagnant artificial Keys lagoons where the build-up of muck and nutrient-laden sediment will continue to be the underlying cause of the invasive weed explosion each year.	Tahoe Area Group of the Sierra Club

Summary Comment 9.4

The hypothesis that root absorption of nutrients, especially phosphorus, from original wetland sediment is an important component in current nutrient concentrations is shown to be incorrect by the sediment sampling report. Regardless of the source, the core issue

is nutrients, the AIS are simply a symptom. The Tahoe Keys should be doing everything in their power to keep fertilizer out of the lagoons.

An engineering evaluation of the community design and corrective measures to eliminate dead end lagoons and waterways could not be located. The historical efforts to control invasive aquatic plants shows that combinations of techniques can be successful with continuation of the practices.

Greater regulatory oversight by the Lahontan Water Board is requested of the non-point source program to control and reduce the discharges from the many acres of green lawns that are directly adjacent to the lagoons.

Summary Response 9.4

The redesign of the Tahoe Keys Lagoons is not part of the proposed CMT project nor is the blocking off the Keys and removing accumulate materials. See Summary response 6.5 and Summary response 6.6.

On why stormwater and landscape irrigation were estimated to be small components of overall nutrient loading in the main lagoon, see Summary response 6.2.

For an explanation on why the Lahontan Water Board is not required to revise, improve, or implement all non-point source controls prior to allowing a point source discharge, see summary response 4.5.

Regarding acute and chronic toxicity, see Summary Response 11.2.

On the implementation of aeration, see Summary Response 9.2.

Comment Table 9.4

Comment Number	Comment	Commenter
361.02	The frequently repeated hypothesis - lacking any supporting evidence whatsoever - that root absorption of nutrients, especially phosphorus, from original wetland sediment is an important component in current nutrient concentrations is shown to be incorrect by the sediment sampling report. There's no doubt that, as a matter of the general biology of submersed aquatic plants, root absorption of nutrients by AIS contributes greatly to their growth. However, there is also no conclusive evidence that has been provided showing that the source of those nutrients is the original marsh sediment rather than more recent urban contributions. It's simply a hypothesis awaiting proper evaluation. 1. The sediment sampling report shows significant variation from year to year. The original sediment has been sitting in place, if indeed it remains (see below), for decades. Its nutrient content doesn't vary year to year, so it's probably not an important factor. 2. The original sediment was probably largely or completely excavated away to create the	Adrian Juncosa

Comment Number	Comment	Commenter
	Keys channels. No channel bottom boring logs that are of sufficient depth and detail are provided to show otherwise. Presumably there is a readily determined sedimentation rate that would enable us to determine whether the original sediment remains in place at all in the dredged channels, close enough to the surface to be within the root zone of the AIS. (Better still, this could be properly determined directly from coring the sediment and studying its isotopic and geochemistry by millimeter or centimeter.) 3. Flux of nutrients from the piled up original sediment underlying the parcels and common areas in the Key into the waters in the channel seems theoretically possible to me, however, no documentation provides any actual direct evidence (not just supposition) that it happens or quantifies its amount. Modern geochemistry and isotopic studies can certainly address this subject, but until those happen, this should be considered to be unimportant to AIS growth until such empirical evidence and quantification is provided. A more likely hypothesis is that the sediment sampling, ongoing nutrient deposition, and AIS root zone are all within materials that have been deposited during the time the Keys have existed. Thus, the hypothesis that original marsh sediment is relevant is not supported by any facts provided in the application supporting documentation. Therefore, other than any groundwater contribution from other urban areas that is conclusively demonstrated and quantified, not merely hypothesized, to be an important contributor, the entirety of both the nutrient and AIS problems are the responsibility of TKPOA and its members, which created both of them, so far as is shown by currently available documentation. Regardless of the source, the core issue is nutrients, the AIS are simply a symptom albeit one that threatens the greater Lake Tahoe ecosystem, not just the Keys channels themselves	
383.03	Although many non-chemical approaches are being used to combat the weeds, the real issue and challenge is the design and layout of the dead-end waterbodies and the abundance of nutrients being discharged into the waterways in the Tahoe Keys. The reality is that the lagoons never should have been constructed in the first place. Because of the environmental ignorance at the time of construction and the widespread overuse of fertilizer, any sort of effort to control weeds and cyanobacteria is a huge challenge if not an impossibility.	Trish Friedman
383.09	Homeowners still want their bright green lawns at any cost, and the fact that they are still allowed to use fertilizer is ridiculous. Fertilizer should have been banned decades ago and all the lawns removed. Since no one had the good common sense to	Trish Friedman

Comment Number	Comment	Commenter
	effectively enforce that policy we now have a giant mess on our hands. The Tahoe Keys should be doing everything in their power to keep fertilizer out of the lagoons. Since lawn fertilization has not been shut down the nutrients flow right into the dead water and give fodder to the massively monstrous weed and cyanobacteria growth. In addition, a fair number of homeowners also have pets who let them use their backyards as a toilet thus adding more ammonia and nutrients to the lagoons. When it rains the canine urine washes right into the lagoons thereby creating even more of a toxic situation. Between the fertilizer, weeds, cyanobacteria, and dog excrement you have a situation that is so out of synch with nature that any amount of money that you throw at it in terms of Band-Aid solutions is never going to restore a healthy ecology in those stagnant, disgusting lagoons until you stop those toxic inputs and figure out way to get the water circulating and find a non-toxic way to handle the weeds and cyanobacteria.	
305.005	despite the fact that aquatic herbicides do not address the underlying sources of the invasive weed population explosion at the Tahoe Keys: 1) high nutrient loading over multiple decades by stormwater from the Keys and South Lake Tahoe and 2) stagnant, warm water in the unnatural lagoons formed by dredging the Upper Truckee River marsh. TKPOA agrees, stating in a 2018 application that “The general conditions of the lagoons provide ideal habitat for prolific plant growth with abundant light, nutrients in the sediment, and near optimal water temperatures for most of the summer months.” Until the nutrient problem is effectively addressed, the weeds will continue to plague the lagoons, whether herbicides are used or not.	Tahoe Area Group of the Sierra Club
346.02	An engineering evaluation of the community design and corrective measures to eliminate dead end lagoons and waterways could not be located. Elimination of slow moving or stagnant waters and nutrient loads to surface water could provide a long-term solution for the control of invasive aquatic weeds and algae blooms. Excerpts from: Implementation Plan for the Control of Aquatic Invasive Species within Lake Tahoe, July 31, 2015: “Efforts in Lake Tahoe to remove or control Eurasian milfoil or other aquatic plants began in the 1980s and included mechanical harvesting and raking in the Tahoe Keys as a means to keep navigation pathways clear for boating traffic (Greenfield et al. 2004). In agreement with other published accounts, managers at the Tahoe Keys Property Owners Association (TKPOA) found that this treatment was likely increasing Eurasian watermilfoil biomass (Tischler, pers comm	Richard McHenry

Comment Number	Comment	Commenter
	2002). In an effort to find different solutions, managers in the TKPOA also attempted other experimental efforts such as the unsuccessful use of a water circulator (e.g., "Solar Bee") (Anderson et al. 2005)." (Page 15, Emphasis added) "The Lake Tahoe Invasive Aquatic Plant Control Program began in 2005 with experimental removal of Eurasian milfoil using diver-assisted suction removal, hand pulling and light impermeable bottom barriers in Emerald Bay in 2005-2007 (Van Way 2005; Gillies & Van Way 2006). While integrated programs using hand pulling and bottom barrier application have been shown to be effective in other systems, it is uncertain whether these 2005-2007 efforts were successful in the lake. This is due to the lack of integration of these three methods as well as the absence of a comprehensive or directed removal program at this location. Further, no follow-up treatments or efficacy surveillance was conducted after these efforts, leaving no quantitative information to evaluate the effectiveness of these actions. Anecdotal evidence suggests that the Emerald Bay Eurasian watermilfoil populations recovered in as little as two years after treatment." (Page 15, Emphasis added) "In 2007, several bottom barriers and a pontoon work boat fitted with equipment to assist in invasive plant removal in Lake Tahoe were purchased. In 2008, 46 of bottom barriers were deployed at Parson's Rock in Emerald Bay. In 2009, 966 of barriers were placed at Parson's Rock and a 334 area was treated with diver-assisted suction removal in Emerald Bay in the area of the Vikingsholm Swim Beach and Pier. Transect survey results from these efforts showed Eurasian watermilfoil began recolonization of bottom barrier treatment sites within 15 months post-treatment and that the use of barriers alone was unlikely to provide an effective strategy for controlling this plant in Emerald Bay (Brockett et al. 2013)." (Page 15, Emphasis added) "In 2010, a comprehensive removal program using a combination of benthic barriers and diver assisted suction removal was initiated at three sites in Emerald Bay which has continued through the present (Brockett et al. 2013, Shaw et al. in prep). The results of this effort indicate that by using a combination of methods under a comprehensive framework that allows for rapid response and consistent surveillance efforts, it appears that successful removal of Eurasian watermilfoil can occur. In 2014, 12 Eurasian watermilfoil plants were found and removed from Emerald Bay in spring and no plants were found in a 2014 fall survey. Surveillance efforts are ongoing. (Pages 15 and 16, Emphasis added) "Prior to 2010, a private-public collaborative aquatic plant removal effort had been initiated with	

Comment Number	Comment	Commenter
	the Lakeside Homeowners Association. This effort carried out at Lakeside utilized a clam- shell dredge and was completely unsuccessful due to the almost complete replacement of Eurasian watermilfoil by curlyleaf pondweed as a result of the clam shell dredge activity. Learning from this experience, the private-public collaboration continued, and in 2010-2012, 3716 of invasive aquatic plants were treated with diver-assisted suction removal and 3318 of bottom barriers were deployed at Lakeside Marina and Swim Area. At Lakeside Beach 85% of the treatment was accomplished with bottom barriers and 15% with diver-assisted suction removal." (Page 16, Emphasis added) Conclusion The historical efforts to control invasive aquatic plants shows that combinations of techniques can be successful with continuation of the practices. Single technique practices or implementing a practice for a single season were generally unsuccessful. The documentation of historical attempts to control invasive aquatic weeds was often inadequate, incomplete or insufficient to make a determination of weed control. The science and available literature clearly show that dead end low flow water bodies and the addition of nutrient rich discharges is the principal cause of algae blooms and the excessive growth of aquatic weeds. Efforts to eliminate algae blooms and invasive aquatic weeds, without continuation of the effort, will only allow for regrowth. Elimination of the problem can best be resolved by elimination of the cause.	
365.02	In addition, the Keys need to eliminate the largest source of nutrients for the weeds when the water is low, as it is now!!! TRPA and the Lahontan Water Board should be accommodating them at a moments notice and the Keys should be blocking off the channels and removing their largest nutrient source, the dead weeds/nutrients and seeded soil that the weeds grow out of every year (they have accumulated over 3' in areas due to their 40 years of lack of proper maintenance). This process would also deepen the channels to allow for cooler water and aeration systems to expand the air flow area. This point was brought up in several of the meetings and it was suggested that the TKPOA have emergency permits/ plans in place for when the water is low.	Elise Fett
346.01	The proposed Permit, Fact Sheet, page F-6, states, in part that: Regional Board Order No. R6T-2014-0059 requires the Discharger to develop and implement a Non-Point Source Water Quality Management Plan (NPS Plan), and an Integrated Management Plan (IMP) to address aquatic weed management. The purpose of the IMP is to optimize aquatic weed management. The Discharger has developed, implemented,	Richard McHenry

Comment Number	Comment	Commenter
	and continues to refine the NPS Plan to address potential land-based sources of nutrients contributing to aquatic weed infestations and harmful algal bloom outbreaks. In addition, the Discharger has developed, implemented, and continues to refine an IMP to address the growth of aquatic weeds utilizing non-chemical methods to control three target aquatic weeds: Eurasian watermilfoil (Myriophyllum spicatum), curlyleaf pondweed (Potamogeton crispus), and coontail (Ceratophyllum demersum). Of these target species, Eurasian watermilfoil and curlyleaf pondweed are invasive species. The Discharger has been implementing seasonal harvesting and other mechanical controls since the mid-1980s with limited effect in terms of controlling the aquatic weed infestations. Recent aquatic plant surveys (2014, 2015, 2016, 2017) show that non- native (i.e., invasive) aquatic weed populations in the Tahoe Keys Lagoons have been growing 3 rapidly with 85 percent to 90 percent of the available wetted surface in the lagoons infested with invasive aquatic weeds. The majority of aquatic weeds observed in these surveys are invasive species. (Underline Emphasis added) The Regional Board Order R6T-2014-0059, adopted in 2014, requiring control of the sources of nutrients contributing to aquatic weed infestations and algae blooms has resulted in aquatic weed populations in the Tahoe Keys Lagoons growing rapidly with 85 percent to 90 percent of the available wetted surface in the lagoons infested. Obviously, the Regional Board's Order has not been effective at controlling nutrient discharges from the residential community and their lush green lawns.	
305.061	Section II.A includes the following statement: "The Discharger has developed, implemented, and continues to refine the NPS Plan to address potential land-based sources of nutrients contributing to aquatic weed infestations and harmful algal bloom outbreaks." Yet, Tahoe Keys homeowners' yards and TKPOA's grounds surrounding the lagoons are dominated by verdantly lush, green lawns that are no-doubt heavily fertilized. Lahontan has done little through its non-point source programs to control and reduce the discharges from the many acres of green lawns that are directly adjacent to the lagoons.	Tahoe Area Group of the Sierra Club
373.11	You will always be behind the eight ball in trying to solve the problems resulting from a developer-made environmental disaster. The homeowners want a quick fix by applying herbicides which will open the door to perpetual poisoning of the lake. This is not a one-off application, despite what the TKPOA purports. They have not done everything in their power to stop the weeds from growing. They still allow fertilizer to be	Trish Friedman

Comment Number	Comment	Commenter
	used on their lawns. That's 3000 lawns front and back which creates a tremendous amount of runoff. And they have circulation pumps in their lagoons which they are not using and haven't used for years. This herbicide "test" is a trick, really, an invitation to enjoy the evils of Pandora's Box which the Tahoe Keys have falsely disguised as "this will save the lake". Instead, it's the first bite of the poison apple, the fall from grace that no one from Lake Tahoe should have to endure because of the selfishness of a group of rich and ignorant homeowners who deem boating a greater priority and value than the health and safety of the plants, animals, and people of this community. Poisoning a beautiful body of water is not the solution or answer. It will be the kiss of death for this lake if you enjoy the apple instead of using good common sense and realize that filling in those lagoons is the only way to stop this catastrophe of invasive weeds and cyanobacteria blooms. Need I mention, also, how the Tahoe Keys weed fragments have infested other areas of the lake, the Truckee River and Pyramid Lake? Until you address the real issue which is the design and layout of the lagoons and the lack of water circulation you will continue to have invasive weeds and cyanobacteria blooms. You may never ever get a handle on these issues because the structure and layout of the lagoons prohibits any real effective solutions. And any application of herbicides will not be a one time fix but perpetual poisoning of Lake Tahoe because you will always have to reapply them because the imbalanced environmental conditions will demand it because of the bad layout and design.	

Summary Comment 9.5

TRPA, Lahontan and other responsible agencies and stakeholders (including TKPOA) are requested toto inform and educate Tahoe Basin residents and their tenants; and visitors, tourists and guests on the importance of not introducing any non-native aquatic species into Lake Tahoe or it's contributing water bodies.

Summary Response 9.5

The Lahontan Water Board does not have regulatory authority to conduct boat inspections or enforce boat inspection laws on individual boaters. TRPA in coordination with the Tahoe Resource Conservation District operates a boat inspection program during the summer to inspect boats entering Lake Tahoe. The Watercraft Inspection Program is part of the Lake Tahoe Aquatic Invasive Species Program which is implemented by 40 public and private partner organizations including federal, state and local jurisdictions, research partners, public utility districts, and private marinas. The program provides information to the public on how to prepare for boat inspections and prevent the introduction of aquatic invasive species into Lake Tahoe.

Comment Table 9.5

Comment Number	Comment	Commenter
44.05	TRPA, Lahontan and other responsible agencies and stakeholders (including TKPOA) should accelerate the effort to inform and educate Tahoe Basin residents and their tenants; and visitors, tourists and guests on the importance of not introducing any non-native aquatic species into Lake Tahoe or it's contributing water bodies. This effort should include prominently advertising the potential penalties and costs of remediation for introduction of non-native aquatic species. Follow-up with prosecutions as necessary. Why? a) Non-native introductions continue, even though the effort to find and control introductions has been accelerated previously. As proof I offer the following links to UC Davis and news reports of non-native introductions in north Lake Tahoe: Spencer CMT Comments (corrected): 10/22/21 https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/publications/documents/pressrele ase/plecostomus2014.pdf [Note: link is broken] https://www.sierrasun.com/news/environment/scientists-urge-awareness-after-non-native-fish-found-in-tahoe-creek-2/ [Note: link is broken] b) Most of the marinas (including the Tahoe Keys) are vulnerable to accidental or irresponsible introductions of non-native aquatic species. Most of the marinas have habitat conditions that would support certain non-native aquatic species. These introductions can become infestations which can then spread back and forth between suitable habitat locations. c) After control of the primary infestations is achieved, it is possible for non-native aquatic invaders to be re-introduced by irresponsible residents, tenants or visitors to the Tahoe Basin. This will be very costly to continue to put the kind of energy into future control efforts due to the irresponsible or deliberate actions of a few.	Tom Spencer
102.05	TRPA, Lahontan and other responsible agencies and stakeholders (including TKPOA) should accelerate the effort to inform and educate Tahoe Basin residents and their tenants; and visitors, tourists and guests on the importance of not introducing any non-native aquatic species into Lake Tahoe or it's contributing water bodies. This effort should include prominently advertising the	Michael McGinnis

Comment Number	Comment	Commenter
	potential penalties and costs of remediation for introduction of non-native aquatic species. Follow-up with prosecutions as necessary. Why? a) Non-native introductions continue, even though the effort to find and control introductions has been accelerated previously. As proof I offer the following links to UC Davis and news reports of non-native introductions in north Lake Tahoe: https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/publications/documents/pressrelease/plecostomus2014.pdf https://www.sierrasun.com/news/environment/scientists-urge-awareness-after-non-native-fish-found-in-tahoe-creek-2/ b) Most of the marinas (including the Tahoe Keys) are vulnerable to accidental or irresponsible introductions of non-native aquatic species. Most of the marinas have habitat conditions that would support certain non-native aquatic species. These introductions can become infestations which can then spread back and forth between suitable habitat locations. c) After control of the primary infestations is achieved, it is possible for non-native aquatic invaders to be re-introduced by irresponsible residents, tenants or visitors to the Tahoe Basin. This will be very costly to continue to put the kind of energy into future control efforts due to the irresponsible or deliberate actions of a few.	
105.05	TRPA, Lahontan and other responsible agencies and stakeholders (including TKPOA) should accelerate the effort to inform and educate Tahoe Basin residents and their tenants; and visitors, tourists and guests on the importance of not introducing any non-native aquatic species into Lake Tahoe or it's contributing water bodies. This effort should include prominently advertising the potential penalties and costs of remediation for introduction of non-native aquatic species. Follow-up with prosecutions as necessary. Why? a) Non-native introductions continue, even though the effort to find and control introductions has been accelerated previously. As proof I offer the following links to UC Davis and news reports of non-native introductions in north Lake Tahoe: https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/publications/documents/pressrelease/plecostomus2014.pdf https://www.sierrasun.com/news/environment/scientists-urge-awareness-after-non-native-fish-found-in-tahoe-creek-	Tom Spencer

Comment Number	Comment	Commenter
	2/ b) Most of the marinas (including the Tahoe Keys) are vulnerable to accidental or irresponsible introductions of non-native aquatic species. Most of the marinas have habitat conditions that would support certain non-native aquatic species. These introductions can become infestations which can then spread back and forth between suitable habitat locations. c) After control of the primary infestations is achieved, it is possible for non-native aquatic invaders to be re-introduced by irresponsible residents, tenants or visitors to the Tahoe Basin. This will be very costly to continue to put the kind of energy into future control efforts due to the irresponsible or deliberate actions of a few.	
110.05	TRPA, Lahontan and other responsible agencies and stakeholders (including TKPOA) should accelerate the effort to inform and educate Tahoe Basin residents and their tenants; and visitors, tourists and guests on the importance of not introducing any non-native aquatic species into Lake Tahoe or it's contributing water bodies. This effort should include prominently advertising the potential penalties and costs of remediation for introduction of non-native aquatic species. Follow-up with prosecutions as necessary. Why? a) Non-native introductions continue, even though the effort to find and control introductions has been accelerated previously. As proof I offer the following links to UC Davis and news reports of non-native introductions in north Lake Tahoe: Spencer CMT Comments (corrected): 10/22/21 https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/publications/documents/pressrelease/plecostomus2014.pdf https://www.sierrasun.com/news/environment/scientists-urge-awareness-after-non-native-fish-found-in-tahoe-creek-2/ b) Most of the marinas (including the Tahoe Keys) are vulnerable to accidental or irresponsible introductions of non-native aquatic species. Most of the marinas have habitat conditions that would support certain non-native aquatic species. These introductions can become infestations which can then spread back and forth between suitable habitat locations. c) After control of the primary infestations is achieved, it is possible for non-native aquatic invaders to be re-introduced by irresponsible residents, tenants or visitors to the Tahoe Basin. This will be very costly to continue to put the kind of energy into future control efforts due to the irresponsible or deliberate actions of a few.	Joshua Willard
307.03	4) TRPA, Lahontan and other responsible agencies and stakeholders (including TKPOA) should accelerate the effort to inform and educate Tahoe Basin residents and their	Tom Spencer

Comment Number	Comment	Commenter
	tenants; and visitors, tourists and guests on the importance of not introducing any non-native aquatic species into Lake Tahoe or it's contributing water bodies. This effort should include prominently advertising the potential penalties and costs of remediation for introduction of non-native aquatic species. Follow-up with prosecutions as necessary. Why? a) Non-native introductions continue, even though the effort to find and control introductions has been accelerated previously. As proof I offer the following links to UC Davis and news reports of non-native introductions in north Lake Tahoe: https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/publications/documents/pressrelease/plecostomus2014.pdf https://www.sierrasun.com/news/environment/scientists-urge-awareness-after-non-native-fish-found-in-tahoe-creek-2/ b) Most of the marinas (including the Tahoe Keys) are vulnerable to accidental or irresponsible introductions of non-native aquatic species. Most of the marinas have habitat conditions that would support certain non-native aquatic species. These introductions can become infestations which can then spread back and forth between suitable habitat locations. c) After control of the primary infestations is achieved, it is possible for non-native aquatic invaders to be re-introduced by irresponsible residents, tenants or visitors to the Tahoe Basin. This will be very costly to continue to put the kind of energy into future control efforts due to the irresponsible or deliberate actions of a few.	

Summary Comment 9.6

What kind of mitigation work has been or will be done to repair damage to the wet meadow/riparian complex along the Upper Truckee?

Summary Response 9.6

Meadow restoration of the Truckee River Watershed is not within the scope of the CMT. Please reference the California Tahoe Conservancy's Upper Truckee River and Marsh Restoration Project at https://tahoe.ca.gov/upper-truckee-marsh/.

Comment Table 9.6

Comment Number	Comment	Commenter
1.13	What kind of mitigation work has been or will be done to repair damage to the wet meadow/riparian complex along the Upper Truckee?	James Gatzke

Summary Comment 9.7

The commenter requests that climate change remains at the forefront of the Lahontan Water Board's future actions.

Summary Response 9.7

The Lahontan Water Board is committed to addressing the impacts of climate change, particularly where the Water Board believes water quality and beneficial use protection in the face of climate change will be most effective.

Comment Table 9.7

Comment Number	Comment	Commenter
61.02	Thank you for doing your part to keep our air, land, and water clean, and free of pollutants/harmful chemicals. Please make sure that climate change remains at the forefront of everything you do now. If drastic action is not taken soon, life as we know it will cease to exist. Climate change is occurring exponentially faster than scientists have predicted. Unforeseen problems are adding to this calamity.	Linda Murphy

Summary Comment 9.8

What actions were taken by the Lahontan Water Board under Order No. R6T-2014-0059? The history of Lahontan's actions regarding the lagoon waters, which are waters of the state and the U.S., should be included in the Fact Sheet.

Summary Response 9.8

40 Code of Federal Regulations part 124.8 and part 124.56 do not require a historical outline of actions regarding a different Order and discharge. However, Order No. R6T-2014-0059 in Section 2 (pp1) describes relevant permit history in the Tahoe Keys since 1975.

Comment Table 9.8

Comment Number	Comment	Commenter
305.06	Page F-5 states: "The lagoon water treatment and water circulation facilities were built for water quality improvements following construction of the Facility. The lagoon water treatment facility using chemical coagulation and clarification is not currently in operation. The water circulation facility is operational and Lahontan Water Board requirements for its operation are specified in Order No. R6T-2014-0059 issued to the Discharger." What actions were taken by the Water Board previous to Order No. R6T-2014-0059? The history of Lahontan's actions regarding the lagoon waters, which are	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	waters of the state and the U.S., should be included in the Fact Sheet.	

Summary Comment 9.9

The Lahontan Water Board is urged to reject the herbicide application and prohibit any fertilizer application of any kind withing the Tahoe Keys watershed, establish an aquatic invasive species harvesting that minimizes fragments, and limit the boating in an out of the Keys until the nutrient standards are met.

Summary Response 9.9

The CMT proposed project is a test that is designed to provide information about what methods are most effective to control aquatic invasive plants in the Tahoe Keys Lagoons. See Summary response 2.6.

The Tahoe Keys Property Owners Associations informs it members to avoid using fertilizers that contain phosphorus and has informed its members that it eliminated fertilizer use from home owner association landscape services. Also, stormwater and landscape irrigation were estimated to be small components of overall nutrient loading in the main lagoon. Refer to Summary response 6.2.

See Summary response 9.1 regarding restrictions on boating.

See summary response 9.5 regarding boat inspections.

For an explanation on why Lahontan Water Board is not required to revise, improve, or implement all non-point source controls prior to allowing a point source discharge, see summary response 4.5.

Comment Table 9.9

Comment Number	Comment	Commenter
361.03	At present, I urge the Board to reject the herbicide application, which is merely a band aid on a broken leg, and to require TKPOA and its members to act immediately to bring the nutrient levels in Keys waters within Lake Tahoe WQOs. Possible actions include: Prohibition of any fertilizer applications of any kind within the Keys watershed, and potentially requiring removal of all landscaping, such as lawns, that conventionally receives such applications. I hold an active C-27 license and have been growing native and native adapted plants in the region for 25 years and can attest that even the granitic sandy soils in our region are satisfactory for landscaping without any fertilizer applications whatsoever, though it requires matching species selections to the prevailing physical ecology, which landscapers should be	Adrian Juncosa

Comment Number	Comment	Commenter
	doing anyway. Establishment of a program of regular AIS harvest by means that minimize fragmentation. Consistent with Order R6T-2014-0059, this means export to composting facilities outside the basin. It's neither easy nor inexpensive to do so, but that's the consequence of not adequately addressing the problem for such a long period of time. There may be direct means of removing particularly nutrient rich sediments, but given the measures needed to do that while protecting the Lake against sediment pulses, this could be even more costly to achieve. Given the high proportion of commercial and private watercraft usage that originates within the Keys (I recall a figure of 25 percent of all boating use of the Lake), in order to strongly incentivize immediate and effective action, travel of any watercraft of any kind should be prohibited between the infested Keys waters and the Lake itself until either nutrient standards are achieved or there is demonstrable progress with a known, imminent achievement date. Relaxation of this prohibition should be subject to documentation, public review, and further hearing. The purpose of the Water Quality Control Board is to protect beneficial uses. The three points above would do exactly that. I recognize that they are onerous and potentially costly measures, but failure to implement rigorous nutrient controls places the private and commercial interests of a very small segment of the public above those of the Board's purpose and the interests of the general public and ecosystem at large. The supporting documentation clearly implies that the other infestations of certain AIS around Lake Tahoe originated from the main source of biological contamination within the Keys, so the general public is already bearing ecological and economic costs resulting from inaction within the Keys. It is time for those more narrow interests to do their part, whatever the cost to achieve an actual and lasting remedy.	

Summary Comment 9.10

The commenter questions why work does not occur in the lagoons during low water conditions and what is in place to prevent runoff from roads and lawn fertilizers from entering the Lake.

Summary Response 9.10

The Lahontan Water Board is unable to ascertain from the comment what weed control activity the commenter believes is not being utilized in the low water season. The Tahoe Keys Property Owner Association conducts non-point source control and aquatic invasive weeds control methods during the year. The discharger has submitted an

application to apply aquatic herbicides. The discharger is not allowed to apply aquatic herbicides unless the Lahontan Water Board grants a prohibition exemption and issues an NPDES permit. For activities requiring a permit from the U.S. Army Corps of Engineers, an application would need to be submitted by the discharger. A formal request to conduct work in Tahoe Keys Lagoon that requires a U.S. Army Corps of Engineers permit has not been submitted.

The Tahoe Keys Property Owner Association informs their homeowners not to use fertilizers containing phosphorus and directs homeowner association landscaping services not to use fertilizers that contain phosphorus. On why stormwater and landscape irrigation were estimated to be small components of overall nutrient loading in the main lagoon, see Summary response 6.2.

Comment Table 9.10

Comment Number	Comment	Commenter
363.02	Why have the weeds not been worked while we are in a low water season? Is there anything in place to prevent road or fertilized lawns from contributing to the issue?	Benita Luke

Summary Comment 9.11

Greater regulation with the potential of penalties against the Tahoe Keys Property Owners Association is requested to keep the association focused on continued maintenance of the aeration system.

Summary Response 9.11

Enforcement of alleged violations of Regional Board Order No. R6T-2014-0059 are not a component of the proceeding before the Board. However, the enforcement actions of Water Boards are intended to be made consistent statewide through the Water Quality Enforcement Policy. The goal of Water Quality Enforcement Policy (Policy) is to protect and enhance the quality of the waters of the state by defining an enforcement process that addresses water quality problems in the most fair, efficient, effective, and consistent manner. The Water Boards do not utilize independent consultants to conduct enforcement.

On why stormwater and landscape irrigation were estimated to be small components of overall nutrient loading in the main lagoon, see Summary response 6.2.

Comment Table 9.11

Comment Number	Comment	Commenter
365.03	The source of additional nutrients, such as from lawn and road runoff that flow directly into the water of the Keys must also be stopped. I have pictures of the enormous weed and algae blooms located at holes in the metal sea wall where the swale in the lawn drains into the Keys water. It is illogical to consider	Elise Fett

Comment Number	Comment	Commenter
	these nutrients are “negligible” just because of the absurd amount of nutrients that the TKPOA has allowed to accumulate over the soil in their channels for 40 years. It is also important to note that the lack of maintenance has not only been a long-term issue, but a recent one as well. Not fixing the bubble curtain for the first half of this last summer and the aeration system in spring are just a few examples of the TKPOA maintenance issues that need to be resolved and regulated. From the past experiences, the threat of fines for them to keep their systems running and having an independent consultant responsible for policing the systems is necessary.	

Summary Comment 9.12

Scientific reports used to develop theories are outdated by three to five years and do not account for ash from wildfires.

Summary Response 9.12

The impacts of ash and other constituents of wildfires on Lake Tahoe are out of scope of the CMT. The commenter has not identified how additional constituents from wildfires, different than the residual aquatic herbicides that are the subject of the NPDES permit, would invalidate the scientific reports relied upon in the NPDES permit.

Comment Table 9.12

Comment Number	Comment	Commenter
383.05	In addition, it’s also a bit shocking to see the scientific reports which are outdated by three to five years as the anchors to theories that are already way off point, given also the massive wildfire impacts of the ash and pollutants of the Caldor and Tamarack Fires of the summer of 2021.	Trish Friedman

Category 10 Harmful Algal Blooms

Summary Comment 10.1

Monitoring only for cyanotoxins would not necessarily indicate whether or not cyanobacteria are present. Herbicides will only increase cyanobacteria blooms. HABs would be mitigated by early timing of the test, aeration, and the use of lanthanum-modified clay. The use of lanthanum-modified clay, however, is only contingent upon “visual inspection of a treated area indicates a possible HAB.” Visual inspection for the occurrence of HABs does not reliably determine the presence of HABs.

Summary Response 10.1

Cyanobacteria, also known as blue-green algae, occur naturally in freshwater and estuarine waterbodies. Cyanobacteria have been around for billions of years and are natural components of ecosystems. Cyanobacteria can produce harmful compounds, such as cyanotoxins and taste and odor compounds, that cause health risks to humans and animals. When certain conditions are favorable for these organisms, cyanobacteria can multiply rapidly, causing “blooms.” When a bloom poses a risk to humans, animals, and the environment, it is referred to as harmful algal bloom (HAB).

State agencies participating in the California Cyanobacteria and Harmful Algal Bloom (CCHAB) Network, including the State Water Resources Control Board (SWRCB), Cal EPA Office of Environmental Health Hazard and Assessment (OEHHA), and California Department of Public Health (CDPH), developed a HAB Response Plan for responding to HABs in recreational waters. Under the HAB Response Plan, surveillance and general awareness is Step 1, with the recommended action that responding organizations (Water Boards, land/water manager, local health agency and/or collaborator) should visually inspect publicly accessible rivers, lakes, and reservoirs during recreation season for potential HABs, including those in the water column and mats attached to the bottom, floating, or stranded along the shore. Subsequent steps include field screening (Step 4) and sampling for lab analysis (Step 5). Visual inspection is one criterion used to determine when to implement the use of lanthanum-modified bentonite clay as a mitigation measure for HABs.

Currently, there are no federal or state regulatory standards for cyanotoxins in surface waters or drinking water. The SWRCB, Division of Drinking Water (DDW) establishes notification levels, or health-based advisory levels, for chemicals in drinking water that lack maximum contaminant levels (MCLs). When drinking water notification levels are exceeded, the drinking water system is required to notify the local governing body of the local agency in which the users of the drinking water reside. On May 3, 2021, the OEHHA submitted notification level recommendations to the DDW for microcystins, cylindrospermopsin, anatoxin-a, and saxitoxin. These recommendations are currently being evaluated by the DDW. As described in the EIR/EIS, there are no direct potable water intakes within or adjacent to the Tahoe Keys lagoons and groundwater supply well intakes are far below the area of surface water and ground water interaction.

The CMT would test aquatic weed control methods and is not designed to be a test of cyanobacteria control methods. Monitoring during and after treatments would include observations for HAB indicators, any HABs observed at test sites would be confirmed with sample analyses. If there is confirmation that phosphorus is above the water quality objective and higher than at the control sites, then Lanthanum modified bentonite clay (e.g., Phoslock) may be used as a treatment to lower concentrations of phosphorus, a nutrient essential to cyanobacteria growth. Phoslock could be used to effectively starve algae of an essential nutrient. Phoslock does not lyse or otherwise damage cyanobacteria cell membranes. Use of other algaecides are not proposed. Visual inspections for evidence of HABs would occur at test sites and surrounding areas during frequent monitoring of water quality and treatment effectiveness. TKPOA will collect samples for laboratory analyses anytime visual signs of HABs occur at test sites or other areas of the lagoons. Cyanobacteria monitoring is included in the NPDES monitoring reporting program and notification procedures are associated with the State Board guidelines that TKPOA staff are already following.

Water quality objectives for cyanobacteria are not included in the Basin Plan. Therefore, receiving water limitations for cyanobacteria are not included in the NPDES permit. See response to comment 11.1 for further discussion on the limitations in the NPDES Permit. The cyanobacteria indicators listed in the NPDES permit, under Section VII, are criteria that must be met to implement the use of lanthanum-modified bentonite clay as a mitigation measure for the CMT project. The indicator levels of Microcystins ≥ 0.8 µg/L, Anatoxin-a is detected, and cylindrospermopsin ≥ 1.0 µg/L are cyanotoxin trigger levels developed by the CCHAB Network to protect human and animal (e.g. dogs and livestock) health from HABs and provide voluntary guidance for response to HABs in recreational inland waters.

Aeration during plant decomposition would improve aerobic microbial degradation of herbicide active ingredients and reduce the risk of HABs by breaking up thermal stratification, reducing near-surface water temperature, and stabilizing pH conditions.

It is correct that HABs have been documented in the spring, including the detection of cyanotoxins in samples from May 10, 2018 and June 4, 2019. TKPOA will continue their existing monitoring program and warn people if HABs are present based upon state of California guidelines. Contractors and monitoring personnel at the site would be trained in recognizing the visual signs of potential HABs. Cyanobacteria monitoring is in the NPDES monitoring reporting program and notification procedures are associated with the State Board guidelines that Tahoe Keys Property Owners Association are already following.

See Summary Response 10.2 regarding cyanobacteria resistance and tolerance to herbicides.

Comment Table 10.1

Comment Number	Comment	Commenter
312.07	O5. Under Section VII of the Waste Discharge Requirements, the draft permit states that the discharger will monitor for the presence of hazardous algal blooms by testing for nutrients, chlorophyll and the cyanotoxins presented in Table 1 below: TABLE 1: CYANOTOXIN INDICATORS Cyanotoxin Indicator Level At the present time it is not known what causes cyanobacteria to release their toxins into the environment. We were not able to determine whether or not the analytical method will include a step to lyse algal cells that may be present and thus release any internal toxins. It is possible that cyanobacteria may be present in the lagoons but have not released toxins. Monitoring only for cyanotoxins would not necessarily indicate whether or not cyanobacteria are present. If there is any indication of an increase in algal cells (visual, increase in chlorophyll-a) we recommend that several monitoring events include total algal cells and algal speciation in addition to monitoring for cyanotoxins. In addition, in May 2021, the California Office of Environmental Health Hazard Assessment (OEHHA) released recommended drinking water Notification Levels for the cyanotoxins presented in Table 2 below: Table 2: OEHHA Recommended Cyanotoxin Notification Levels Cyanotoxin Recommended Notification Level Microcystins 0.03 µg/L Anatoxin-a 4 µg/L Cylindrospermopsin 0.3 µg/L Saxitoxin 0.6 µg/L. We recommend that saxitoxin be included in the list of cyanotoxins monitored, and that the OEHHA recommended notification levels be used as caution triggers instead of the values presented in Table 1.	Dan Askenaizer, D. Env.
383.08	The urgency with which the Tahoe Keys is pushing for an herbicide permit is frightening given how dire the cyanobacteria issue is in the lagoons and around the lake. Herbicides will only increase cyanobacteria blooms. Already there have been two blooms this year in other areas. Since no one has taken these blooms seriously enough because the Lake Tahoe scientists do not have adequate training and education in how to study and prevent these blooms you must stop this herbicide permit and get these blooms handled. I make this assertion because not one of your scientists has pulled a test for the BMAA toxin. I know this because I spoke to the lab and not only did you not request the test, but you also never asked anyone there if there were any other labs that could test for this toxin since Tim's lab could not do so. In my opinion, you will need assistance from	Trish Friedman

Comment Number	Comment	Commenter
	Jim Haney and Elijah Stommel from New Hampshire. They and the team from Brain Chemistry Labs in Wyoming have the knowledge and solutions and labs to study these blooms to see how they affect the human and animal population as well as how to stop the blooms	
346.18	Cyanobacteria The Tahoe Keys Lagoons Aquatic Weed Control Methods Test July 6, 2020 Draft EIR/EIS beginning on page 3.2-14, Issue EH-6: Harmful Algal Blooms (HABs) states in part that: “Under certain environmental conditions in freshwater ecosystems, single celled photosynthetic bacteria, called “cyanobacteria,” can increase rapidly in biomass resulting in a “harmful algal bloom” (HAB), which in some cases can produce toxins (Anderson-Abbs et al. 2016; USEPA 2015a). HABs can have negative impacts on the environment and raise serious concerns for drinking water sources, recreational use, pets, wildlife, and livestock (Anderson-Abbs et al. 2016; USEPA 2015a). The acute effects of contact recreational exposure to HABs from activities like swimming, jet skiing, etc., can result in a wide range of symptoms in humans including skin and eye irritation, fever, headaches, muscle and joint pain, blisters, stomach cramps, diarrhea, vomiting, mouth ulcers, and allergic reactions (USEPA 2015b). Some studies have suggested that environmentally-relevant low doses of cyanotoxins play a role in the development of neurodegenerative diseases like Alzheimer’s and Parkinson’s diseases (Holtcamp 2012; Takser et al. 2016). Wildlife, pets, and livestock illnesses and deaths have been attributed to HABs in affected inland waterbodies (Stewart et al. 2008). The toxicity of a particular bloom is complex, determined by the mixture of cyanobacteria species present and the variation in strains with toxic and nontoxic genotypes involved (WHO 1999). In recent years, HABs and associated cyanotoxins have gained national attention due to increases in the frequency and severity of blooms, and their impacts on drinking water sources (Anderson-Abbs et al. 2016). The conditions that cause cyanobacteria to produce cyanotoxins are not well understood (USEPA 2015a). For example, even when cyanobacteria capable of producing toxins are present, they may not actually produce toxins under all environmental conditions (USEPA 2014a). Also, cyanotoxins can occur in the absence of a visible bloom as not all blooms are visible (USEPA 2015a). It is not possible to determine solely upon visual observation if a bloom is producing toxins (USEPA 2015a). When blooms do occur, the risk of cyanotoxin	Richard McHenry

Comment Number	Comment	Commenter
	contamination of the surface water increases, thus increasing potential risk to drinking water sources (USEPA 2014a). Factors that influence the occurrence of cyanobacteria blooms can include excess nutrient (nitrogen and phosphorus) loadings and concentrations, slow-moving surface water, high water temperature, high intensity and duration of sunlight, water column stratification, changes in water pH, and occurrence of trace metals (USEPA 2015a; 2019). Some of the factors that influence the occurrence of blooms could be affected by the application of aquatic herbicides to control aquatic weeds in the Tahoe Keys (e.g., sunlight intensity, nutrient availability). Additionally, some of the management practices used during the CMT could minimize the potential for such blooms." Page 3.2-4 of the Draft EIR states that: "California has guidelines for cyanobacteria and cyanotoxins in recreational inland waters. Caution levels for human and animal health are triggered by visual indicators, cyanobacteria cell density greater than 4,000 cells/mL, and cyanotoxin levels of 0.8 µg/L for total microcystins, and one µg/L for anatoxin-a or cylindrospermopsin. Warnings are posted if cyanotoxin concentrations reach six µg/L for total microcystins, 20 µg/L for anatoxin-a, or four µg/L for cylindrospermopsin. Danger warnings are posted if cyanotoxin concentrations reach 20 µg/L for total microcystins, 90 µg/L for anatoxin-a, or 17 µg/L for cylindrospermopsin." The proposed Permit fails to monitor and/or include Receiving Water Limitations for cyanobacteria and cyanotoxins despite the presence of nutrients, slow moving and stagnant water, high temperature waters and possible pH changes which could impact their presence. These factors could also be influenced by the application of aquatic herbicides. The California Water Code (CWC), Section 13377 states in part that: "…the state board or the regional boards shall…issue waste discharge requirements… which apply and ensure compliance with …water quality control plans, or for the protection of beneficial uses…" Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Failure to include an effluent limitation in the proposed permit violates 40 CFR 122.44 and CWC 13377. Monitoring requirements are inadequate in accordance with Federal regulations, 40 CFR §§ 122.44(i) and 122.48, which require that NPDES permits to include	

Comment Number	Comment	Commenter
	requirements to monitor sufficient to assure compliance with permit limitations and requirements.	
305.16	Impact Issue EH-6 in Table ES-1 of the DEIR/DEIS is "Harmful Algal Blooms (HABs)". HABs would be mitigated by early timing of the test, aeration, and the use of lanthanum-modified clay. The use of lanthanum-modified clay, however, is only contingent upon "visual inspection of a treated area indicates a possible HAB." Visual inspection for the occurrence of HABs does not reliably determine the presence of HABs15. The use of aeration for mitigation is inadequate because it does not address the rapid addition of nutrients from the dead weeds to the water column. This pulse of nutrients will promote the rapid development of HABs, including deadly cyanobacteria. The MMRP and the DEIR/DEIS has ignored the cyanobacteria-related risks from herbicide use, including: (a) cyanobacteria become resistant to herbicides where their use is prevalent (Narusaka et al. 1998), (b) Cyanobacteria have a higher tolerance to herbicides than other phytoplankton, therefore their abundance will increase with herbicide use (Powell et al. 1991, Forlani et al. 2008, Perez et al. 2011, Pannard et al 2009), (c) Cyanobacteria's use of nutrients bound to herbicides stimulate their growth (Bai et al. 2014), and (d) The presence of herbicides in elevated water temperatures increases cyanobacteria growth (Berard et al, 1999)16.	Tahoe Area Group of the Sierra Club
383.12	The dire situation with the cyanobacteria has been ignored by your scientists. I say this because they have refused to test for the BMAA toxin and the deadly aerosolized version. I reached out to Jim Haney and Elijah Stommel who have offered to help us measure the toxicity of the cyanobacteria and you have completely ignored their offers. In fact, after speaking to one of the members of TRPA last week, I was told that your scientists and PhDs felt that it did not warrant testing! Really? You have so many people who are ill or have died at Lake Tahoe that it is stupid not to test for this toxin. Are you afraid of what you will find if you do? Again, I am asking that you reach out to Jim Haney, Elijah Stommel and Paul Cox. I have submitted their research and contact info to you over the years. They are all interested in helping us with the cyanobacteria problem and figuring out who is ill in our community. I feel that this issue is as equally pressing as the weed issue. Please take this seriously and do the testing for the BMAA toxin. Don't issue the herbicide permit. It will be the end of Lake Tahoe. The weeds and blooms are now all over the lake and with the ignorant mindset that	Trish Friedman

Comment Number	Comment	Commenter
	“herbicides are the answer to these weed and blooms” you will effectively continue the destruction of Lake Tahoe that the Tahoe Keys have already started.	

Summary Comment 10.2

Aquatic herbicides will exponentiate the already toxic cyanobacteria blooms and cause the weeds to mutate and become stronger as has been proven over the years in the lakes in Minnesota, Big Bear, Clear Lake etc. I have provided the articles and documents that support this statement in my previous submittals, but will be happy to provide them yet again if you have not read them already or do not have access to them.

Summary Response 10.2

Only a one-time testing of aquatic herbicides is proposed in small areas as part of the CMT, therefore the risk of aquatic weed mutation and development of a resistance to the herbicides was considered unlikely as a result of this limited test.

Comment Table 10.2

Comment Number	Comment	Commenter
365.05	Aquatic herbicides will exponentiate the already toxic cyanobacteria blooms and cause the weeds to mutate and become stronger as has been proven over the years in the lakes in Minnesota, Big Bear, Clear Lake etc. I have provided the articles and documents that support this statement in my previous submittals, but will be happy to provide them yet again if you have not read them already or do not have access to them.	Elise Fett

Summary Comment 10.3

The Regional Board fails to assess the existing causes of dead-end stagnant water bodies and the ongoing flow of nutrients which are the principal cause of algae blooms and growth of invasive aquatic weeds. The Regional Board has not verified that a single use of herbicides will be permanently effective at eliminating future growth of invasive aquatic weeds.

Summary Response 10.3

As described in Appendix F and illustrated on Figures 3.3.4-16 and 3.3.4-19 of the EIR/EIS, total phosphorus (TP) and total nitrogen (TN) loading from stormwater and landscape irrigation were estimated to be small (<13% of TP and 7% of TN) components of overall nutrient loading in the Main Lagoon. As such, even complete elimination of these nutrient loading sources (e.g., replacing grass with synthetic turf) would not be expected to control aquatic weeds or algal blooms in the lagoon. The TKPOA

implements a nonpoint source water quality management plan to reduce pollutant loading from land-based sources (TKPOA 2018c, TKPOA 2020b). The EIR/EIS Section 2.6.1 describes this nonpoint source management plan.

Due to the unpredictability of HABs and when cyanotoxins are produced, mitigation measures and resource protection measures were identified to make conditions less favorable for HABs (e.g., aeration systems to increase water circulation and cool near-surface waters, treating plants when they are small to minimize biomass releasing nutrients). A bentonite clay/lanthanum product was also prescribed to remove phosphorus from the water column if HABs are observed at test sites.

See Summary Response 11.13 regarding the single use of herbicides for the proposed project. It is important not to confuse a short-term test of herbicides with a long-term application of herbicides under an aquatic weeds management program. The project is designed to see if Group B aquatic weed control methods can be effective in maintaining and improving on the aquatic weed infestation reductions accomplished from testing Group A methods, including aquatic herbicides. Any future decision about long-term management of aquatic weeds could be based on the results of the proposed control methods test, but is not a component of this proposed project, and would be the subject of a separate public and environmental review process (for which public comment would again be taken) before proceeding.

Comment Table 10.3

Comment Number	Comment	Commenter
346.17	The Regional Board fails to assess the existing causes of dead-end stagnant water bodies and the ongoing flow of nutrients which are the principal cause of algae blooms and growth of invasive aquatic weeds. The Regional Board has not verified that a single use of herbicides will be permanently effective at eliminating future growth of invasive aquatic weeds.	Richard McHenry
76.03	Didn't a bloom take place right outside the keys entrance? What about run off from lawns?	Carolyn Willette

Category 11 NPDES Permit Requirements

Summary Comment 11.1

The permit does not include all the WQOs for Lake Tahoe that are used to determine compliance with the requirement that Receiving Water Limitations must be in "compliance with receiving water limitations at all times outside of the treatment areas" and, the permit should include acute and chronic toxicity testing.

Summary Response 11.1

Section 122.44(d)(1)(i) of 40 C.F.R. mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR. Section 122.44(k)(3) of 40 C.F.R. allows the use of other requirements such as BMPs in lieu of numeric effluent limits if the latter are infeasible. As discussed in Attachment F of the NPDES permit, it is infeasible for the Lahontan Water Board to establish numeric effluent limitations in the NPDEs permit. The effluent limitations contained in this Order are narrative and require development and implementation of BMPs to comply with receiving water limitations.

To protect all designated beneficial uses of the receiving water, the most stringent (lowest) and appropriate criteria is selected as the receiving water limitation for a particular water body and pollutant. In many cases, water quality standards include narrative, rather than numerical, water quality objectives. In such cases, numeric water quality limits from the literature or publicly available information may be used or developed from such information to ascertain compliance with water quality objectives. The permit would authorize the discharge of aquatic Herbicide Residues, Rhodamine WT and Lanthanum-Modified Clay. Receiving water limitations noted in section V.A.2 of the permit apply to the discharge and include applicable water quality objectives from the Basin Plan. An express numeric receiving water limitation for every water quality objective is not required. Monitoring includes water quality parameters and objectives that may be affected by the discharge of residual aquatic herbicides, rhodamine aquatic dye and lanthanum modified clay. The monitoring program is sufficient to determine compliance with permit limitations.

When the Regional Board had determined that the discharge has reasonable potential to cause an exceedance of the narrative toxicity objective, the Clean Water Act does not require the inclusion of whole effluent toxicity limitations when the permitting authority demonstrates that chemical-specific limits for effluent are sufficient to maintain applicable water quality standards. (40 C.F.R. 122.44 (d)(1)(v).) The Discharger does not propose to use endothall in any treatment area immediately adjacent to, or sharing a boundary

with, a triclopyr treated treatment area and vice versa, and so no synergistic effects are expected.

Regarding acute and chronic toxicity, please See Response to Comment 11.2.

Comment Table 11.1

Comment Number	Comment	Commenter
305.066	Page F-8, under section II.B.1, repeats the requirement that the "discharger must demonstrate compliance with receiving water limitation at all times outside of the treatment areas" yet the permit does not include all the WQOs for Lake Tahoe that are used to determine compliance with this requirement. Also, unless the minimal amount of sampling required in this permit is increased to at least the suggested levels in these comments, this requirement will be meaningless.	Tahoe Area Group of the Sierra Club
305.074	Page F-28 states: "This Order contains receiving water limitations based on the Basin Plan's numerical and narrative water quality objectives for bio-stimulatory substances, chemical constituents, color, temperature, floating material, settleable substances, suspended material, tastes and odors, and toxicity." This statement is not correct. The Order contains RWLs for only two of these objectives, chemical constituents and temperature. As previously stated, all of these water quality objectives should be included in the sampling plan, but are not. The omission of these water quality objectives must be corrected. The revised monitoring plan must include toxicity testing, both acute and chronic.	Tahoe Area Group of the Sierra Club
305.077	Section VI.C on page F-32 lists receiving water monitoring requirements for temperature, pH, turbidity, dissolved oxygen, and chemicals/chemical residues. However, that is not the entire list of water quality objectives in the Basin Plan for Lake Tahoe. The WQOs that apply to all surface water bodies in the Lahontan region are: Ammonia, Coliform Bacteria, Biostimulatory Substances, Chemical Constituents, Total Residual Chlorine, Color, Dissolved Oxygen, Floating Materials, Oil and Grease, Non-degradation of Aquatic Communities and Populations, pH, Radioactivity, Sediment, Settleable Materials, Suspended Materials, Taste and Odor, Temperature, Toxicity, and Turbidity. The WQOs specific to Lake Tahoe are: algal growth potential, biological indicators, clarity, electrical conductivity, pH, suspended sediment, transparency, turbidity, total dissolved solids (TDS), chloride, sulfate boron, total nitrogen, total phosphorus, and total iron. The draft permit only includes 5 of the 31 constituents on the above two lists. This must be corrected.	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
305.036	Section VIII.C.2.a of the draft Permit requires additional investigations when monitoring shows exceedance of any receiving water limitation. However, the RWLs for herbicide levels, 100 ug/l and 400 ug/l, are too high to prevent harm to aquatic life, as documented in the comment on section V.A.1. Also, the list of RWLs in section V.A.2 is incomplete; some of the RWLs for pollutants with WQOs in the Basin Plan for Lake Tahoe are not included. In addition, the requirement that TKPOA "demonstrate compliance with receiving water limitations outside the treatment areas" cannot be satisfied by the minimal sampling frequencies and minimal numbers of sampling locations proposed in the draft permit.	Tahoe Area Group of the Sierra Club
305.029	Section V states: "Receiving water limitations (RWLs) are a required part of this Order and are based on water quality objectives contained in the Basin Plan." If that is the case, then monitoring of all WQOs listed in the Basin Plan for Lake Tahoe should be required; it is not. The WQOs specific to Lake Tahoe are: algal growth potential, biological indicators, clarity, electrical conductivity, pH, suspended sediment, transparency, turbidity, total dissolved solids (TDS), chloride, sulfate boron, total nitrogen, total phosphorus, and total iron. The WQOs that apply to all surface water bodies in the Lahontan region are: Ammonia, Coliform Bacteria, Biostimulatory Substances, Chemical Constituents, Total Residual Chlorine, Color, Dissolved Oxygen, Floating Materials, Oil and Grease, Non-degradation of Aquatic Communities and Populations, pH, Radioactivity, Sediment, Settleable Materials, Suspended Materials, Taste and Odor, Temperature, Toxicity, and Turbidity. The draft permit only includes 5 of the 31 constituents on the above two lists. This must be corrected. The monitoring requirements of a permit must be sufficient to determine permit compliance / non-compliance. (See, 40 C.F.R. § 122.44(i)(1) (every permit "shall include" monitoring "[t]o assure compliance with the permit limitations"]; NRDC v. County of L.A. (9th Cir. 2013) 725 F.3d 1194, 1209 [same].)	Tahoe Area Group of the Sierra Club

Summary Comment 11.2

Receiving water limitations for endothall, triclopyr and rhodamine WT in section V.A.1 are too high; toxic effects are known to occur at levels below these limitations.

Summary Response 11.2

Endothall is proposed to be applied to obtain a 2 mg/L (i.e., 2 ppm) concentration of endothall within test sites. The maximum allowable rate of application of endothall per

the approved pesticide label is 5 mg/L (i.e., 5 ppm). Triclopyr TEA Triclopyr is proposed to be applied to obtain a 1 mg/L (i.e., 1 ppm) concentration of triclopyr within test sites. The maximum allowable rate of application of triclopyr per the approved pesticide label is 2.5 mg/L (i.e., 2.5 ppm). Rhodamine WT is proposed to be applied to obtain a 10 µg/L or less concentration of Rhodamine WT in each aquatic herbicide treatment area. A discrete discharge of aquatic herbicide residues and aquatic dye would not result in chronic toxicity. Chronic toxicity tests are conducted with the test material at a constant concentration over the period of the test. For a single, discrete discharge, the environmental concentration of rhodamine aquatic dye, endothall and triclopyr would decline in concentration because of diffusion and chemical degradation. As such, acute toxicity, not chronic toxicity, endpoints are applicable to a single, discrete discharge.

As noted in the permit, proposed rhodamine aquatic dye application rates are seventeen thousand times lower than the most sensitive reported acute aquatic life (e.g., fish, invertebrates) toxicity concentration (i.e., LC50) and, for endothall and triclopyr, the application rates are four times to ten times lower than the most sensitive reported acute aquatic life (e.g., fish, invertebrates) toxicity concentration (i.e., LC50), respectively.

A single discharge of residual aquatic herbicides would not exceed acute aquatic life toxicity thresholds in receiving water. In regard to using the narrative toxicity objective to define chemical specific limitations, the most sensitive receptor for the proposed herbicides and their residuals is associated with human activity (e.g. injestion). And consistent with the chemical constituent objective, receiving waters cannot contain concentrations of Endothall in excess of the MCL. During the treatment event RWLs are not expected to be exceeded. Any drift of herbicides to receiving waters is expected to be minimal are not expected to exceed receiving water limitations due to turbidity curtains and minimal boat traffic reducinge drift. The turbidity curtain language was added in the NPDES permit section VI.C.3.d.ii and stated the following: “The double turbidity curtains must be maintained until all herbicide treatment sites have a minimum of two consecutive samples that are non-detect (i.e, below the reporting limit for the receiving water limitation parameters in Table 4 above.)”

Furthermore, as indicated in Summary Response 13.2, the likelihood of ingestion is extremely low.

Comment Table 11.2

Comment Number	Comment	Commenter
305.03	The receiving water limitations for endothall, triclopyr and rhodamine WT in section V.A.1 are too high; toxic effects are known to occur at levels below these limitations. The levels of these chemicals in the treatment areas and receiving waters outside the turbidity curtains should be measured and reported for compliance purposes based on the method detected limits (MDLs) of these chemicals, not the MCLs. (MDLs are defined as the minimum measured concentrations	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	of a chemical which can be reported with 99% confidence as distinguishable from method blank results.) The triclopyr RWL of 400 ug/l is based on the USEPA drinking water dietary exposure limit. Triclopyr is toxic to aquatic life at concentrations far lower than the drinking water level, 400 ug/l (0.4 mg/l). As stated by Leslie Touart, PhD4 with Beyond Pesticides: “Triclopyr TEA [triethylamine salt] breaks down rapidly to triclopyr acid and TCP [3,5,6-trichloro-2-pyridinol]. The chronic toxicity of TCP is of serious concern with a demonstrated NOAEC occurring at 0.058 mg a.i./L for the D. magna 21-day life cycle test. 5 Based on a field dissipation half-life of 7 days, this chronic aquatic invertebrate LOC would potentially be exceeded for greater than 30 days during the test program. Therefore, there is potential for adverse aquatic life impacts from triclopyr TEA usage in the weed control test program.” (Emphasis added) The report cited in footnote #4 also indicates that TCP’s chronic toxicity NOAEC (No Observed Adverse Effect Concentration) for early life stage testing of Rainbow Trout was 0.178 mg a.i./L and LOAEC (lowest observed adverse effect concentration) was 0.278 mg a.i./L, both of which are lower than the drinking water limit used for the receiving water limitations in the permit, 0.4 mg/l. Therefore, the receiving water limit of 400 ug/l of triclopyr is not protective of toxicity effects and the receiving water limitation for triclopyr in the table should be changed to the Method Detection Limit (MDL). Again, monitoring must be sufficient to determine permit compliance. (See, 40 C.F.R. § 122.44(i)(1) (every permit "shall include" monitoring "[t]o assure compliance with the permit limitations"]; NRDC v. County of L.A. (9th Cir. 2013) 725 F.3d 1194, 1209 [same].) Foot note: 4 Leslie Touart, PhD is currently Beyond Pesticides’ senior science and policy analyst and president of Equiparent Consulting providing consulting services to assist with ecotoxicity test data review, risk assessment, and regulatory compliance. He is a retired senior biologist from the US Environmental Protection Agency. He earned his doctorate in environmental biology and in public policy from George Mason University. He served in the Office of Research and Development performing marine organism toxicity tests and then in the Office of Pesticide Programs performing ecological risk assessments and developing test guidelines from molecular-based in vitro assays to large community-based and ecosystem-level aquatic mesocosms. He spent his last 18 years with the Agency in support of the Endocrine Disruptor	

Comment Number	Comment	Commenter
	Screening Program and oversaw the validation efforts for all the ecological test methods in the program. He was very active internationally with the Organization for Economic Cooperation and Development in test guidelines validation and harmonization. His efforts continue in advancing probabilistic ecological risk assessments, endocrine toxicology and international outreach.	
305.073	Two statements Pages F-17 and F-18 state: “The Basin Plan contains a narrative objective requiring that: “All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.”” And, “The Basin Plan further states that, to protect all beneficial uses, the Lahontan Water Board may apply limits more stringent than MCLs.” This permit, however, has applied RWLs that exceed chronic toxicity levels for triclopyr in D. magna 21-day life cycle test by 700% as previously stated in the comment on section V.A.1 (specific comment #3). How can that be interpreted as compliance with the above narrative objective that all waters must be maintained free of toxic substances? The Water Board should apply limits more stringent than MCLs, but does not propose to. The Method Detection Limit (MDL), rather than the MCL, should be the RWLs for both endothall (1.79 ug/l) and triclopyr (0.25 ug/l) 12 to satisfy the narrative objective. footnot 12:12 The required method for detecting endothall under 40 CFR Part 136, Appendix B is Method 548.1. Under Method 548.1, the Method Detection Limit (MDL) for endothall is 1.79 ug/l using the chromatographic/mass spectrometric (GC/MS) method and 0.7 ug/l using the gas chromatograph with a flame ionization detector (FID) method. Triclopyr MDL based on https://pubs.usgs.gov/wri/2000/wri004106/pdf/wrir.00-4106.tab3.pdf.	Tahoe Area Group of the Sierra Club
305.075	The rationale for the RWLs for endothall and triclopyr are discussed on page F-29. For instance, page F-29 states that the “400 µg/l triclopyr receiving water limit is based on triclopyr pesticide tolerances, specifically triclopyr dietary exposure from drinking water.” Why are the RWLs for these chemicals based on the drinking water levels when these chemicals are supposedly not going to reach the drinking water wells? Why isn’t the RWL for triclopyr based on the toxicity levels shown to be 0.058 mg a.i./L toxicity level for the D. magna 21-day life cycle test13?	Tahoe Area Group of the Sierra Club

Summary Comment 11.3

In the case of an exceedance of receiving water limits contained in the permit, the permit should require that all herbicide discharges be halted until the Lahontan Water Board is satisfied that the likelihood of further exceedances has been minimized to the extent feasible.

Summary Response 11.3

The permit authorizes a single, discrete discharge of aquatic herbicide residues, Rhodamine WT and Lanthanum-Modified Clay. Dosing calculations based on current lagoon volumes and concentration of chemicals will be submitted by the TKPOA to the Water Board for Executive Officer approval and public review. Calculations for dosing of pesticide based on current water volumes is an additional measure to prevent further exceedances and minimize residuals to furthest extent possible. If a receiving water limitation is exceeded in an application event or post-application event sample, the Discharger must perform the following actions: (1) initiate additional investigations for the cause of the exceedance, (2) implement appropriate BMPs to correct the residual aquatic herbicide, Rhodamine WT or lanthanum-modified clay induced receiving water limitation exceedance(s) to achieve compliance with the applicable receiving water limitation(s), and (3) evaluate the appropriateness of using reduced application rates in treatment areas not yet treated.

Section VIII.C.3.d notes that the Lahontan Water Board will consider the appropriateness and promptness of corrective actions in determining enforcement responses to violations of the permit. Attachment E of the permit, Monitoring and Reporting Program, requires reporting within 24-hours in case of non-compliance with receiving water limits. These measures ensure the Lahontan Water Board is aware of all non-compliance with the permit and corrective actions are taken before additional discharges occur following a case of noncompliance.

Comment Table 11.3

Comment Number	Comment	Commenter
305.037	Section VIII.C.3.a. of the draft Permit does not specify that all herbicide discharges must cease if there is an exceedance of RWLs. Instead, the draft permit requires “additional investigations,” implementation of appropriate BMPs to correct the residual aquatic herbicide, Rhodamine WT or lanthanum-modified clay-induced receiving water limitation exceedance(s) to achieve compliance with the applicable receiving water limitation(s), and evaluation of “the appropriateness of reduced application rates in treatment areas not yet tested.” The draft permit should require that all herbicide discharges be halted until Lahontan is satisfied that the likelihood of further exceedances has been minimized to the extent feasible.	Tahoe Area Group of the Sierra Club

Summary Comment 11.4

How will the application rate of herbicides be checked to verify compliance with receiving water limits? How will the test area water volumes be calculated? Who will verify test area volume calculations and that the aquatic herbicide applications will remain below the receiving water limits?

Summary Response 11.4

The first APAP amendment required must provide information on measurements to determine the volume of water in each treatment location for each herbicide to be applied, its manufacturer's starting concentrations, calculations to determine the volume needed to reach the target concentration for each treatment area... Staff will review the calculations. The NPDES permit includes receiving water limitations and monitoring to ensure compliance with those limitations. See also Summary Response 8.8.

Comment Table 11.4

Comment Number	Comment	Commenter
263.05	2. How will application rates of herbicides be ensured to achieve receiving water limitations? How will test area water volumes be calculated. Is there an individual that will verify calculations for appropriate dosing rates and measure the dosing real time to be sure concentrations remain at or below the receiving water limitations?	Lauri Kemper

Summary Comment 11.5

How will floating materials be evaluated?

Summary Response 11.5

Herbicides themselves should not float or cause foaming or scum on the water surface of treatment areas. The use of herbicides must occur early in the growing season to treat plants when the biomass is low to minimize the amount of plant fragments that could become floating materials. The following language was added to the permit in Section E.I.E: "3.Visual observation at the sampling location for any physical changes such as signs of harmful algal blooms or floating material."

Comment Table 11.5

Comment Number	Comment	Commenter
263.09	6. How will the receiving water limit for floating materials be evaluated? The receiving water limit requires a comparison from pre-discharge conditions to post-discharge conditions. Will observations and measurements be recorded pre-project, during project, and post-project?	Lauri Kemper

Summary Comment 11.6

How will compliance with turbidity and other receiving water limits be evaluated?

Summary Response 11.6

Monitoring requirements for turbidity and other parameters can be found in Table E-1 of the NPDES permit. See also Summary Response 8.1

Comment Table 11.6

Comment Number	Comment	Commenter
263.1	7. How will compliance with the Turbidity receiving water limit be evaluated? What will trigger corrective action for turbidity found outside turbidity barriers? What types of corrective actions will be conducted? On page 22 of Proposed NPDES Permit, corrective action is only required if Receiving Water Limitations in Table 4 are exceeded. What about the other receiving water limitations such as Turbidity, Phosphorus, and floating materials? The Permit must clearly state that corrective actions be taken if other violations are observed or measured as part of the Monitoring and Reporting Program and it is feasible to correct or mitigate.	Lauri Kemper

Summary Comment 11.7

An inaccurate statement was made in section F.II.B.1 regarding toxicity endpoints being higher for aquatic life toxicity than drinking water protection. The comment also notes that the chronic aquatic life toxicity concentration endpoints for triclopyr degradants is less than the concentrations required for drinking water protection.

Summary Response 11.7

Thank you for your comment, the referenced text in the Fact Sheet Section.II.B.1 of the NPDES under both Endothall and triclopyr were revised to clarify that endothall and triclopyr acute aquatic life toxic concentration endpoints are at concentrations greater than the drinking water dietary exposure limit and proposed aquatic herbicide treatment concentrations.

The following statement in Attachment F, section. II.B.1 was revised: “Aquatic life toxicity endpoints are greater than the MCL and proposed aquatic herbicide treatment concentrations.” The revision is as follows: “Acute aquatic life toxic concentration endpoints are at concentrations greater than the MCL and proposed aquatic herbicide treatment concentrations.”

The following statement in Attachment F, section. II.B.1 was revised: “Aquatic life toxicity endpoints are greater than the drinking water dietary exposure limit and proposed

aquatic herbicide treatment concentrations." The revision is as follows: Acute aquatic life toxic concentration endpoints are at concentrations greater than the drinking water dietary exposure limit and proposed aquatic herbicide treatment concentrations.

See also Summary Response 11.2 regarding chronic toxicity endpoints and their applicability to a single, discrete discharge.

Comment Table 11.7

Comment Number	Comment	Commenter
305.067	Section II.B.1, under Triclopyr, states that "Aquatic life toxicity endpoints are greater than the drinking water dietary exposure limit and proposed aquatic herbicide treatment concentrations6." This is an inaccurate statement. The footnote refers to this document: Triclopyr (Acid, Choline salt, TEA salt, BEE): Draft Ecological Risk Assessment for Registration Review, September 30, 2019, USEPA, EPA-HQ-OPP- 2014-0576-0026. However, the referenced document states the following: "The chronic toxicity of TCP, a major degradate of the four triclopyr active ingredients is similar to that of triclopyr BEE, with the lowest NOAEC occurring at 0.058 mg a.i./L for D. magna." The referenced document also states that TCP's chronic toxicity NOAEC (No Observed Adverse Effect Concentration) for the 60-d early life state for Rainbow Trout was 0.178 mg a.i./L and LOAEC (lowest observed adverse effect concentration) was 0.278 mg a.i./L. All of the above levels are lower than drinking water limit used for the receiving water limitations in the permit of 0.4 mg/l. Therefore, the statement in the Fact Sheet cited above is inaccurate and should be corrected to note the above citations.	Tahoe Area Group of the Sierra Club

Summary Comment 11.8

The proposed Permit should contain a clear prohibition of the discharge of herbicides to Lake Tahoe. The Receiving Water Limitations for herbicides in Lake Tahoe should be established at nondetectable concentrations.

Summary Response 11.8

Discharge locations and receiving waters identified in Table 2 on page one of the permit identifies Lake Tahoe as a receiving water. Receiving water limits established in the permit are protective of Lake Tahoe water quality and the beneficial uses of that water.

In accordance with the Region-wide and Unit/Area-Specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan), unless a specific exemption is granted in writing by the Lahontan Water Board, the discharge of pesticides to surface or ground waters is prohibited in the Lahontan Region. The Lahontan Water

Board will consider whether to adopt a resolution granting an exemption to this prohibition for the application of two aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac.

Comment Table 11.8

Comment Number	Comment	Commenter
346.04	Receiving water limitations are a required part of this Order and are based on water quality objectives contained in the Basin Plan. Pesticide discharge prohibition exemption criteria specified at page 4.1-4 of the Basin Plan require that monitoring for pesticide application projects must commence no more than one week after the application event* and that the time frame a project is required to achieve compliance with water quality objectives in treatment areas is established and specified by the Lahontan Water Board. The discharger must demonstrate compliance with receiving water limitations at all times outside of the treatment areas. Within the treatment area, the discharger must demonstrate compliance with receiving water limitations within 21 days after the application event." A. Receiving Water Limitations - Surface Waters The discharge must not cause any of the following: 1. An exceedance of the following limitations in the receiving waters: Table 4 Receiving Water Limitations includes the following limits: Endothall* 100 ug/l Instantaneous Maximum, Drinking water MCL Triclopyr* 400 ug/l Instantaneous Maximum, Drinking water MCL Rhodamine WT 10 ug/l Instantaneous Maximum * Measured as the concentration of the acid form of the active ingredient." Comments: The proposed Permit should contain a clear prohibition of the discharge of herbicides to Lake Tahoe. The Receiving Water Limitations for herbicides in Lake Tahoe should be established at nondetectable concentrations.	Richard McHenry
346.07	Surface receiving water limitations for Lake Tahoe and Lake Tallac in Table 5, below, are based on Table 5.1-3 (page 5.1-18) of the Basin Plan. The discharge to surface waters of residual aquatic herbicides, Rhodamine WT and lanthanum-modified clay must not cause or contribute to exceedances of the following receiving water limitations: Table 5 Receiving Water Limitations for Lake Tahoe and Lake Tallac Limit (mg/L) Constituent Annual Average 90th Percentile Total Dissolved 60 65 Solids (TDS) Chloride 3.0 4.0 Sulfate 1.0 2.0 Boron 0.01 - Total Nitrogen 0.15 - Total 0.008 - Phosphorus The proposed Permit, page 14, Aquatic Pesticide Application Plan (APAP), 3. A BMP implementation plan. The BMP plan must include the following BMPs at the	Richard McHenry

Comment Number	Comment	Commenter
	minimum, d. Plans to prevent aquatic herbicide migration to receiving waters adjacent to the main lagoon west channel entrance to Lake Tahoe and Pope Marsh downstream of Lake Tallac during treatment events. Minimum containment BMPs must include: ii. Prior to applying herbicides, double turbidity curtains (two turbidity curtains) must be installed in the locations identified on the Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations map in Attachment C to prevent herbicide migration from the Tahoe Keys Lagoons to Lake Tahoe. If turbidity curtain locations are revised in response to revised treatment area locations reported per VI.C.4, above, the Discharger must reflect such revised barrier locations on the map submitted per VI.C.4. (Underline emphasis added) Best Management Practices (BMP), pages 17 and 18 of the proposed Permit requires that: “Prior to applying lanthanum-modified clay, turbidity curtains must be installed in the locations identified on the Treatment Areas, Barrier Locations, and Main Lagoon Monitoring Locations map in Attachment C to prevent lanthanum-modified clay and turbidity migration from the Tahoe Keys Lagoons to Lake Tahoe.” Page F-7 of the proposed Permit states that: “A bubble curtain at the West Channel entrance from the Main Lagoon to Lake Tahoe has been in place for over one season and was implemented to prevent plant fragments from the Main Lagoon entering Lake Tahoe. Plant fragments are entrained by the bubble curtain and transported to floating bins on the bulkhead sides of the bubble curtain that capture the fragments. Work by the Army Corps of Engineers on the Columbia River indicate bubble curtains retain aquatic herbicides and slow their migration over a bubble curtain boundary in a riverine environment. This measure will minimize target aquatic plant fragments entering Lake Tahoe as a result of treatment activities and minimize the potential for aquatic herbicide residuals to enter Lake Tahoe.” Discharge Prohibition No. H on proposed Permit page 7 states that: “The discharge of residual aquatic herbicides, and Rhodamine WT to the Tahoe Keys Main Lagoon when the waters in the Main Lagoon are flowing to Lake Tahoe is prohibited.” Comment: The proposed Permit contains requirements for: double turbidity curtains to prevent discharge of herbicides to Lake Tahoe, a bubble curtain to prevent plant fragments from entering Lake Tahoe and a requirement that herbicides cannot be applied when waters are flowing to Lake Tahoe. Yet, the proposed Permit does not contain a clear Discharge Prohibition against	

Comment Number	Comment	Commenter
	discharging herbicides to Lake Tahoe. To the contrary, Receiving Water Limitations for Surface Waters contain limitations for herbicides at the drinking water MCL, which apparently apply to Lake Tahoe. The proposed Permit should contain a clear prohibition of the discharge of herbicides to Lake Tahoe. The Receiving Water Limitations for herbicides in Lake Tahoe should be established at nondetectable concentrations.	

Summary Comment 11.9

The Lahontan Water Board should build an appropriate amount of flexibility into the permit, so that the AIS collaboration team can adjust for deficiencies or build on successes as the test proceeds.

Summary Response 11.9

Lahontan Water Board has considered adaptive management in developing the NPDES and Waste Discharge Requirements for TKPOA and provided flexibility for project implementation where appropriate.

Comment Table 11.9

Comment Number	Comment	Commenter
200.02	Beyond approving the herbicide test, I would urge the board and the technical staff at the LRWQCB to build an appropriate amount of flexibility into the permit, so that the AIS collaboration team can adjust for deficiencies or build on successes as the test proceeds.	Barry and Susan Porter
246.02	Beyond approving the herbicide test, I would urge the board and the technical staff at the LRWQCB to build an appropriate amount of flexibility into the permit, so that the AIS collaboration team can adjust for deficiencies or build on successes as the test proceeds. We cannot afford to fail on this. And we cannot live with the status quo. Good luck with this important decision, and thank you for considering my input.	Jody Taylor
344.04	Beyond approving the herbicide test, I would urge the board and the technical staff at the LRWQCB to build as much flexibility as possible into the permit, so that the stakeholder group can correct minor deficiencies and build on early successes as the test proceeds. We cannot afford to fail on this. Knocking down the weeds inside the Keys is an essential first step to stopping the spread of invasive weeds into the lake, but we understand it’s only the beginning. A comprehensive, lasting solution will involve the use of many	Peter Wolcott

Comment Number	Comment	Commenter
	tools to keep the invasive weeds in check. It will include other techniques like laminar flow aeration and water circulation to improve water quality and reduce the occurrence of harmful algal blooms. And it will be complemented by shoreside restrictions on landscape, run-off, and water use. The TKPOA is committed to working with the regulatory agencies and local environmental groups to define such a plan and implement it with some urgency. Time is our enemy.	
290.02	Beyond approving the herbicide test, we urge the board and the technical staff at the LRWQCB to also be flexible with the permit, so that the AIS collaboration team can adjust for deficiencies and or build on successes as the test proceeds. Failure is not an option if we are to save and maintain Lake Tahoe.	Robert & Stephanie Reinhardt

Summary Comment 11.10

Mixing of treatment area waters and receiving waters will occur when boats enter and exit the treatment areas since entering and exiting would require lowering and raising the turbidity curtains which would increase the concentrations of pollutants subject to WQOs in the receiving waters. This possibility has not been addressed in the draft permit.

Summary Response 11.10

Sections VI.C.3.a.i and VII.B.2.i of the permit requires loading of aquatic herbicides onto watercraft utilized for chemical applications to be done with the vessel behind the installed turbidity curtains. Section 1.6.2 of TKPOAs application notes that boating access will be restricted where double turbidity curtains are installed. TKPOA has boat ramps or areas to stage watercraft utilized for the project that are behind the turbidity curtains therefore there will be no need to lower the turbidity curtains for boat access to conduct the tests.

Comment Table 11.10

Comment Number	Comment	Commenter
305.026	The draft NPDES also does not address the inevitable mixing of treatment area waters and receiving waters that will occur when boats enter and exit the treatment areas. The concentrations of pollutants subject to WQOs in the receiving waters will be changed by the mixing. Boats will enter and exit when applying the herbicides, monitoring pollutants, and installing and checking aerators. Presumably the entering and exiting would require lowering and raising the turbidity curtains, which would increase the concentrations of pollutants subject to WQOs in the	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
	receiving waters. This possibility has not been addressed in the draft permit.	
305.038	Section VIII.C.3.a.i. of the draft Permit requires that active aeration systems be installed within treatment areas if dissolved oxygen concentrations are too low or may become too low. How will aeration systems be installed behind turbidity curtains, presumably requiring lowering and raising the turbidity curtains, without the waters in the treatment area and receiving waters mixing? Boats will also enter and exit when applying the herbicides and monitoring pollutants. This possible mixing has not even been discussed in the draft permit. The mixing must be discussed and BMPs developed to ensure that mixing of treated and untreated waters does not occur.	Tahoe Area Group of the Sierra Club

Summary Comment 11.11

The requirements for notification of water purveyors noted in permit are not the same for mailing notifications (e.g., certified mail versus regular mail) and not as defined in terms of which water suppliers to notify and appears to require greater scope of water supplier notification including private wells than TKPOAs Communications Plan (section 6.2) in their application.

Has staff developed the full scope of notification/mailing list required to include private intakes or other public water providers?

The TWSA assumes no responsibility for proving notification to any other water providers (other than TWSA member agencies: Cave Rock Water System, Edgewood Water Company, Glenbrook Water Cooperative, 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).

Summary Response 11.11

If the permit is adopted, TKPOA would be required to conduct all notifications to users, public and private, known to have intakes in the project area consistent with the permit requirements. Neither Lahontan Water Board nor TWSA are responsible for providing the required notifications. The TRPA and Lahontan Water Board project team have made extensive efforts to identify all water users with intakes, public or private, in vicinity of the project through the environmental review and permitting stages of the project and will review TKPOAs final Communication plan to ensure notification of all known users with intakes in proximity to the project.

Comment Table 11.11

Comment Number	Comment	Commenter
272.1	8.Multiple pre-and-post-project notifications have been defined for contact to the area water providers potentially affected by the project. a)In the Application's Communication Plan 6.2. Water Purveyors section - there is clear instruction for 30 day minimum pre-project notification to: TWSA; STPUD, LUKINS, TKPOA water companies. b)However, the language in the tentative WDR permit is not quite as defined and potentially requires greater scope of notification. Has staff developed the full scope of notification/mailing list required to include private intakes or other public water providers? The TWSA assumes no responsibility for proving notification to any other water providers (other than TWSA member agencies: Cave Rock Water System, Edgewood Water Company, Glenbrook Water Cooperative, 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). c)The Application states that the 30-day notification will be via USPS to TWSA, STPUD, Lukins, and TKPOA; however, the Draft WDR states the discharger must provide via Certified Mail, or equivalent, to water purveyors whose source water relies on the surface water and/or groundwater wells designated to be under the direct influence of the surface water.	Tahoe Water Suppliers Association

Summary Comment 11.12

Test project cost information is not presented in a consistent manner in TKPOAs 2021 application and a consistent method should be established for evaluating project costs.

Summary Response 11.12

The Lahontan Water Board is not required to include cost information to implement federal law in this NPDES permit. The CMT involves a one-time aquatic herbicide application. A long-term weeds management strategy that includes herbicides or a repeated aquatic herbicide application is not under consideration by the Lahontan Water Board. A separate environmental review and permitting process will be required for any future aquatic herbicide projects.

Comment Table 11.12

Comment Number	Comment	Commenter
272.12	10.Cost information is presented in greater detail in the 2021 Application. However, this information is not presented in a	Tahoe Water

Comment Number	Comment	Commenter
	consistent manner and will become a larger decision factor for any larger scale project. A consistent method should be established for evaluating costs to be inclusive of permitting, mitigation and monitoring. Cost for CEQA DEIR/DEIS analysis; mitigation, monitoring and reporting should be included towards the cost of herbicides. Information presented by agency staff, in public meetings, has acknowledged the herbicide component of the proposed project as the piece that triggered the need for full CEQA analysis; all other methods require less intensive review.	Suppliers Association

Summary Comment 11.13

Is coontail targeted for mechanical removal or treatment with herbicides?

Summary Response 11.13

Coontail is targeted for treatment with endothall. Coontail is susceptible to treatment by endothall at proposed application rates but is not susceptible to treatment by triclopyr.

Comment Table 11.13

Comment Number	Comment	Commenter
272.11	9.Coontail is a floating (non-rooted) native aquatic plant considered to be growing at nuisance level. It contributes a considerable amount biomass. Is it targeted for mechanical removal or treatment with herbicides? There is not much mention of its management in the permit.	Tahoe Water Suppliers Association

Summary Comment 11.14

There is an abundance of scientific articles about herbicide treatment of many lakes and waterways around the country to control invasive aquatic weeds like Curlyleaf pondweed and Eurasian watermilfoil. None of these articles report eradication after one treatment or even after multiple annual or more frequent treatments. Plans for aquatic herbicide applications submitted under other Water Board permits note that herbicides would be used multiple times per year.

Summary Response 11.14

The proposed project is testing the effectiveness of a rapid aquatic weed knockdown with chemical and non-chemical methods followed by maintenance of aquatic weed coverage with non-chemical methods. TKPOA will be required to meet the requirements of the permit which include a prohibition on applying aquatic herbicides to treatment areas more than one time. Lahontan Water Board is aware of no scientific articles or

prior aquatic herbicide projects that have implemented this approach which is not comparable to management with multiple or frequent herbicide use.

Comment Table 11.14

Comment Number	Comment	Commenter
305.0125	There is an abundance of scientific articles about herbicide treatment of many lakes and waterways around the country to control invasive aquatic weeds like Curlyleaf pondweed and Eurasian watermilfoil. None of these articles report eradication after one treatment or even after multiple annual or more frequent treatments. Several of the Aquatic Pesticide Application Plans (APAP), which have been permitted to use aquatic herbicides under the State Water Resources Control Board's (State Board) General Permit (GP), state that herbicides would be used multiple times per year. One of these plans is "Application for State Implementation Policy Section 5.3 Exception for Use of Copper Aquatic Herbicides to Control Aquatic Weeds in Irrigation Canals" submitted by the Byron-Bethany Irrigation District1.	Tahoe Area Group of the Sierra Club

Summary Comment 11.15

The Lahontan Water Board should consider not allowing weed harvesting to continue during the three-year test period.

Summary Response 11.15

The permit does not place any restrictions on weed harvesting, as harvesting is not a component of the CMT. The CMT involves a one-time aquatic herbicide application. The proposed discharge of residual aquatic herbicides has minimal potential to create weed fragments. A long-term weeds management strategy is not under consideration by the Lahontan Water Board in this proceeding.

Section 1.6.1.1 of TKPOAs Basin Plan Exemption application states that mechanical harvesting of aquatic weeds would not be conducted during the first year testing period but may be utilized in years 2 and 3 as a contingency measure. TKPOA must develop and implement best management practice control measures to limit the spread of viable plant fragments as part of existing requirements in Board Order No. R6T-2014-0059.

Comment Table 11.15

Comment Number	Comment	Commenter
312.06	4. Lahontan Regional Board and the TRPA should consider not allowing weed harvesting to continue during the three-year test period. To continue to allow harvesting during this time would introduce an unknown and uncontrolled variable in the testing of weed control methods. Similarly, during the	Dan Askenaize

Comment Number	Comment	Commenter
	three-year test period the Lahontan Regional Board should impose a three-year moratorium on recreational boating within the lagoons. Both of these steps would be consistent with the goal of providing an accurate test of methods to control the invasive plants. Moratoriums on harvesting and boating should be considered as supportive of achieving the maximum benefit to the people of California.	

Summary Comment 11.16

The non-chemical treatment methods of UV light and Laminar Flow Aeration show promise and should be used in lieu of aquatic herbicides.

Summary Response 11.16

Both UV light and Laminar Flow Aeration treatment methods are not established weed control methods and considered experimental in nature (i.e., infeasible) at this time due to the limited application of this technology and data availability regarding its effectiveness. The Lahontan Water Board encourages testing a variety of aquatic weed control methods to identify the best approach to solving the aquatic weed problem in the Tahoe Keys Lagoons. The CMT project will include both aquatic herbicides, Laminar Flow Aeration and UV light.

Comment Table 11.16

Comment Number	Comment	Commenter
181.01	You really don't want do this, do you? Did you sleep on it? Is it the science you don't understand or the pressure from The Keyes as they are challenged as it costs them to mow and gather the “weeds.” The Keyes have fresh water wells on their property for domestic water, why would they put herbicides in the Keyes if it will travel to their wells. I don't get it. One year ago our country became involved in an epidemic and many died. I chose the science model and am alive, some chose “another” way and are gone. The “UV LIGHT” option is being used and is working at LPA and at other marinas. Infrared light rather than herbicides makes so much sense. Increase its involvement. The current plant life in the Keys will be controlled or as the UV Light option evolves it could more than control the infestation. Eradication via UV Light sure is a news headline we would all like to read. Become a participant in making sure the words include no herbicides were used!	Harald Oyen
366.03	Below are the aeration results from the Lake Tahoe Ski Run Marina Test: (https://www.clean-flo.com/wp-content/uploads/2020/05/Ski-Run-Marina-First-Year-Report-	Emily Koeritz

Comment Number	Comment	Commenter
	Jan-2020.pdf) “SKI RUN MARINA LAMINAR FLOW AERATION PROJECT REPORT JANUARY 2O2O FIRST YEAR RESULTS As indicated by the data summary on Table 1 (sample site no. 1 is background station), this project achieved its stated goals. Aquatic plant cover was reduced in the middle of the marina from 63% to 18% and in the back portion of the marina from 42% to 1%. Ammonia levels in the sediment were reduced by a minimum of 27% to up to 93%. Total Kjeldahl Nitrogen levels in sediment were reduced by a minimum of 7% lo up to 94%. Total Organic Carbon levels increased by 3% at one station and decreased by between 27% and 87% at the other four stations. The muck layer was reduced by between 5 inches to 23 inches.”	

Summary Comment 11.17

If Lanthanum Clay is applied at amounts greater than needed to bind to existing phosphorus, then LMC will cause lingering turbidity and lack of water transparency. How will the resulting bottom ‘gel’ be monitored to be sure it does not mobilize or get reintroduced into the water column? As Lake and lagoon levels lower, this ‘gel’ may get mixed into water column from boat traffic. Lanthanum Modified Clay should be considered a fine sediment and turbidity from excess LMC needs to be monitored. Levels of lanthanum in the sediments of the Keys lagoons should be measured before discharge of lanthanum-modified clay is proposed. The use of LMC is still untested and needs additional studies done including gathering data on the range of phosphorus levels that are present in the Keys’ waters.

Summary Response 11.17

As described in Section VII.B of the NPDES, the Lanthanum Modified Clay Application Plan (LMCAP) must be submitted by the Discharger prior to the application of lanthanum-modified clay (LMC). The requirements of the LMCAP can be found in Section VII in the permit. The CMT project may result in an increase in decaying biomass that can release phosphorus into the water column and create conditions suitable for algal growth. The LMC dosing will be considered when cyanobacteria indicators are at the caution levels or higher within the test sites. If elevated phosphorus levels are present in the test sites in comparison with the control sites and is greater than the water quality objective (0.008 mg/L), the CMT does allow for discharge of LMC to treat the elevated phosphorus. LMC is not considered a “pesticide” application for this project. The application dosing is restricted to being enough to reduce the phosphorus to below water quality objectives but not below 0.005mg/L. The BMPs required for the application of LMC will prevent LMC spills outside of the turbidity curtain and application rates will be consistent with product labels to ensure impacts to water quality are within the accepted scope of the permit.

Recreational boating or swimming in the Tahoe Keys will be limited during the LMC application. The treatment areas will be distinguished by use of turbidity curtains and signage. The curtains are one of the many BMPs to minimize turbidity caused by release of LMC into the lagoon surface waters. The LMCAP must include all the BMPS utilized to ensure water quality and beneficial uses are protected. The LMCAP must be reviewed by Water Board staff and accepted by the Executive Officer. Background, Event, and Post event monitoring are required for the use of LMC.

Comment Table 11.17

Comment Number	Comment	Commenter
263.07	4. I am concerned that if Lanthanum Clay is used that amounts applied will be greater than needed to bind existing phosphorus. This will cause lingering turbidity and lack of water transparency. I appreciate the requirements to obtain real-time phosphorus concentrations in the water column to arrive at proper dosing rates. However, how long will it take to receive lab results? Might the phosphorus levels go down during this wait time and, therefore, application rates of lanthanum will be too high? If more clay is applied than needed, will turbidity linger for more than 24 hours? How will the resulting bottom 'gel' be monitored to be sure it does not mobilize or get reintroduced into the water column? As Lake and lagoon levels lower, this 'gel' may get mixed into water column from boat traffic	Lauri Kemper
263.08	5. I not sure why lanthanum clay is not classified as fine sediment? What size defines that term? Consider clarifying sentence on page F-15 that states, "This Order does not authorize the discharge of nitrogen or phosphorus to the Tahoe Keys Lagoons. This Order does authorize the discharge of lanthanum-modified clay resulting in deposition of clay mineral deposits (i.e., the mineral rhabdophane) on the bed of treated areas within the Main Lagoon. One commercially available form of lanthanum-modified clay currently consists of lanthanum activated bentonite clay (i.e., PhoslockTM) with particle size ranges from 0.5-3mm and would not be classified as fine sediment; however, when mixed with water to form a slurry for application, PhoslockTM forms as fine sediment particles that do affect clarity as they settle through the water column for a short duration (i.e., 24-48 hours) following PhoslockTM application."	Lauri Kemper
305.035	levels of lanthanum in the sediments of the Keys lagoons should be measured before lanthanum is proposed	Tahoe Area Group of the Sierra Club

Comment Number	Comment	Commenter
305.068	Section II.B.2 refers to background levels of lanthanum in water body sediments globally, but provides no data as to the background levels in sediments in the Keys. Levels of lanthanum in the sediments of the Keys lagoons should be measured before discharge of lanthanum-modified clay is proposed.	Tahoe Area Group of the Sierra Club
305.069	The same section states: “Once lanthanum-modified clay has bound with the phosphate in the water column and any phosphate released from the sediments, it forms the insoluble mineral, rhabdophane. The low solubility product of rhabdophane makes it unlikely under environmental conditions that either the phosphorus or the lanthanum will be released over time.” This seems to imply that the discharge of lanthanum will have little to no adverse effects. However, one research document noted that “not much is known about the environmental impacts of lanthanum (III)-containing materials (LM) for containing phosphate in the aquatic environment.” This same study indicated that “>70 papers have been published on this topic in the peer reviewed literature, but mechanisms of phosphate removal by LM as well as potential environmental impacts of LM remain unclear.11” This study recommends "additional research dedicated to understanding La release from LM under diverse environmental conditions as well as long-term exposures on ecological organisms, particularly primary producers and benthic organisms. Further, site-specific monitoring could be useful for evaluating potential impacts of LM on both biotic and abiotic systems post-application."	Tahoe Area Group of the Sierra Club
305.07	Section II.B.2 also refers to the application rate for lanthanum being “calculated based on the amount of phosphorus that is to be removed from the water column…” yet no data on the range of phosphorus levels that are present in the Keys’ waters are cited.	Tahoe Area Group of the Sierra Club

Summary Comment 11.18

Part of Section III.A regarding the prohibition exemption of pesticides and the grading of the NPDES resolution is not a discharge prohibition and should not be in the Discharge Prohibition Section.

Summary Response 11.18

In accordance with the Region-wide and Unit/Area-Specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan), unless a specific exemption is granted in writing by the Lahontan Water Board, the discharge of pesticides to surface or ground waters is prohibited in the Lahontan Region. The Lahontan Water

Board will consider whether to adopt a resolution granting an exemption to this prohibition for the application of two aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac.

Comment Table 11.18

Comment Number	Comment	Commenter
305.028	Section III.A, Discharge Prohibitions, states the following: "In accordance with the Region-wide and Unit/Area-specific Prohibitions in section 4.1 of the Water Quality Control Plan for the Lahontan Region (Basin Plan), unless a specific exemption is granted in writing by the Lahontan Water Board, aquatic pesticides are prohibited from the waters of the Lahontan Region. On January XX, 2022, the Lahontan Water Board adopted Resolution No. R6T-2022-XXXX granting an exemption for the discharge of two residual aquatic herbicides to waters of the Tahoe Keys Main Lagoon and Lake Tallac." This statement does not prohibit anything. It appears to be in an inappropriate place in the draft permit.	Tahoe Area Group of the Sierra Club

Summary Comment 11.19

The permit Fact Sheet should include a description of the permit application, the fee, and the public notification requirement in a Notification Requirements section similar to that included in Section D.II of the State Board Order No 2013-0002-DWQ.

Summary Response 11.19

Section D.II of State Board Order No 2013-0002-DWQ addresses notification for applications submitted for coverage under the State Board's general order. The permit is an individual NPDES permit providing coverage to only TKPOA. The description of the report of waste discharge TKPOA provided for the permit application is included in section F.I of the permit.

Comment Table 11.19

Comment Number	Comment	Commenter
305.059	The State Board's GP includes Notification Requirements in Section II of the Fact Sheet, Attachment D. Why does this current draft permit's Fact Sheet not include a section on Notification Requirements? The Fact Sheet should include a description of the permit application, the fee, and the public notification requirement in the Notification Requirements section.	Tahoe Area Group of the Sierra Club

Summary Comment 11.20

The NPDES specific permit requirements, including Best Available Technologies and Best Conventional Pollution Control Technologies, are appropriate. BMPS required by the permit are above and beyond what is typically required for application of pesticides to aquatic environments.

Summary Response 11.20

Comment noted.

Comment Table 11.20

Comment Number	Comment	Commenter
312.02	The Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), and Best Management Practices provided are appropriate to minimize potential impacts and address concerns as they occur. The “Additional BMPs typically not employed for aquatic weed control projects using aquatic herbicides” that go above and beyond to make sure that the herbicides are mostly contained to the treatment area and that residue dissipates as anticipated.	Dan Atskenaize

Summary Comment 11.21

The TKPOA application includes a statement that appears to be completely at odds with the spirit and approach of the test and appears to be contrary to the position in the Staff Report. It is unclear if the use of ProcellaCOR will be considered for use by Lahontan Water Board as an aquatic herbicide, as part of the CMT, if the chemical is approved by the CalEPA-DPR.

Summary Response 11.21

ProcellaCOR is not approved and not allowed to be used as an aquatic herbicide use for the CMT. The NPDES permit does not include the discharge of ProcellaCOR. If ProcellaCOR is approved for use by the CalEPA-DPR, then TKPOA could request that the NPDEs permit be reopened to add or modify requirements associated with the application of ProcellaCOR.

Comment Table 11.21

Comment Number	Comment	Commenter
312.1	8. In previous documentation, the TKPOA had proposed the use of a third herbicide, Florpyrauxifen-benzyl (ProcellaCOR). The draft Staff Report states: “ProcellaCOR is not yet approved for use in California by the California department of Pesticide Regulation and, therefore, will not be considered by the Lahontan Water Board as part of this	Dan Askenaize

Comment Number	Comment	Commenter
	exemption." However, the April 30, 2021, TKPOA Application to Test Combinations of Aquatic Weed Control Methods states that ProcellaCOR Water Quality & Treatment Solutions, Inc. Page 5 of 5 "has recently been approved and registered by US EPA and classified as a "reduced risk" pesticide, meaning that it is used at a few parts per billion with very low or no risk to non-target organisms. This latter herbicide will only be tested if it is approved by the California Environmental Protection Agency Department of Pesticide Regulations (CalEPA-DPR), which is anticipated in 2021….Once florpyrauxifen-benzyl (ProcellaCOR™) is registered in California, it can be approved for use by Lahontan Regional Water Quality Control Board as part of an NPDES permit. If it is not added to the list of approved herbicides by 2021, then this herbicide would be tested after it is added to the list for NPDES permits (i.e., a later year)." This statement by the TKPOA appears to be completely at odds with the spirit and approach of the test and appears to be contrary to the position in the Staff Report.	

Summary Comment 11.22

TKPOA requests adding language to Section I of the Order about the continued proliferation of noxious aquatic weeds despite the efforts thus far by the TKPOA. This language is already in the Fact Sheet but should be included in the Order because it gives the background information on the purpose for the discharge.

Summary Response 11.22

The information regarding the infestation of invasive aquatic weeds is well documented within the Order, and all other permit documents. The fact sheet was prepared in accordance with 40 Code of Federal Regulations part 124.8 and part 124.56. The suggested changes to Section I were not included into the Order.

Comment Table 11.22

Comment Number	Comment	Commenter
328.03	The Fact Sheet includes some discussion of the important purposes of this Project, particularly its connection to improving water quality in Lake Tahoe and the Tahoe Keys Lagoons. Specifically, on page F-6, the context surrounding the continued proliferation of noxious aquatic weeds (Eurasian watermilfoil, curlyleaf pondweed, and coontail, the former two being non-native species) is explained, noting that the weeds have continued to infest areas of the Tahoe	Kirk Wooldridge

Comment Number	Comment	Commenter
	Keys Lagoons and other areas in Lake Tahoe, despite efforts to control these weeds through mechanical means. TKPOA is acutely aware that these weeds cover up to 90 percent of the water surface area in the Tahoe Keys Lagoons. These infestations present serious water quality impacts, as noted in the Fact Sheet, including impacts to water clarity and recreation safety. Harmful algal blooms ("HABs") also occur where vegetation causes dissolved oxygen levels to drop. TKPOA thinks this important context for this proposed discharge should be discussed in the Tentative Order itself, instead of hidden in the Fact Sheet. This change would acknowledge that the Project is a key step toward effectively controlling aquatic weed populations that threaten Lake Tahoe's beneficial uses. To implement this request, TKPOA suggests the following changes to Section I, "Discharge Information." This Order regulates the discharge of aquatic herbicide residues, Rhodamine WT (dye tracer), and lanthanum-modified clay (phosphorus control). Additional information describing these discharges that are associated with the Tahoe Keys Lagoons Aquatic Weed Control Methodology Test (Project) is summarized in Table 2, above, and in sections I and II of the Fact Sheet (Attachment F). The Project employs aquatic herbicides and two non-chemical treatment methods intended to test the effectiveness of initial herbicide treatment to provide rapid knock down of target aquatic weeds either alone or in combination with other non-chemical treatment methods. This Project is proposed because current methods available to the Permittee have been largely unsuccessful in achieving control of aquatic invasive weeds, where such control is necessary to maintain ecosystems, navigation, and health and safety in the Tahoe Keys Lagoons. Section I of the Fact Sheet also includes information regarding the Discharger's permit application.	

Summary Comment 11.23

It is unclear if the noticing requirements to the water purveyors and the noticing requirements due at least 15 days prior to discharge of aquatic herbicides are required at the same time. The TKPOA requests reducing the duplicative noticing efforts currently required in the Order.

Summary Response 11.23

The notification requires TKPOA to inform potentially affected individuals, water purveyors, and post a notice on its website with required information. The requirements

are not duplicative as they satisfy different criteria required by the Basin Plan. There are six requirements for the notification for all parties and three additional requirements for water purveyors. The three requirements to notify water purveyors is a requirement of Basin Plan Regionwide Prohibitions Exemptions Criteria for Aquatic Pesticide Use for ONRWs on page 4.1-7.

Comment Table 11.23

Comment Number	Comment	Commenter
328.04	Public Notice Requirements In Provision VI.B, the Tentative Order includes several extensive public notice requirements before use of aquatic herbicides may occur. It is unclear whether the notice provisions in the top paragraph of page 12 are intended to be in addition to the notice requirements in the following paragraph, which are required at least 15 days before the first application. If the notice requirements are additive, then these notice requirements are quite burdensome for the limited scope authorized. Since many of the requirements are the same or similar, TKPOA requests that the Tentative Order be amended to clarify that the 15-day notice requirements satisfy the other notice requirements, or to otherwise clarify how these notice requirements interact.	kirk Woolridge

Summary Comment 11.24

Provision VI.D on page 15 of the Tentative Order does not create any obligations on Regional Board staff to timely review APAP amendments for completeness or any time by which approval must be granted. TKPOA requests that the Tentative Order be amended to establish times by which the Regional Board must act to first determine completeness of APAP amendments and second approve such amendments. TKPOA therefore requests that the Tentative Order include substantially similar timelines for review for the LMCAP and be deemed approved as with the APAP if Regional Board staff fails to timely act.

Summary Response 11.24

On-time submittals of amendments will ensure Water Board staff can plan workloads accordingly to accommodate the timely review of the amendments. If the APAP amendments or LMCAP require revisions, the Water Board staff will work with TKPOA staff to be efficient, clear, and concise in the feedback provided back to the discharger. The LMCAP and APAP require staff and executive officer review and acceptance. The Discharger must submit a LMCAP by April 1, 2022 for the application of lanthanum-modified clay if it is utilized as a HAB control consistent with the requirements of section VI.C.3. The Project's start date is a major consideration in the timing and organization of requirements of the permit. The Water Board staff have been more than accommodating in the due dates for the required submittals of the LMCAP and APAP amendments.

The NPDES permit has been revised to change the deadlines for LMCAP submittal to allow time for public comment, and to require the discharger to notify the public when the LMCAP has been submitted to the Lahontan Water Board. The first sentence of section VII.B page 17 of the NPDES permit has been revised to the following: “The Discharger must submit a LMCAP **by April 1, 2022** for the application of lanthanum-modified clay if it is utilized as a HAB control consistent with the requirements of section VI.C.3.e, above, to the Executive Officer for approval, and must make the LMCAP available to the public for a 30-day period to allow for public comment.” The LMCAP will be announced as available for public comment for 30 days. The Water Board Executive Officer will decide after the public comment period whether to approve the LMCAP.

Comment Table 11.24

Comment Number	Comment	Commenter
328.05	Aquatic Pesticide Application Plan and Lanthanum-Modified Clay Application Plan In Provision VI.D on page 15 of the Tentative Order, TKPOA is required to produce amendments to the Aquatic Pesticide Application Plan (“APAP”), which staff will review for completeness and recommend for Executive Officer approval. This section also outlines the process for addressing any comments that Regional Board staff have on the amendments. However, this section does not create any obligations on Regional Board staff to timely review APAP amendments for completeness or any time by which approval must be granted.	Kirk Woolridge
328.06	The second required APAP amendment must be submitted 30 days before the first application, which means time is of the essence for approval such that the Project can remain on schedule. Applications must be timed strategically to take advantage of favorable natural phenomenon, such as snowmelt, flow patterns in Lake Tahoe, and the beginning stages of vegetative growth. Accordingly, TKPOA requests that the Tentative Order be amended to establish times by which the Regional Board must act to first determine completeness of APAP amendments and second approve such amendments. Alternatively, TKPOA requests that the Tentative Order include a time by which APAP amendments will be deemed approved if staff fails to timely act, in order to ensure that the Project can be timely completed. Without these changes, the project could be unreasonably stymied by Regional Board staff inaction.	Kirk Woolridge
328.07	TKPOA has similar concerns with the Lanthanum-Modified Clay Application Plan (“LMCAP”) in Provision VII.C. on page 18. Timely approval of the LMCAP is crucial, as lanthanum-modified clay is proposed to be used to mitigate HABs, which create significant human health risks. TKPOA	Kirk Wooldridge

Comment Number	Comment	Commenter
	therefore requests that the Tentative Order include substantially similar timelines for review and be deemed approved as with the APAP if Regional Board staff fails to timely act.	

Summary Comment 11.25

If a receiving water limitation excursion occurs notwithstanding all of the precautions required under this permit, that should not be subjected to both a finding of violation and requirements to take corrective action, which is essentially injunctive relief for that situation.

Summary Response 11.25

It is the discharger's responsibility to be in compliance with permit terms and requirements, and to take steps to correct any violations. In addition, violations of permit requirements may subject the discharger to administrative civil liability. This language will remain unchanged.

Comment Table 11.25

Comment Number	Comment	Commenter
328.08	Effect of Corrective Actions. Provision VIII.C.3.d states that taking the required corrective actions may not absolve liability for any violations. However, if a receiving water limitation excursion occurs notwithstanding all of the precautions required under this permit, that should not be subjected to both a finding of violation and requirements to take corrective action, which is essentially injunctive relief for that situation. This could place TKPOA in potential liability jeopardy to third parties that could also extract attorneys' fees and different injunctive relief – going beyond the intent and purpose of the Permit – for a Project intended to be environmentally beneficial. TKPOA suggests the following changes to Section VIII.3.d.: The occurrence of a situation identified in section C.3.b, above, may constitute a violation of this Order. Correcting the situation according to Corrective Action section C.3.c, above, does not absolve the Discharger of liability for such violations. However, if the Permittee failure to timely comply with any Corrective Action as required by section C.3.c, above, constitutes an additional permit violation. The Lahontan Water Board will consider the appropriateness and promptness of corrective action in determining enforcement responses to any potential violations of this Order.	Kirk Wooldridge

Summary Comment 11.26

The TKPOA request to add the word “potential” in front of violation or replace the word violation with “noncompliance with” to Section E.6.b.

Summary Response 11.26

The NPDES permit does not presume that violations would occur. To clarify that violations would only need to be reported if they occur, the language has been revised. The language in Attachment E was “The Discharger must attach a cover letter to the Annual Report that clearly identifies violations of the Order; discusses corrective actions taken or planned; and provides a time schedule for corrective actions” And was replaced with “The Discharger must attach a cover letter to the Annual Report that clearly identifies any violations of the Order; discusses corrective actions taken or planned; and provides a time schedule for corrective actions.”

Comment Table 11.26

Comment Number	Comment	Commenter
328.09	Discussion of “Violations” Section E.6.b. on page E-19 should refer to “potential” violations or as “noncompliance” since a violation can only be determined after a formal public hearing to make that determination. (See accord Page D-6, Section V.G (using “noncompliance”).) Thus this section should read: The Discharger must attach a cover letter to the Annual Report that clearly identifies noncompliance with or potential violations of the Order; discusses corrective actions taken or planned; and provides a time schedule for corrective actions. Identified potential violations must include a description of the requirement that was potentially violated and a description of the potential violation.	Kirk Wooldrige

Summary Comment 11.27

The language in Standard and Special provisions is requested to have the word “potential” added in front of “violation” (Section VIII.A.2.g), “Adverse Incident” (Provision VIII.C.4), and “Adverse or Toxic Effect” (Provision VIII.C.4). The Tentative Order contains an extensive protocol for reporting “adverse incidents” to threatened or endangered species or critical habitat. This provision is quite onerous, considering that the application rates of the two aquatic herbicides, Rhodamine WT, and lanthanum-modified clay are far below the effects levels reported for the most sensitive species. It is unclear why this section is necessary. TKPOA is concerned that this would then make TKPOA liable for any such impacts when in fact it has not been established that the discharge was the cause of those impacts. TKPOA requests that this definition be modified to include more than a vague temporal and spatial connection between discharge and observed impacts to organisms such that the appropriate cause of adverse effects can be identified.

Summary Response 11.27

The Standard and Special Provisions are standard language reviewed and accepted in most NPDES permit and State Board General Permits. The Draft EIR/EIS did not identify any endangered species and impacts are not expected. However, if the Discharger becomes aware of an adverse incident to a federally-listed threatened or endangered species or its federally-designated critical habitat that may have resulted from the discharger, the provisions provide for a notification and process to protect that species. The language in the draft permit and definitions were not changed.

Comment Table 11.27

Comment Number	Comment	Commenter
328.1	The same change should be made to qualify the word "violation" in Section VIII.A.2.g. on page 19 of the Permit. "Adverse Incident" and "Adverse or Toxic Effect" In Provision VIII.C.4 on page 24, the Tentative Order contains an extensive protocol for reporting "adverse incidents" to threatened or endangered species or critical habitat This provision is quite onerous, considering that the application rates of the two aquatic herbicides, Rhodamine WT, and lanthanum-modified clay are far below the effects levels reported for the most sensitive species. (See Fact Sheet at pp. F-8 to F-11, Attachment G, G-9, G-11, G-12, G-14.) The discussion in the antidegradation analysis clearly shows that this is the case. Accordingly, it is highly unlikely that any such adverse incidents would occur, as the concentrations being applied are orders of magnitude below adverse effects levels for sensitive species. Thus, it is unclear why this section is necessary. The definition of "adverse or toxic effect" in Attachment A at page A-1 refers to an event where aquatic organisms, namely fish, experience observed negative effects "that are temporally and spatially related to exposure" to herbicide residues, Rhodamine WT, or lanthanum-modified clay, or otherwise occur "as a result of" discharges authorized by the Tentative Order. The current definition only requires a temporal or spatial connection to discharge, which is overly inclusive of an event that may have no actual connection to the discharge. TKPOA is concerned that this would then make TKPOA liable for any such impacts when in fact it has not been established that the discharge was the cause of those impacts. As explained immediately above, the discharge concentrations are at levels many times lower than the negative effects levels set for the most sensitive species to the relevant ingredients. Thus, impacts to aquatic organisms are highly unlikely, particularly to the degree listed in the definition on A-1. On	Kirk Wooldridge

Comment Number	Comment	Commenter
	that basis, TKPOA requests that this definition be modified to include more than a vague temporal an spatial connection between discharge and observed impacts to organisms such that the appropriate cause of adverse effects can be identified.	

Summary Comment 11.28

TKPOA requests that the Regional Board make some relatively minor edits to the text of the Tentative Order and its Attachments for additional accuracy and for completeness.

Summary Response 11.28

Water Board staff have reviewed suggested edits to text 1-5 and have edited the permit as appropriate. Thank you for your careful reading and thoughtful requests for edits.

1. The text in Section VII.A (Lanthanum-Modified Clay Application Criteria) was changed from “The following criteria must be met when using Lanthanum-modified clay:” to “The following criteria must be met to use Lanthanum-modified clay:”

2. Section VIII.C.2.a text was changed from “The discharger must demonstrate compliance with receiving water limitations within 21 days after the application event” to “The Discharger must demonstrate compliance with receiving water limitations in treatment areas within 21 days after the application event”

3. Section VIII.C.2.a was changed from “The investigation must include, but not be limited to evaluating the need to implement additional control measures including revising and improving the existing BMPs, revising the mode and rate of application, or other control methods proposed by the Discharger” to “The investigation must include, but not be limited to evaluating the need to implement additional control measures including revising and improving the existing BMPs, revising the mode and rate of application, or other control methods proposed by the Discharger.”

4. Edits were made in Fact Sheet Section IV.B.1 Technology Based Effluent Limitations. The original paragraph said “The APAP and LMCAP describe the application rate for each aquatic herbicide, Rhodamine WT and lanthanum-modified clay and Rhodamine WT products discharged. The information in the APAP is needed to provide information on plans for application to ensure that the herbicide and rhodamine dye application rates does not exceed aquatic herbicide product label requirements or the proposed targets for the herbicides or rhodamine dye. The LMCAP information is needed so that only enough lanthanum-modified clay is used to bind the free phosphorus in the waterbody and in the case of lanthanum-modified clay so the applications does not result in residual lanthanum in receiving waters above background concentrations, and Rhodamine WT discharge rates do not result in exceedance of receiving water

limits". This paragraph was replaced with "The APAP and LMCAP describe the application rates for each aquatic herbicide, Rhodamine WT and lanthanum-modified clay product discharged. The information in the APAP is needed to ensure that the aquatic herbicide and rhodamine dye application rates do not exceed product label requirements or the proposed target treatment concentrations for the herbicides or rhodamine dye. The LMCAP information is needed to ensure that only enough lanthanum-modified clay is used to bind the free phosphorus in the waterbody and applications do not result in lanthanum in receiving waters above background concentrations."

5. It is understood that the application of herbicides is not necessarily considered a discharge of pollutants, consistent with the holding in *National Cotton Council of America v. U.S. Environmental Protection Agency.* No change is needed to the text.

6. The Term Permittee and Discharger are used interchangeably in the permit. No change is made to nomenclature of TKPOA's designation.

7. No change was made in Attachment F Section II.B (Discharge Description) or Attachment G second sentence in Section VIII. The definition of Treatment Event can span multiple days but only to apply the original calculated amount of herbicide to a given area. The treatment event ends when full treatment of the target plant species occurs.

Additional analysis and the results of the CMT will be needed to prior to considering whether to integrate the use of herbicides into a larger scale management plan. No change was made in the permit to address this concern from the commenter.

Comment Table 11.28

Comment Number	Comment	Commenter
328.11	In closing, TKPOA requests that the Regional Board make some relatively minor edits to the text of the Tentative Order and its Attachments for additional accuracy and for completeness. 1. The last sentence in Provision VII.A. on page 16 of the Permit is missing words. This sentence should read: "The following criteria must be met when using Lanthanum-modified clay:" 2. In Provision VIII.C.2.a, page 22, the first full sentence appears to be missing words. TKPOA suggests the following revision: "Within the treatment areas, the discharger must demonstrate compliance with receiving water limitations within 21 days after the application event." Additionally, the last phrase in the last sentence of that paragraph (". . . or selecting alternative methods for aquatic weed control") is inconsistent with the purpose of the test, which is to compare control methods, including the use of herbicides in achieving effective and efficient control of invasive aquatic plants. Selecting alternative control methods for the limited application of this Tentative Order defeats the purpose of	kirk Wooldridge

Comment Number	Comment	Commenter
	the Project. TKPOA accordingly requests that this phrase be removed. 3. The second sentence in first full paragraph on F-24 does not make sense and may be missing words. TKPOA suggests the following revision: “The APAP addresses many of the requirements noted above for the APAP; however, the LMCAP and implementation plans for all BMPs required by this Order are still being developed.” Alternatively, “required by this Order are to be developed pursuant to this Order.” 4. In several places in the Fact Sheet, the Regional Board acknowledges that the application of aquatic herbicides “is not necessarily considered a discharge of pollutants” per National Cotton Council of America v. U.S. Environmental Protection Agency (6th Cir. 2009) 553 F.3d 927. TKPOA requests a minor revision to this language to more closely mirror the holding in National Cotton Council. TKPOA suggests that the Tentative Order read that the application of aquatic herbicides “is not necessarily or automatically considered a discharge of pollutants.” 5. Since the Fact Sheet indicates on page F-4 in Section I.A. that the terms “discharger” and “permittee” are held to be equivalent, TKPOA requests that the term “Discharger” be replaced throughout with “Permittee” since that word has a more desirable connotation than Discharger. 6. Since this Permit is for a five-year term and the application may need to be done twice in the same area (e.g., if re-application needed because of mechanical failure), and to avoid the possible need for another permit or a permit modification in that instance, references to a “one-time” treatment event should be removed from the Permit. See e.g., Section B. on page F-7; Section VIII on pg. G-18. In addition, if findings are made that herbicide application is successful in weed control without any adverse environmental consequences, TKPOA would like the ability to discuss expanding the scope of the permit to integrate the herbicide methodology into a holistic management plan for invasive species.	

Summary Comment 11.29

Commenter requests specific edits to Staff Report supporting the Basin Plan Exemption Resolution.

Summary Response 11.29

The Water Board either included within the Staff Report the suggested edits to text or rejected the suggestions. The rejected comments and suggested edits are explained below. If the commenter’s suggested edit is not included in the descriptions below, it was

included in the updated resolution. Responses to the unincorporated TKPOA specific comments on the Draft Resolution are as follows:

Water Board explanation to rejected TKPOA comments and suggested edits on Executive Summary:

- In the first sentence of the second paragraph. the Staff Report was not updated to change “has requested to implement…” to “has filed a formal application.” This change is unnecessary as it conveys the same information as the current text.
- In the second paragraph, number 5, the resolution was not updated to change “re-infestation” to “infestation.” The project goals mirror language used in the EIR/EIS.

Water Board explanation to rejected TKPOA comments and suggested edits on Section 1 (Introduction) and Section 2 (TKPOA CMT Project Goals):

The detailed AIP management history from 1995-2003 has not been added to the Staff Report. Your comment is noted.

- To be categorized as an Emergency, the project must meet the Basin Plan Prohibition criteria defined in the Public Resource Code Section 21060.3 and the CEQA definition of an Emergency in Section 15269 (a)(b)(c) of the CEQA guidelines. The CMT does meet the definition of an emergency project. Please also see Summary Response 1.5.

Water Board explanation to rejected TKPOA comments and suggested edits on Section 2 (TKPOA CMT Project Goals):

The Staff Report was not updated to add “if possible.” The nature of the CMT is to test if the methods used for treatment will improve water quality. Adding “if possible” is unnecessary for the explanation of goals. The Staff Report was not updated to change ‘re-infestation” to “infestation.” The project goals mirror language used in the EIR/EIS.

- The total area of 41.4 acres of treatment area was taken from the text of the EIR. However both the information in the DEIR and APAP both appear to state 41.5 acres will be treated. The table in the APAP states 41.7 acres, but adding up the information in the APAP Table sums up to 41.5 acres.

Water Board explanation to rejected TKPOA comments and suggested edits on Section 3 (Exemption Request):

- The following change has not been incorporated: “The information submitted by TKPOA and presented in the NPDES Permit and FEIR/EIS provide…” The Lahontan Basin Plan requires the applicant for the prohibition exemption to provide information that allows the Regional Board to make findings on the federal and state antidegradation policies. This sentence identifies that TKPOA submitted information for that purpose and that information from the discharger

and the public were also obtained in the environmental review process. This was not intended to convey the location of the antidegradation analysis in the NPDES permit. To add clarity, the sentence has been changed to: “The information submitted by TKPOA and others in the public review process provide information to determine whether the use of the proposed discharges are consistent with Antidegradation Policies.”

Water Board explanation to rejected TKPOA comments and suggested edits on Section 4.2 (Basin Plan Exemption Criteria):

- The Staff Report has not been revised to include the anti-degradation analysis. Finding #12 of the Resolution states: “This action is consistent with the Antidegradation Policy. Granting of the exemption alone will not result in a discharge and any degradation. Any authorized discharge under this exemption will be subject to waste discharge requirements. Antidegradation will be considered as part of the NPDES permit”

Water Board explanation to rejected TKPOA comments and suggested edits on Section 4 (Basin Plan Exemption Process):

- The granting of an exemption to a prohibition does not require State Board approval. The language in the Staff Report describes how the prohibition and exemption criteria became effective and part of the Basin Plan.

Water Board explanation to rejected TKPOA comments and suggested edits on Section 4.2 (Basin Plan Exemption Criteria):

- Preliminary information on the LFA and UV-C have not been incorporated into the Staff Report. The 2021 TKPOA IMP update has not been submitted and so a description of its contents has not been included in the Staff Report.
- The conditionally accepted Integrated Management Plan (IMP) is a historic document. Removing the use of aquatic herbicides from the IMP was one of the main conditions of acceptance. The details of the conditional acceptance are unnecessary to support the exemption findings. Therefore, the changed has not been made to the Staff Report.
- To be categorized as an Emergency, the project must meet the Basin Plan Prohibition criteria defined in the Public Resource Code Section 21060.3 and the CEQA definition of an Emergency in Section 15269 (a)(b)(c) of the CEQA guidelines. The CMT does meet the definition of an emergency project. To be categorized as “time sensitive”, the applicant must demonstrate “the time sensitive nature of the project by demonstrating the existing or imminent deleterious effects of an infestation and the importance of an expedited action.” The project is a test and not a long-term solution to address an infestation. The resolution proposes granting an exemption to the prohibition for a project Projects that Are Neither Emergencies Nor Time Sensitive. Please also see Summary Response 1.5.

- For criterion 2 on page 9 of the staff report, the clarification on the portion of the APAP that was updated in June 14, 2021 was not included, as it is redundant with the statement that an amendment was made to the APAP.
- Changes to Criterion 4 on page 11 have not been included because the requested information is already in the section.
- The detailed list of reports provided by TKPOA have not been added to the section of the Staff Report. However, the Staff Report indicates that methods to date have failed to address invasive weeds. The reports documenting that failure are noted.
- The 2021 TKPOA IMP update has not been submitted and so a description of its contents has not been included in the Staff Report.

Comment Table 11.29

Comment Number	Comment	Commenter
385.02	TKPOA has prepared a list of comments regarding the Project for the Lahontan Regional Watter Quality Control Board's (Lahontan's) consideration. These comments can be found in the bullets below related to the Draft Staff Report supporting the Draft Basin Plan Exemption Resolution. • TKPOA suggests that the term "Project" should be capitalized throughout to clearly refer to the CMT Project. • Executive Summary, Page 2: o TKPOA recommends changing reference to University of Reno to University of Nevada, Reno. o In the first sentence of the second paragraph, TKPOA recommends changing "has requested to implement…" to "has filed a formal application." o Second paragraph, #5: TKPOA recommends changing to "reduce aquatic weed infestation." o TKPOA strongly agrees with the following statement found on page 2 within the Executive Summary, "Concurrent evaluation of the chemical and non-chemical treatment methodologies is necessary in order to produce comparative results that will assist TKPOA, regulatory agencies, and others in making decisions regarding the combination of future treatment methodologies TKPOA will use to control AIP species." • Section 1 (Introduction) and Section 2 (TKPOA CMT Project Goals), page 3-4: o TKPOA recognizes that the history of aquatic invasive plants (AIP) in the Tahoe Basin is complicated but feels that AIP management history from 1995-2003 is pertinent for consideration and inclusion to the evaluation. As written, the staff report only refers to the discovery of curlyleaf pondweed in 2003. It should be noted that USDA/ARS assisted in the discovery and provided recommendations on potential	David Peterson, Tahoe Keys Property Owners Association (TKPOA) Board of Directors President

Comment Number	Comment	Commenter
	remedies or remedial actions. Further, in 2007, a two-day AIS workshop was held at the UC Davis Tahoe Environmental Research Center (TERC) facility that led to the creation and implementation of the vessel inspection program now employed throughout the Tahoe Basin. o In the fourth paragraph on page 3, TKPOA would like to change the first two sentences to the following: “In 2017, [TKPOA] submitted an application… use of emergency pesticides in surface water. When requested, TKPOA provided …” . As noted in the cover letter transmitting these comments to Lahontan, TKPOA is again requesting that Lahontan consider the application as “time-sensitive” or possibly even an “emergency” given the Tahoe Resource Conservation District’s recent discovery of dense infestations of both curlyleaf pondweed and Eurasian watermilfoil within Lake Tahoe outside of the Tahoe Keys lagoons. Daniel J. Larkin’s 2012 study “Lengths and correlates of lag phases in upper-Midwest plant invasions (Biological Invasions, 2012, 14:827-838) documents the phases of exponential growth for invasive aquatic plants such as those threatening Lake Tahoe proper. o Clarification of statement on page 4. TKPOA does not propose the use of three non herbicide chemicals/products. TKPOA does not propose to use injection of hot water or acetic acid under bottom barriers during the proposed Project. This option was evaluated in the EIR/EIS; however it was not included in the proposed CMT Project submitted to Lahontan in April and June 2021. As such, the first sentence on page 4 should be changed to the following: “The CMT Project also proposes the use of two non-herbicide chemicals/products…”. Additionally, it should be noted that, in previous discussions with Lahontan staff, acetic acid was identified as a pesticide and would, therefore, need to be identified as such (i.e., included in Group A methods) if maintained. TKPOA recommends all references to acetic acid and hot water injection be removed from the Staff Report. • Section 2 (TKPOA CMT Project Goals), page 4: o TKPOA recommends changing the first paragraph to the following: “The primary purpose and goal of the CMT project is to evaluate the effectiveness of multiple AIP treatment methodologies, including chemical and non-chemical methodologies and combinations of both, to identify methodologies that will, if possible: 1) quickly reduce the AIP biomass 2) bring	

Comment Number	Comment	Commenter
	infestation to a level that can be managed by non-chemical treatment methodologies, 3) improve water quality, 4) improve recreational benefits, and 5) reduce aquatic weed re-infestation." o The CMT sites total 41.7 acres rather than 41.4 acres. o There is a reference to CMT sites equaling 24% of the total surface area of the Tahoe Keys lagoons. There is no mention of the percentage of the total for herbicide treatment, which is 11%. • Section 3 (Exemption Request), page 5-6: o TKPOA recommends changing pesticide in item #1 on page 5 to pesticides. o In the last sentence of item #5 on page 6, TKPOA recommends the following change: "The information submitted by TKPOA and presented in the NPDES Permit and FEIR/EIS provide…" • Section 4 (Basin Plan Exemption Process), page 6: o TKPOA requests clarification whether the Exemption would require approval by the State Water Resource Control Board, as it is unclear based on this description. • Section 4.1 (Project Eligibility), page 6-7: o TKPOA recommends inclusion of information on the requirements for emergency or time sensitive projects, as they may be applicable on the facts presented. o TKPOA recommends the following change to the last sentence on page 6, "(2) Bring target aquatic weed infestations to a level that hopefully can be managed over the long term…" o In the Implementation Plan, AIS for priority control work were selected using two primary criteria. First, species were considered based on their ranking in the Regional Plan as "…nonindigenous species perceived to cause significant damage or harm in the Lake Tahoe Watershed…" Secondly, the Lake Tahoe AIS Coordination Committee helped refine the list of priority species to those for which control was determined to be feasible in the Lake Tahoe Basin or those species with significant unwanted effects on restoration goals within the Tahoe Basin (AIS Implementation Plan). Using these criteria, Eurasian watermilfoil and curlyleaf pondweed were determined in the Implementation Plan to be the two-priority invasive aquatic plant species for which there are feasible control actions. As such, the staff report should also identify curlyleaf pondweed as the AIS implementation plan's highest priority AIP threatening Lake Tahoe. o The last sentence of the first full paragraph on page 7 is confusing as written. TKPOA recommends replacing "as having" to "as the lagoons	

Comment Number	Comment	Commenter
	contain" or something to that effect. • Section 4.2 (Basin Plan Exemption Criteria), page 7-15: o As written, the draft Staff Report does not address and/or specifically reference the anti-degradation analysis needed for the NPDES permit, including the findings of the analysis. Additionally, the draft does not refer to the acceptable excursions of water quality for "days to weeks," which is a key exception related to Tier III waters, and specifically pertains to the "21-days" treatment criteria in the draft NPDES Permit. o TKPOA would like it noted that, given the severity and expanse of the aquatic weed infestation in the Tahoe Keys lagoons and now Lake Tahoe as well based on the TRCD's survey and mapping of the Tahoe Keys Complex outside of the lagoons, it is possible that the proposed Project qualifies for time sensitive and/or emergency status. o Criterion 1 (on pages 7) is also satisfied based on tests of LFA and UV-C light performed to date, which indicates that those methods are not feasible at a large scale that could be implemented for the Tahoe Keys lagoons. Please refer to comments provided in Attachment 1 to TKPOA's General Comments on Draft NPDES Permit and associated documents. o Criterion 1 (on page 8): TKPOA understands that, should the proposed Project be approved in January 2022, this approval would not extend to any future proposed projects. Waste Discharge Requirements (WDRs) (Lahontan Regional Water Quality Control Board, Board Order No. R6T-2014-0059) issued to TKPOA in July 2014, charges TKPOA with the "develop[ment] and implement[ation of] best management control measures to limit the spread of viable plant fragments. This order requires submission and implementation of an Integrated Management Plan (IMP) to address aquatic invasive plant species management." (2014 WDRs, Page 11). TKPOA has completed an update of its IMP each year, starting in 2016, and shared a copy of the update with Lahontan Regional Water Quality Control Board (Lahontan). As stated in Staff Report Section 4.2, data collected will be used to inform the TKPOA's Integrated Management Plan (IMP), which applies an integrated pest management approach to aquatic weed control by combining sound ecological principles and research of new technology with proven methods for aquatic plant control. o Criterion 1 on page 8, the included footnote	

Comment Number	Comment	Commenter
	should define/explain the conditions of the conditionally accepted 2016 IMP. o Criterion 2 on page 9: Clarification of statement on page 9: The Project's last updated APAP was submitted on April 30, 2021. An amendment to the Basin Plan Exemption Application for the Tahoe Keys CMT project, Section 4 Monitoring and Reporting Program, was submitted on June 14, 2021. o Criterion 2 on page 9: Clarification of statement. The proposed Project does not propose herbicide application to Lake Tahoe. The sentence "Other control measures…" should be changed from Lake Tahoe to the Tahoe Keys lagoons. o TKPOA strongly agrees with the following statement on page 10 under Criterion 3: "TKPOA is minimizing the chemical application rates to the minimum application of chemical substances that can reasonably be expected for an effective treatment to meet project goals." o Criterion 4 on page 11: For monitoring of treated areas using macrophyte point sampling and hydroacoustic scanning, data would be collected in both the year of treatment as well as the year following treatment to determine the size of the remaining infestation, biovolume, plant growth, and plant health. o Criterion 6 on page 13: Non-herbicide control methods have been implemented in the Tahoe Keys lagoons over the last decade. TKPOA suggests the following change: "Both plans are being implemented and a variety of non-herbicidal control methods have been utilized over the last decade. However, due to the size, density and dominance of the infestation in the Tahoe Keys, these control methods have produced limited results." o Criterion 6 on page 13: For item #2, TKPOA suggests the following change: "TKPOA has been utilizing mechanical control measures to control AIP for many years which have failed…" o Criterion 6 on page 13: TKPOA has evaluated and investigated numerous non chemical control methods. These evaluations are included in the annually updated IMP as well as the Draft EIR/EIS for the proposed Project and are detailed in the reports listed below. These methods are either insufficient to control AIP at the current infestation levels or were deemed infeasible to treat/manage the entirety of the Tahoe Keys lagoons (172 acres). TKPOA suggests these be included as references to support this Criterion 6. ▪ Integrated Management Plan for Aquatic Weeds for The Tahoe Keys Lagoons (2016 – 2020) ▪ Bottom Barrier Monitoring	

Comment Number	Comment	Commenter
	Report (2016-2021) ▪ Boat Backup Station Report (2016-2021) ▪ Potential Treatment Options and Engineering Controls for Aquatic Invasive Plant Mitigation (December 27, 2016) ▪ Biological Control of Aquatic Plants and Potential Use in the Tahoe Keys Lagoons (March 27, 2017) ▪ Technical Memorandum: Tahoe Keys – West Channel Barrier (October 6, 2017) ▪ Evaluation of Mechanical Control Methods for Aquatic Weeds in the Tahoe Keys Lagoons (March 27, 2017) ▪ Evaluation of Floating Treatment Wetlands for Potential Use in the Tahoe Keys Lagoons (March 30, 2017) ▪ Technical Memorandum: Tahoe Keys – Potential Cost v. Benefit and Condition Assessment Approach of the Existing Hydraulic Circulation System (December 12, 2017) ▪ Evaluation of Active and Passive Skimmers for Macrophyte Fragment Collection (April 19, 2018) ▪ Non-Chemical Combination Control Methods Test Summary Report for the Tahoe Keys Property Owners Association (May 15, 2021) ▪ TKPOA Water Circulation System Project Description (2020) ▪ TKPOA Water Circulation System Report (2021) ▪ TKPOA Laminar Flow Aeration End of Season Report (2019-2021) ▪ University of Nevada, Reno – Preliminary Results of UV-C Exposure in Tahoe Keys Lagoons (2020) ▪ 2020 TKPOA West Channel Control Projects End of Season Report (2020) o Reports summarizing results from the 2021 activities (UV-C and LFA specifically) shall be submitted to Lahontan as soon as possible and will be included in the 2021 TKPOA IMP update that will be submitted to Lahontan staff January 31, 2022. Preliminary results confirm prior year's data on LFA and UV-C as infeasible to treat at a large scale (172 acres). o Criterion 7, Page 14-15: "The measurement/analyses will be done at all treatment locations and will be used to determine the magnitude and potential impact to, and the post-project recovery of, non-target organisms and rare/threatened or endangered species to pre-treatment conditions." TKPOA requests that the sentence end with "non-target species" and the remainder of the sentence be deleted, as there are no rare, threatened, or endangered species to be monitored. • Section 5 (Summary), Page 15: "Some of herbicide treatments may receive follow-up…" The proposed Project identifies that both herbicide and non-chemical Group A methods will be evaluated to determine if follow-up Group B methods will be	

Comment Number	Comment	Commenter
	employed. Therefore, TKPOA recommends changing the sentence to state, “Both herbicide and non-chemical treatments may receive follow-up…”	

Summary Comment 11.30

Commenter requests specific edits to the resolution granting a pesticide exemption.

Summary Response 11.30

The Water Board either included within the resolution the suggested edits to text or rejected the suggestions. The rejected comments and suggested edits are explained below. If the commenter’s suggested edit is not included in the descriptions below, it was included in the updated resolution. Responses to the unincorporated TKPOA specific comments on the Draft Resolution are as follows:

In response to TKPOA General Comment on Staff Report number 1:

Language concerning an initial and revised application for an exemption have not been added to the resolution. The resolution discusses the information that is the subject of the action being considered by the Lahontan Water Board.

In response to TKPOA General Comment on Staff Report number 5:

The resolution was not updated to add “if possible.” The nature of the CMT is to test if the methods used for treatment will improve water quality. Adding “if possible” is unnecessary for the explanation of goals. The resolution was not updated to change ‘re-infestation” to “infestation.” The project goals mirror language used in the EIR/EIS.

In response to TKPOA General Comment on Staff Report number 6:

We corrected the name of University of Nevada, Reno; however, we have not inserted “successfully” into the last sentence. This addition is redundant and not necessary.

In response to TKPOA General Comment on Staff Report number 7:

Water Board staff did not remove the words “or later”.. This flexibility allows the discharge to occur when there is a hydraulic gradient that shows water flowing into the lagoons from Lake Tahoe. There may also be other reasons for the CMT to begin in a different year of the permit term and “or later” describes the flexible start date of the CMT.

In response to TKPOA General Comment on Staff Report number 8:

The Water Board staff did not include language about exceptions in the case of finding an emergency. To be categorized as an Emergency, the project must meet the Basin Plan Prohibition criteria defined in the Public Resource Code Section 21060.3 and the CEQA definition of an Emergency in Section 15269 (a)(b)(c) of the CEQA guidelines.

The CMT does meet the definition of an emergency project. Please also see Summary Response 1.5.

Comment Table 11.30

Comment Number	Comment	Commenter
385.03	TKPOA has prepared a list of comments regarding the Project for the Lahontan Regional Water Quality Control Board's (Lahontan's) consideration. These comments can be found in te bullets below related to the Draft Resolution. TKPOA general comment on Draft Resolution: • TKPOA suggests that the term "Project" should be capitalized throughout to clearly refer to the CMT Project. TKPOA Specific comments on Draft Resolution: 1. TKPOA requests the addition of initial and revised applications to demonstrate the long term of this proceeding. 2. TKPOA recommends the addition of 'invasive' before 'non-native.' In addition, TKPOA recommends the following change to the second sentence: "Over the last decade, TKPOA has implemented a variety of non-chemical control methods in the Tahoe Keys Lagoons." 3. No comment. 4. No comment. 5. TKPOA recommends the inclusion of 'if possible' to (3) improve water quality. In addition, TKPOA recommends the following change: (5) reduce invasive weed infestation. 6. TKPOA recommends changing the reference to "University Nevada Reno" to "University of Nevada, Reno." TKPOA recommends the addition of 'successfully" in the last sentence between "to" and "treat" ("…have the potential to successfully treat…"). 7. Regarding expected start of proposed CMT Project, TKPOA recommends removing "or later" as the Project is expected to start Spring 2022. 8. TKPOA recommends including language about exceptions in the case of a finding of emergency. 9. In the first sentence, TKPOA recommends removing the comma between endothall and triclopyr.10. No comment. 11. No comment. 12. No comment. 13. The acronym for the Monitoring and Reporting Program (MMRP) is included twice in this paragraph. TKPOA recommends removing the second definition. 14. No comment. 15. No comment. 16. No comment.	David Peterson, Tahoe Keys Property Owners Association (TKPOA) Board of Directors President

Summary Comment 11.31

A separate injection method of Rhodamine Water Tracer is necessary to be used for the application of Triclopyr granules.

Summary Response 11.31

Comment Table 11.31 Rhodamine WT will be applied as a liquid formulation mixed with the aquatic herbicide being discharged in each treatment area. For treatment areas receiving granular triclopyr applications, Rhodamine WT will be applied immediately after the application of the granular form of triclopyr. This is already described in the Fact Sheet of the NPDES permit and no edits are necessary.

Comment Number	Comment	Commenter
341.11	• Regarding Rhodamine Water Tracer (WT) Dye (RWT), we request the following changes in the NPDES so that RWT can be used most effectively as part of the CMT project. A. RWT dye, as a real-time surrogate for herbicide movement, is proposed to be applied by two methods: 1. Mixed with the liquid formulations of herbicides (endothall); and 2. As a separate injection immediately following the applications of granular herbicide (triclopyr). The separate injection method is necessary because the dye is a liquid and thus needs to be injected separately from the granular herbicide application. The current NPDES restricts RWT use as only when mixed with herbicide.	TKPOA

Summary Comment 11.32

Use Rhodamine to monitor the movement of water outside of the herbicide treatment area to test the effectiveness of LFA treatment.

The use of RWD used in conjunction with the ADP data recording to measure the doppler current within the West Channel would allow TKPOA to evaluate the hydraulic current, prior to the application of aquatic herbicide, to determine if the proper hydraulic gradient exists, as a requirement of the NPDES permit.

Include the “Order” allowing the use of RWD, prior to the aquatic herbicide exemption and during the use of the LFA.

Summary Response 11.32

Protection of drinking water supplies is specifically evaluated in the environmental review documents. Previous studies testing the use of rhodamine dye supported the unliklihood of the aquatic herbicides making it into Lake Tahoe. In addition, the inclusion of turbidity curtains would further impede the migration of herbicides toward Lake Tahoe, and detectable concentrations of herbicides would not near water supply intakes. Monitoring of Rhodamine WT dye and herbicide chemicals would be required to determine the extent and duration of detectable concentrations. Additional details on monitoring and adaptive management measures are included in the MMRP. Rhodamine dye applied with herbicide products at test sites will be used to track performance of the double turbidity curtain barriers and migration of dissolved chemicals.

The NPDES permit was not modified to allow for additional use of rhodamine WT.

Comment Table 11.32

Comment Number	Comment	Commenter
341.12	B. As part of the LFA treatments. TKPOA has an interest in using the dye to monitor the hydraulic movement of lagoon water in areas outside the aquatic herbicide application, specifically for the laminar flow aeration (LFA) treatment area. This would permit TKPOA to further analyze the effect of the movement of water from the diffusers on the nearshore areas, further evaluating the efficacy of LFA as an aquatic weed method for the Tahoe Keys lagoons.	TKPOA
341.13	C. TKPOA also seeks the option of using RWT dye as a supplement to the use of ADP (doppler current measurement) to assess potential net movement of dye (and thus herbicides) into and through the West Channel during the CMT project. Therefore, we request that RWT permit, or “Order” be included with the approval of the NPDES and the monitoring conditions for RWT use be those that were required in prior Orders that permitted its use by TKPOA staff or consultants. Since RWT is not a pesticide, it can be applied (injected separately, or mixed with herbicide) by a trained staff person and does not require handling or application by a Certified Pesticide Applicator. The location(s) for RWT use, other than those already designated for herbicide application, will be provided to Lahontan 30 days prior to use. The initial target concentration (10 ppb) will be used and is as stated in the draft NPDES.	TKPOA
341.14	Note: As currently described in the Draft NPDES permit,” the discharge of Rhodamine WT not associated with an aquatic herbicide application event is prohibited” (Section III, L). We request that the RWT “Order” permitting its use be included in the NPDES, or as an amendment to the NPDES.	TKPOA

Summary Comment 11.33

TKPOA wants to consult with Lahontan staff on a weekly basis to review the ADP data and determine the appropriate date to start the CMT.

Summary Response 11.33

The discharge of residual aquatic herbicides and Rhodamine WT to the Tahoe Keys Main Lagoon when the waters in the Main Lagoon are flowing to Lake Tahoe is prohibited. The NPDES permit does not require that the application occur in year 1 of the permit tern. This flexibility allows the discharge to occur when there is a hydraulic gradient that shows water flowing into the lagoons from Lake Tahoe

Executive Officer approval of the APAP amendments must be obtained before TKPOA applies pesticides. A new requirement in the second APAP submittal has been added as NPDES Permit section VI.C.5. to read: “A written summary of current and expected hydrologic conditions at the time of discharge (e.g, snowpack, local hydrology, hydraulic gradient in Lake Tahoe) demonstrating Prohibition III.H will be met at the time of discharge.”

In addition, section IV.D of Attachment E of the NPDES permit has been added to require monitoring of the hydraulic gradient. This new section states: “The Discharger must monitor the hydraulic gradient or flow of water between the Tahoe Keys and Lake Tahoe prior to herbicide application and at a weekly frequency during the treatment event.“ This will ensure that water current and flow is in compliance with Discharge Prohibition Section III.H of the NPDES permit.

Comment Table 11.33

Comment Number	Comment	Commenter
341.15	• Based on the unpredictability of snowpack and flows into the Tahoe Keys lagoons in 2022, should drought conditions persist with no discernable net flow into the lagoons by late February/early March, TKPOA shall consult with Lahontan staff to determine next steps with regards to the Control Methods Test, should the test be approved. TKPOA proposes to measure flow into the Main Lagoon using an acoustic doppler profiler (ADP) stationed in the West Channel. Data shall be collected and reviewed weekly. Consultations would coincide with submittal of the Aquatic Pesticide Application Plan (APAP), approximately 60 days following the Lahontan Board of Directors (Board) decision. If conditions are not sufficient to permit valid test conditions, the TKPOA proposes to postpone the treatment.	TKPOA

Summary Comment 11.34

The Sierra Club's recommendation that a physical barrier be placed across the west channel is not practical or legally feasible, and would not bring AIP under control.

Summary Response 11.34

The IEC/IS found several potentially significant impacts with the proposed impermeable West Channel barrier, including interference with the movement of native or migratory fish or wildlife, changes in hydrology, and impacts to recreational boating and boat traffic. The West Channel barrier was not included in the 2018 application due to these potentially significant environmental impacts and consultation with the LWB indicating that double turbidity curtain barriers would be required to limit the migration of herbicides from test sites toward the connecting channel. In addition, a barrier would not serve as an alternative to the proposed project because it is not a treatment of the weeds, thus it

would not provide any information on what technologies can be used to manage weeds. The concept of a barrier was considered during the development of the EIR/EIS and was eliminated from further analysis for multiple reasons including: (1) not meeting some project goals and objectives, (e.g., maintain or improve beneficial uses of navigation and recreation), (2) increased potential for harmful algal blooms, and (3) testing of this option is unnecessary. See also Summary Response 6.4.

Comment Table 11.34

Comment Number	Comment	Commenter
166.06	4. The Sierra Club's recommendation that a physical barrier be placed across the west channel is not practical or legally feasible, and would not bring AIP under control	Albert Chandler

Summary Comment 11.35

The factsheet should include a discussion regarding the potential synergism of triclopyr and endothall to provide rationale for mixing triclopyr and endothall in the receiving waters.

Summary Response 11.35

Triclopyr and endothall are not proposed to be used together in any single treatment area or in treatment areas that share a boundary or are immediately adjacent to each other. BMPs required under the permit (e.g., turbidity barriers) will minimize exchange of water between treatment areas and receiving waters therefore mixing of endothall and triclopyr in receiving waters is not expected to occur. The following text was added to the permit in section F.II.B.1:

“**Aquatic Herbicide Synergism:** The Discharger does not propose to use endothall in any treatment area immediately adjacent to, or sharing a boundary with, a triclopyr treated treatment area and vice versa, and so no synergistic effects are expected.”

Comment Table 11.35

Comment Number	Comment	Commenter
386.01	EPA recommends including a discussion in the permit and/or factsheet regarding the potential synergism of triclopyr and endothall to provide rationale for mixing triclopyr and endothall in the receiving waters.	USEPA

Summary Comment 11.36

The permit and factsheet should clarify the permit is authorizing the discharge of pesticide residuals, not pesticides.

Summary Response 11.36

The Discharge Description in Table 2 of the permit, Sections I and IV of the permit and the Fact Sheet discussion in Section F.IV.B.2 describe the discharge regulated by the permit as a discharge of residual aquatic herbicides.

Comment Table 11.36

Comment Number	Comment	Commenter
386.02	EPA recommends including language in the permit and factsheet that clarifies the permit is authorizing the discharge of pesticide residuals, not pesticides.	USEPA

Summary Comment 11.37

The permit and/or factsheet should include the rationale regarding why 7 days was chosen as the minimum time after the application event that the permittee must start conducting post-event monitoring.

Summary Response 11.37

The seven-day timeframe to initiate post-event monitoring is consistent with the Section 4.1 of the Basin Plan pesticide discharge prohibition exemption criteria and the State Water Board General Order 2013-0002-DWQ (CAG 990005) for aquatic weed control using pesticides. The following text was added to the permit in Section F.V.A:

“The discharger must initiate receiving water compliance monitoring a minimum of seven (7) days following the application event consistent with the requirements of section 4.1 of the Basin Plan.”

Comment Table 11.37

Comment Number	Comment	Commenter
386.03	EPA recommends including a rationale in the permit and/or factsheet regarding why 7 days was chosen as the minimum time after the application event that the permittee must start conducting post-event monitoring.	USEPA

Summary Comment 11.38

The permit should include the rationale for the time period listed in the permit that defines the temporal boundary between pesticide and pesticide residual.

Summary Response 11.38

The application of pesticides for aquatic weed control is not necessarily considered a discharge of pollutants according to the *National Cotton Council of America v. U.S. EPA* decision and other applicable case law. The regulated discharge in this Order is the discharge of residual herbicides (i.e., residual aquatic herbicides). As discussed in the

Fact Sheet of the NPDES permit, the point at which an aquatic herbicide becomes a residue is not precisely known and varies depending on the type of aquatic herbicides, application method and quantity, water chemistry, etc. Therefore, in the application of aquatic herbicides, the exact effluent is unknown. The Water board has indicated that Receiving waters are waters of the United States anywhere outside of the treatment area at anytime and anywhere inside the treatment area 21 days after application. The duration is explained in Fact Sheet Section V.A of the NPDES. This section has been revised for clarification from: ““The 21-day time period was established based on endothall and triclopyr half-lives and the number of days following an application event endothall and triclopyr are at concentrations in treatment areas efficacious at killing target aquatic weeds.“ The revised language is as follows: “The 21-day time period to achieve compliance represents the treatment duration and is established based on endothall and triclopyr half-lives and the number of days following an application event endothall and triclopyr are at concentrations in treatment areas that are lethal to target aquatic weeds. “

Comment Table 11.38

Comment Number	Comment	Commenter
386.04	EPA recommends including rationale for the time period listed in the permit that defines the temporal boundary between pesticide and pesticide residual.	USEPA

Summary Comment 11.39

On p. F-28 it says that the 100 micrograms per liter receiving water limit for endothall is based on the US EPA National Primary Drinking Water Regulations. Endothall also is included in the California Code of Regulations under Table 64444-A. Table 64444-A is incorporated by reference into the Lahontan Region Basin Plan as water quality objectives to protect MUN beneficial uses. EPA recommends listing the Lahontan Regional Basin Plan as the rationale for the magnitude of the receiving water limit.

Summary Response 11.39

The reference for the basis for the endothall MCL for drinking water was revised in the permit in Section F.V.A.1 as follows:

“**Endothall:** The 100 µg/L endothall receiving water limit is based on the established maximum contaminant level (MCL) for endothall specified in title 22, California Code of Regulations, division 15, chapter 15, article 5.5, § 64444(a), maximum contaminant levels for volatile organic chemicals.”

Comment Table 11.39

Comment Number	Comment	Commenter
386.05	On p. F-28 it says that the 100 micrograms per liter receiving water limit for endothall is based on the US EPA National Primary Drinking Water Regulations. Endothall also is included in the California Code of Regulations under Table 64444-A. Table 64444-A is incorporated by reference into the Lahontan Region Basin Plan as water quality objectives to protect MUN beneficial uses. EPA recommends listing the Lahontan Regional Basin Plan as the rationale for the magnitude of the receiving water limit.	USEPA

Category 12 Other and questions

Summary Comment 12.1

What are current levels of pesticides and household chemicals in Lake Tahoe due to urbanization?

What are the cumulative impacts of pesticides and household chemicals in the food chain, to include important Washoe foods like Lahontan cutthroat trout?

Summary Response 12.1

The permit authorizes the discharge of the aquatic herbicide residues of endothall and triclopyr, Rhodamine WT aquatic dye and lanthanum modified clay. As described in Attachment G of the NPDES permit, endothall and triclopyr has never been permitted in the Tahoe Keys Lagoons and waters of Lake Tahoe. Receiving water quality data on endothall and triclopyr in Lake Tahoe is not available. However, endothall and triclopyr are man-made substances that do not persist in the environment.

Information regarding the level of pesticides and household chemicals currently in Lake Tahoe due to urbanization is not within the scope of the CMT. Moreover, the permit does not authorize the discharge of household chemicals to waters of the state or address impacts of general urbanization runoff. Water quality data for endothall acid, endothall dipotassium salt, triclopyr acid, TCP, and 3,6-DCP will be collected by TKPOA from water and sediment in treatment areas prior to chemical discharges. This information will be provided in publicly available reports to the Lahontan Water Board.

Comment Table 12.1

Comment Number	Comment	Commenter
1.02	What are current levels of pesticides and household chemicals in Lake Tahoe due to urbanization?	James Gatzke
1.03	What are the cumulative impacts of these pesticides and household chemicals?	James Gatzke
1.04	How do these pesticides and household chemicals move through the food chain into important Washoe foods like Lahontan cutthroat trout?	James Gatzke

Summary Comment 12.2

What is the status of the microbiology in Tahoe Keys Lagoons waters and sediments?

Summary Response 12.2

Background data on the benthic conditions in the Tahoe Keys Lagoons can be referenced in:

- Environmental Science Associates (ESA). 2020. 2019 Fish and Benthic Macroinvertebrate Surveys in Tahoe Keys Lagoons. Prepared for Tahoe Regional Planning Agency.
- SEA. 2017. Benthic Macroinvertebrate (BMI) 2016 Sampling Report for the Tahoe Keys Lagoons. Prepared for Tahoe Keys Property Owners Association by Sierra Ecosystem Associates. South Lake Tahoe, CA.

There are no standards or indexes for microbiology to use as standards to identify a healthy system. There have been indexes and data gathered on benthic macroinvertebrates and several years of data generated on Tahoe Keys Lagoons.

The above noted benthic monitoring data in addition to water quality data, sediment quality data, macrophyte survey data and fish survey data collected within the Tahoe Keys Lagoons project area are also presented and summarized in the Tahoe Keys Lagoons Aquatic Weed Control Methods Test Draft EIR/EIS, July 6, 2020.

Comment Table 12.2

Comment Number	Comment	Commenter
1.07	What is the status of the microbiology in Tahoe Keys Lagoons waters and sediments?	James Gatzke

Summary Comment 12.3

Where have the aquatic herbicides previously been tested, what is the aquatic environment where tests occurred, and what monitoring data for these tests are available.

Summary Response 12.3

Endothall and triclopyr are commonly utilized aquatic herbicides in aquatic weed control programs throughout California, the United States and the world. Extensive information on the aquatic environments these herbicides have been utilized in and data on acute and chronic effects is found in *Environmental Fate and Ecological Risk Assessment of Endothall – Revised, April 22, 2005, USEPA, EPA-HQ-OPP-2009-0081-0143* and *Triclopyr (Acid, Choline salt, TEA salt, BEE): Draft Ecological Risk Assessment for Registration Review, September 30, 2019, USEPA, EPA-HQ-OPP-2014-0576-0026.*

Comment Table 12.3

Comment Number	Comment	Commenter
1.08	Where has the aquatic herbicide previously been tested?	James Gatzke
1.09	What data exists for those tests relating to questions 1) to 3)? *see attachment	James Gatzke
1.1	What is the aquatic environment where tests occurred?	James Gatzke

1.11	What is the monitoring history at the test sites?	James Gatzke

Summary Comment 12.4

What criteria will be used to determine how or if to move forward on this project?

Summary Response 12.4

The TRPA Governing Board and Lahontan Water Board must provide final approvals for the project to move forward. The Lahontan Water Board has jointly prepared an EIR/EIS with TRPA pursuant to the California Environmental Quality Act. The Basin Plan contains prohibitions that apply to all surface water of the Lahontan Region. Chapter 4, section 4.1 of the Basin Plan specifies the following waste discharge prohibition: “The discharge of pesticides to surface or ground waters is prohibited.” Exemptions to this prohibition may be allowed subject to the criteria detailed in the section entitled “Exemption Criteria for Aquatic Pesticide Use” in Chapter 4, section 4.1 of the Basin Plan. In addition, the Lahontan Water Board will consider issuance of an NPDES permit, and must determine if the issuance is consistent with state and federal law. The Lahontan Water Board will consider adoption of an MMRP pursuant to state law.

Comment Table 12.4

Comment Number	Comment	Commenter
1.14	What criteria will be used to determine how or if to move forward on this project?	James Gatzke

Summary Comment 12.5

What are the names of aquatic herbicides that will be used and what are their active ingredients that target the aquatic weeds?

Summary Response 12.5

The proposed aquatic herbicide active ingredients to be used are endothall and triclopyr. Endothall will affect curlyleaf pondweed, and Eurasian watermilfoil and triclopyr will only affect Eurasian watermilfoil There are many aquatic herbicide product formulations containing these active ingredients. TKPOA has proposed to use the endothall product Aquathol K and the triclopyr products Renovate 3 (liquid form) and Renovate OTF (granular form).

Comment Table 12.5

Comment Number	Comment	Commenter
6.01	Thank you for the update on plans to find good ways to control weed growth. Can you share the name(s) of the aquatic herbicide(s) you plan to use to control/prevent the growth of the various weed species. Please include	Jim DeClerk

	especially the agents that target invasive species such as Eurasian Watermilfoil.	

Summary Comment 12.6

Can I still swim in Lake Tahoe due to the use of herbicides? Is it still safe for my kids to swim in lake Tahoe?

Summary Response 12.6

Yes, no swimming restriction outside the Tahoe Keys Lagoons will be necessary to conduct the tests. Contact and non-contact recreational activities will be limited within the Tahoe Keys Lagoons for the approximately three-week duration of the chemical tests. For additional information please see Summary Response 4.4 and 8.10

Comment Table 12.6

Comment Number	Comment	Commenter
36.04	Can I still swim in Lake Tahoe due to the use of herbicides? Is it still safe for my kids to swim in lake Tahoe?	Pablo Ortega

Summary Comment 12.7

How may I check the comments listing to verify that my comments were received and added?

Summary Response 12.7

The Lahontan Water Board will compile a response to comments document and copies of this document will be available to the public. See Summary Response 8.10.

Comment Table 12.7

Comment Number	Comment	Commenter
44.01	Hi. Please accept my attached comments concerning the Tahoe Keys Control Methods Test (CMT). How may I check the comments listing to verify that my comments were received and added?	Tom Spencer

Summary Comment 12.8

I would like to be able to follow this project and learn about the successes and failures we might experience in the CMT. A public weblink for this test project to access all of the reports, maps, plans, readings, videos, live feeds would greatly enhance public education and acceptance of science based methods for protecting Lake Tahoe.

Summary Response 12.8

On document availability, see summary response 3.2.

Regarding enforcement, please see Summary Response 9.11.

Regarding boat inspections, please see Summary Response 9.5.

Comment Table 12.8

Comment Number	Comment	Commenter
63.05	Urgent need for a public education effort to inform and educate Tahoe Basin residents and their tenants; and visitors, tourists and guests on the importance of not introducing any nonnative aquatic species into Lake Tahoe or it's contributing water bodies. This effort should include prominently advertising the potential penalties and costs of remediation for introduction of non-native aquatic species. Follow-up with prosecutions as necessary. Bringing the public along in the use of science to evaluate and mitigate impacts to the resources of concern, takes a strategic approach. This project lends itself to that overall effort. As a citizen scientist, I would like to be able to follow this project and learn about the successes and failures we might experience in the CMT. For example, the placement of underwater web-cams in the test areas would allow the public to follow the changes in water quality and build transparency in the process. A public weblink for this test project to access all of the reports, maps, plans, readings, videos, live feeds would greatly enhance public education and acceptance of science based methods for protecting Lake Tahoe.	Gina Thompson

Summary Comment 12.9

How does the lack of buffer between landscape and lagoon waters impact water quality, how much buffer is needed to protect water quality and how do aquatic herbicides address the root problem of poorly designed lagoons?

Summary Response 12.9

In general, buffers between landscape and waterways can help reduce runoff of fertilizers and pesticides from landscape areas to waterways. The amount of buffer required to protect water quality is highly dependent on site-specific factors including climate zone, land slope and buffer composition. The permit authorizes the one-time use of the aquatic herbicides endothall and triclopyr to provide rapid 'knockdown' of aquatic weed growth followed by non-chemical methods to maintain long-term control of aquatic weed growth. The permit does not regulate nor require changing current physiographic features of the lagoons since such activities where not proposed in the Dischargers

Report of Waste Discharge. Please see Summary Response 2.6, 4.5, and 9.4 for additional information.

Comment Table 12.9

Comment Number	Comment	Commenter
1.05	I look at the aerial view of Tahoe Keys and see zero buffer between manicured landscapes and the water. How does that impact the water quality when there is no riparian buffer to filter contaminants?	James Gatzke
1.06	How much of a buffer is needed to bind up and remediate chemicals coming from Tahoe Keys homes?	James Gatzke
1.12	How does aquatic herbicide treatment address the root problem – a poorly designed lagoon that favors weeds?	James Gatzke

Summary Comment 12.10

The 60-day comment period should not have been shortened to 45-days.

Summary Response 12.10

The Lahontan Water Board is required to provide a 30-day public comment period on the NPDES permit. (Water Code § 13167.5; 40 CFR § 124.10(b)(1).) Taking into account the public's interest in the NPDES permit, the Lahontan Water Board provided a 45-day public comment period. Lahontan Water Board staff responded to a request to extend the period of public comment on the permit to 60-days on October 11, 2021. The Lahontan Water Board did not extend the comment period in response to this request.

Comment Table 12.10

Comment Number	Comment	Commenter
324.01	The Lahontan Water Board, recognizing the complexity of Tahoe Keys weed control and the essential need to protect Lake Tahoe, directed the staff to provide a 60-day comment period, which was later arbitrarily shortened to 45 days. I have been assisting in the preparation of comprehensive comments; this exhausting personal experience confirmed that the 60-day comment period should not have been shortened.	John Moore
163.01	Please see the attached letter from the Sierra Club's Tahoe Area Group regarding the comment deadline of November 1, 2021 for reviewing the draft permitting documents that were released on September 15, 2021. We hope you will respect your commitment from last November's workshop to provide the public 60 days rather than 45 days to review these draft permitting documents and extend the comment period to	Tobi Tyler

Comment Number	Comment	Commenter
	November 15, 2021. We hope to hear from you soon regarding this matter.	

Summary Comment 12.11

The public submitted a large number of substantive comments on the DEIR-DEIS. The LWB responses to these comments and the FEIR-FEIS were not available during the comment period. The responses and the FEIR-FEIS would have informed the public about modifications of the CMT made in response to the comments and very likely would have provided significant assistance in the preparation of informed comments on the draft permitting documents.

Summary Response 12.11

Responses to comments on the DEIR/DEIS and modifications to the DEIR/DEIS are included in the FEIR/FEIS. The Lahontan Water Board is not required to have the FEIR/FEIS available for review during the public comment period for the resolution granting an exemption to the pesticides prohibition, the NPDES permit, and the MMRP The FEIR/FEIS was posted to the Water Board webpage at least 10-days in advance of the Board meeting to consider adoption of the FEIR/FEIS.

Comment Table 12.11

Comment Number	Comment	Commenter
324.03	The public submitted a large number of substantive comments on the DEIR-DEIS. The LWB responses to these comments and the FEIR-FEIS were not available during the comment period. The responses and the FEIR-FEIS would have informed the public about modifications of the CMT made in response to the comments and very likely would have provided significant assistance in the preparation of informed comments on the draft permitting documents.	John Moore

Summary Comment 12.12

The Tahoe Water Suppliers Association would like their independent review of this Tentative Resolution, Tentative WDR and NPDES Permit, and Mitigation Monitoring and Reporting for the Control Methods Test by Water Quality & Treatment Solutions Inc. included as part of the formal record.

Summary Response 12.12

The Lahontan Water Board received the comment from Dan Askenaizer with Water Quality & Treatment Solutions Inc. on November 1, 2021 and responses to the comments are included in this document

Comment Table 12.12

Comment Number	Comment	Commenter
272.15	13. In addition to this letter, the Tahoe Water Suppliers Association has commissioned an independent review of this Tentative Resolution, Tentative WDR and NPDES Permit, and Mitigation Monitoring and Reporting for the Control Methods Test by Water Quality & Treatment Solutions Inc.The consultant comments are forthcoming and we ask these also be included as part of the formal record. Thank you for the opportunity to comment.	Tahoe Water Suppliers Association

Summary Comment 12.13

Will UV light treatment neutralize the effects of the herbicides?

Summary Response 12.13

UV light treatment results in fatality to plants due to ultraviolet light exposure of the plant tissues. Aquatic herbicide residues are not expected to migrate from treatment sites. However, UV light could increase photodegradation of any aquatic herbicide residues that are present in UV light treated areas.

Comment Table 12.13

Comment Number	Comment	Commenter
138.04	I'm hoping that the laser will destroy not only the weeds, but will it neutralize the effects of the herbicide? Please educate us further on this new strategy. I'm looking forward to learning more, although I may not be able to attend the meeting due to a timing conflict that day.	Marilyn Sunia

Summary Comment 12.14

The bubble curtain at the entrance to the main lagoon did not work for 2 critical months during the summer of 2020. Estimating the effectiveness of the bubble curtains is difficult; the operation of a double bubble curtain in 2021 will improve estimation.

Summary Response 12.14

A bubble curtain at the West Channel entrance from the Main Lagoon to Lake Tahoe has been in place since 2018 and was designed and installed to prevent plant fragments from the Main Lagoon entering Lake Tahoe. The system requires general maintenance and can have failures.

Aeration systems, such as Laminar Flow Aeration (LFA) are expected to impede the potential for aquatic herbicide residuals to enter Lake Tahoe. However, LFA is being tested as part of the CMT to determine if it will be an effective method in reducing aquatic invasive species. See summary response 9.1

Comment Table 12.14

Comment Number	Comment	Commenter
305.064	The last paragraph of section II.A discusses the bubble curtain at the entrance to the main lagoon but fails to mention that it did not work for 2 critical months during the summer of 2020. The paragraph also does not mention that the floating bins' fragment-capturing performance was so unsatisfactory that the fragments were captured by manual skimming during the summer of 2021. Estimating the effectiveness of the bubble curtains is difficult; the operation of a double bubble curtain in 2021 will improve estimation.	Tahoe Area Group of the Sierra Club

Summary Comment 12.15

I recognize the regulatory agencies do not have the authority to require a thorough evaluation of the test control methods project. However, it will be imperative for the project proponents to conduct a thorough and statistically valid study and report results in order to support future herbicide applications.

Summary Response 12.15

The Lahontan Water Board has the authority to regulate discharges into waters of the state and establish monitoring requirements. It is not responsible for conducting the discharger's planned evaluation of the CMT methods after the CMT is complete.

Comment Table 12.15

Comment Number	Comment	Commenter
263.11	9. I recognize the regulatory agencies do not have the authority to require a thorough evaluation of the test control methods project. However, it will be imperative for the project proponents to conduct a thorough and statistically valid study and report results in order to support future herbicide applications.	Lauri Kemper

Summary Comment 12.16

As someone who's not a full-time resident, I'm very disappointed that the upcoming Water Quality Forum evidently will not be accessible on-line.

Summary Response 12.16

The TKPOA water quality forum was not an event hosted by the Lahontan Water Board. The Water Board will consider whether to certify an Environmental Impact Report, grant an exemption to prohibition on aquatic pesticides, issue a National Pollutant Discharge Elimination System (NPDES) permit, and adopt a Mitigation and Monitoring Reporting Program at the January 12 & 13, 2022 Water Board meeting

Comment Table 12.16

Comment Number	Comment	Commenter
8.02	As someone who's not a full-time resident, I'm very disappointed that the upcoming Water Quality Forum evidently will not be accessible on-line.	Gerry Kerbyson

Category 13 Drinking Water

Summary Comment 13.1

The aquatic invasive species in the Tahoe Keys Lagoons will affect lake clarity, water quality, and spread to other parts of the lake if chemical treatment is not applied to the weed and plant growth in the lagoons

Summary Response 13.1

Support of the Controlled Measures Test using chemical means in part is noted.

Comment Table 13.1

Comment Number	Comment	Commenter
28.01	We need to treat the Tahoe Keys Lagoons with the chemical treatment the University of California has developed after a long study on this project. If we do not it is only going to get worse and become polluted to the point it will damage the water quality for our drinking water. The lack of destroying the weeds in the Lagoons has caused the weeds to spread though out the lake and will soon become a major problem though out the lake. This will affect the clarity and quality of the lake water and will in turn effect our drinking water. It's time to apply the chemical and get rid of the weeds and plant growth in our Lagoons.	Gary Schenck

Summary Comment 13.2

Herbicide application to treat invasive plants is not supported due to the lake being a source of drinking water. A more ecologically friendly solution is requested.

Summary Response 13.2

Herbicide application is one of a suite of chemical and non-chemical methods being evaluated to control the proliferation of aquatic invasive species in the Tahoe Keys lagoon. The risk of herbicides being introduced to community public water systems that supply drinking water from source water intakes in the lake was evaluated in the DEIR/EIS in Section 3.2.1 (pages 3.2-5 and 3.2-9). This evaluation found that mobilization of herbicides from the Tahoe Keys lagoon to drinking water intakes in the lake is unlikely due to hydraulic flow conditions in the lake, distance from the test application site to source water intakes, and implementation of best management practices to confine herbicide application to the test area.

Comment Table 13.2

Comment Number	Comment	Commenter
135.01	We have property at Lake Tahoe and depend on the Lake for our water supply. The idea that herbicides would be used in	Wallace Hayes,

Comment Number	Comment	Commenter
	the lake even for a test program is unthinkable. We are warned daily about keeping our water supplies as pure as possible and to think that it would be OK to purposely add a poison to the water supply is beyond comprehension. I know the Keys has a major problem with invasive plants and many control techniques have been tried that have been largely unsuccessful. However, I also know that there is a technology that has shown real promise to solve the problem and this technique does not add any harmful chemicals to the water. This would be a much more ecologically friendly solution and should be the solution of choice to preserve the purity of Lake Tahoe water. Herbicides should never ever be considered an option. As property owners with a personal stake in this issue, we oppose the test use of herbicides to treat invasive plants growing in the lake and we expressly ask that you do not issue a permit for the use of herbicides.	Harald Oyen, Nancy Svennungsen
2.01	I must strenuously object to anyone putting herbicide into Lake Tahoe. This lake is the source for drinking water for the entire basin as well as downstream cities like Reno and Sparks	Robert Pavese
7.01	Please do not approve the use of herbicides in Lake Tahoe. It is my drinking water.	N/A
36.01	How will the use of herbicides affect the communities that use Lake Tahoe water for drinking water and recreation? I was shopping at the village market in Incline Village last week. When I overheard a lady who was looking at the display for bottled drinking water. She asked the clerk, which bottled water was the best. She stated that she could no longer drink Lake Tahoe tap water because she had heard that the Tahoe Keys were dumping poison into the lake. I stepped up and explained the Tahoe Keys have not dumped poison into the lake, yet. I explained that Tahoe has some of the best water in the world and that you should feel privileged to be able to drink it. The clerk agreed. This shows that just the perception of herbicides being used in Lake Tahoe has a negative effect on the Lake Tahoe community's drinking water.	Pablo Ortega
73.05	We at Lakeside Park Mutual Water District are strongly opposed to the thought of willfully putting poison into the lake as a "test" project. Our water company provides millions of gallons of drinking water annually to residents, hospitality providers, commercial businesses, and others. Like many other water purveyors, our water is drawn directly from the lake, and minimally treated due to the lakes purity, then provided as some of the world's best drinking water. While	Lakeside Park Association and Lakeside Park Mutual

Comment Number	Comment	Commenter
	our water treatment plant utilizes filtering and treatment equipment, it was not designed to remove herbicides and related contamination from our drinking water; to keep our drinking water safe our system would require a more extensive and expensive filtration system. Additionally, there is no practical way to adequately treat herbicide infested waterbodies once it reaches a high enough level of contamination. This is public drinking water. No one should reasonably propose the risk of exposing herbicides to sources of public drinking water, but this is exactly what this 'test' would do. Once it exceeds a particular level, herbicides in water are essentially poisonous to people. No one should want to contemplate this risk. Contaminated water impacts the entire community. Do you like to water ski, paddleboard, swim, boat or fish in the lake? Any contact with the water could pose long term health risks in the future. Previously commercially available 'safe' Roundup branded herbicide is now considered by many as a link to cancer cases and there are mounting lawsuits surrounding its use. In addition to the human impact, we need to consider the consequence this can pose to the wildlife that needs the lake and its water for survival. The animals bathe, drink and eat from the lake, we don't think it is a good idea to expose them to herbicides in water. We at Lakeside Park feel we should all be good stewards of the lake and the surrounding area.	Water Company
73.07	We are strongly opposed to the circumvention of law which protects our drinking water. Do not issue a permit which puts it at risk. Would you serve water to your grandchildren which had a label stating, "MIGHT CONTAIN HERBICIDES, DRINK AT YOUR OWN RISK"?	Lakeside Park Association and Lakeside Park Mutual Water Company
75.01	That's our drinking water are you nuts? Don't say it doesn't hurt humans..pull it out by hand, use divers or leave alone!!!	Dano Tahoe
78.01	Please do not add HERBICIDES to the Tahoe Keys. I have been a homeowner in the Lakeside Park Mutual Water District for over 35 years. We draw water from the lake, and this is some of the best drinking water in the world. Please don't destroy it.	Jason Hooz
145.01	The purpose of this email is express my opposition to putting any herbicides/poisons into Lake Tahoe. My family and I live in Lakeside Park and our source of water is Lake Tahoe. It is unconscionable to put weed killers into a source of drinking	Julie Turner

Comment Number	Comment	Commenter
	water. It is my request and hope that you deny permission to anyone who asks to put weed killers in the water. There are other methods of killing the invasive weeds in Tahoe Keys and those other non-hazardous methods should be pursued. Thank you for your consideration of my concerns!	
308.01	I'm against the use of any herbicides in Lake Tahoe. The lake is our primary source of drinking water.	Woody Miller
312.09	7. Endothall has a drinking water Public Health Goal (PHG) of 94 µg/L. The proposal includes significant steps to mitigate the likelihood of endothall reaching a drinking water surface water intake at the PHG level. Should that occur, however, and the public water system detects endothall above the PHG, the system would be obligated to report that information to the State Water Resources Control Division of Drinking Water and its customers.	Dan Askenaize
218.01	I am opposed to any use of herbicides in Lake Tahoe. As this is our drinking water, this is inappropriate and a bad course of action when other interventions are available. Please make my request heard by the board	Dave Simon
251.02	2.Tentative Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for Tahoe Keys Property Owners Association Tahoe Keys Lagoons Aquatic Weeds Control Methods Test (Permit) I am opposed because potential discharge from herbicides may infect the entire lake and our drinking water supply	Judith Michaels Simon
268.01	I am home owner in South Lake Tahoe and very concerned about the use of herbicides to treat non native and invasive weeds in the Keys. There are non toxic ways to solve this issue. The water in the lake is the drinking water for Tahoe, people and animals are in this water. Please consider other methods to resolve this issue as opposed to putting dangerous chemicals in the Lake.	Lisa Vergel de Dios
366.01	Thank you for your time, efforts and willingness to incorporate the best solution that will improve the invasive aquatic weeds in our beautiful South Lake Tahoe Keys. The use of herbicides is NOT a good option to control the invasive weeds in the Tahoe Keys. We must keep in mind of the negative impacts herbicides can have on our beautiful lake. Our lake is home to many individuals, aquatic activities, and aquatic and land animals who need the lake to survive. It is our responsibility, as educated individuals, to keep our lake optimal for all parties. Yes, herbicides can work on minimizing/killing invasive weeds. Herbicides have also been shown to have negative impacts on our water ways, ecosystem, drinking water (adding further filtration to our	Emily Koeritz

Comment Number	Comment	Commenter
	drinking water system to filter the toxic herbicides is not cost effective), etc. Please DO NOT put herbicides in our Lake Tahoe water!	
349.02	I Drink Tahoe Tap, and I do not accept the introduction of <0.9 µg/L of Endothall or Triclopyr into my watershed for the benefit of continued unregulated boat access to Lake Tahoe from the residents, guests, and customers of the Tahoe Keys. My right to clean drinking water is greater than the privilege of boating.	Robert Vidra
349.04	If the Lahontan Water Board allows continued unrestricted access to Lake Tahoe from the Tahoe Keys, they are putting the benefit of 1528 homeowners above the benefit of drinking water from Lake Tahoe. I do not benefit from unregulated recreational boat access from the Tahoe Keys; I do benefit from the filtration exempt ONRW Tier III water quality of Lake Tahoe as my drinking water.	Robert Vidra
360.01	PLEASE DO NOT USE Herbicides in Lake Tahoe. You will poison our drinking water. Both Incline Village and Reno use Tahoe Lake water for drinking. Please find another way to deal with the weeds in the Tahoe Keys.	Yolanda Knaak
272.03	2. The TWSA Board continues to support Action Alternative 1 (AA1 = non-herbicide tests only) identified in the DEIR as the “environmentally superior alternative”. Action Alternative 1 would proceed only with tests of non-herbicide methods of aquatic weed control. Under this alternative, no treatments with herbicides would be conducted, and other elements of the test program (i.e., ultraviolet light, LFA, and Group B methods) would be as described above for the Proposed Project. This alternative was identified as the environmentally superior alternative (Section 5.7). Analysis provided in multiple documents determines that Lake Tahoe is not at risk from this proposed test of mixed methods. The reports include analysis of the estimated possible public exposure if there were a release into the lake (if mitigations failed). One of TWSA’s biggest concerns have been - would there be any threat to the lake’s source water intakes and municipal water supply? This scenario has been very well analyzed, and it appears to be very well mitigated. Documentation provided estimates the possible level of potential active ingredients at drinking water intakes, at <0.9 µg/L. Additionally, with reasoning, the baseline water quality objectives of Non-Detect (ND) for Endothall, Triclopyr, and Rhodamine WT are provided. This is where the TWSA 2014 Lake Tahoe Flow Modeling, Potential Pathogen Transport and Risk Modeling Report1 and the CMT movement of active ingredients out of	Tahoe Water Suppliers Association

Comment Number	Comment	Commenter
	the West Channel into Lake Tahoe, then move throughout our source water. Tahoe's sheer volume of water (between the treatment areas and the intakes), coupled with timing, mitigation and monitoring for the project provides a safety factor for drinking water wells or lake intakes. In the end, the final safety factor is based on dilution. Though the Draft EIR/EIS states that the proposed CMT will not significantly impact filtration exemption, care needs to be taken to protect source water for future use. At this time, the Safe Drinking Water Acts, Surface Water Treatment Rule's (SWTR) exemption criteria, focus on turbidity and bacteriological composition. The same Safe Drinking Water Act is constantly updated to protect potable water from chemicals, including the Unregulated Contaminant Monitoring Rule (UCMR) and Disinfectants and Disinfection Byproducts Rules (DBPR). 1 LAKE TAHOE FLOW MODELING, POTENTIAL PATHOGEN TRANSPORT AND RISK MODELING, June 2014, https://www.yourtahoeplace.com/uploads/pdf-public-works/Schladow_Risk_Assessment_Phase_2_Final_Report_Jun_2014_FINAL.pdf 3 It is logical to apply the same theory to filtration exemption and future criteria for chemical composition.	
272.04	Concurrent with this document review period, the CA State Water Resources Control Board, Division of Drinking Water, is discussing policy change to ensure that the State Water Board develops the analytical methods to detect lower concentration of contaminants in drinking water to support the development of new or lower drinking water standards. The State Water Resources Control Board unanimously approved the resolution, "AUTHORIZING THE EXECUTIVE DIRECTOR OR DESIGNEE TO ENTER INTO AN INTERAGENCY AGREEMENT WITH THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE FOR CONSULTING SERVICES ON ANALYTICAL METHODS AND RESEARCH FOR THE DRINKING WATER PROGRAM" on 10/19/2021. This resolution will ensure that the state water board develops the analytical methods to detect low concentrations of contaminants in drinking water to support the development of new or lower drinking water standards. Fiscal Impact, the interagency agreement will be for an amount not to exceed $6,218,479 over three years.	Tahoe Water Suppliers Association

Summary Comment 13.3

There is concern that the introduction of herbicides into the Tahoe Keys lagoons will have a deleterious impact on consumer confidence of tap water and the DRINK TAHOE TAP brand and damage the tourism and real estate industries.

Summary Response 13.3

The Controlled Measures Test is aimed at evaluating several technologies to reduce AIS growth in the Tahoe Keys lagoons. While herbicides are one of those technologies, it is not the only method under evaluation and is therefore not being applied exclusively against AIS in a wholesale manner. Moreover, the current AIS situation in the Tahoe Keys lagoons and in Lake Tahoe is a visual que to those recreating in and around the lake that there is prolific AIS growth in the Tahoe Keys lagoons and that AIS is spreading into the lake, proper. Therefore, any AIS remedial action, including no action, is likely to have some negative connotations for tourism and with public confidence in drinking water quality.

Comment Table 13.3

Comment Number	Public Comment	Commenter
272.14	12. A requested analysis on the socio-economic impacts to the DRINK TAHOE TAP® brand was determined outside the scope of this DEIS. (Pg. 3.1-15). Tahoe Tap is an award winning, high quality tap water. The DRINK TAHOE TAP® brand and corresponding goodwill has been developed for more than 10 years regionally and receives broad community, regional and national support. The introduction of herbicides may have a strong impact on consumer confidence in the tap water, despite the precautions and mitigations. We were under the assumption that this question is being evaluated as part of anti-degradation analysis. But it appears that the impacts to our trademarked brand was not considered. These articles support our concerns: https://www.wqpmag.com/tapping-filtration https://tahoe.ucdavis.edu/microplastics https://www.raleys.com/our-purpose/sustainability-initiatives/ https://www.winsightgrocerybusiness.com/retailers/how-raleys-fighting-food-waste	Tahoe Water Suppliers Association
36.05	What will be the affect to tourism at Lake Tahoe due to the perception of poison, herbicides, being used in Tahoe? Even just in the near term. As in maybe, we do not want to vacation at Lake Tahoe due to the use of herbicides. Just the perception of the use of herbicides can be damaging to the industries of tourism and real estate. As well as the confidence of communities in their drinking water. Has any work been done to address what might happen to these	Pablo Ortega

Comment Number	Public Comment	Commenter
	important sectors that we all depend on? What will happen when this perception is reality?	
36.02	How will that affect Lake Tahoe water districts ability to ask consumers to pay more for water when the perception is that the water is already poisoned?	Pablo Ortega
36.03	How will the use of herbicides affect property values? Even in the short term, why would I buy a Lake Tahoe home, at a premium, if I cannot drink the water due to the use of herbicides?	Pablo Ortega
36.06	How can one HOA be allowed to jeopardize major industries around Lake Tahoe?	Pablo Ortega

Summary Comment 13.4

There is concern that the Controlled Measures Test will mobilize herbicides from the Tahoe Keys lagoons test site into the groundwater aquifer and threaten the water quality of three nearby drinking water wells.

Summary Response 13.4

The three drinking water wells in question are TKWC #1, TKWC #2, and TKWC #3. These wells are completed in an aquifer that is separated from the Tahoe Keys lagoons by an aquitard or hydrologic barrier that prohibits communication of lagoon water into the aquifer via infiltration. There is no reason to expect that herbicides from the proposed CMT would reach the deeper aquifer. If there was hydraulic communication between the lagoon and aquifer, then well water would exhibit water quality parameters that are similar to the lagoons. That condition is not represented by lagoon and aquifer water quality data.

Comment Table 13.4

Comment Number	Comment	Commenter
337.02	We are aware of some residents of the Lake Tahoe region who receive their drinking water directly from Lake Tahoe and are concerned about the actual and potential health effects of pesticides and weed killers being poured into this source of their drinking water. In addition, Tahoe Keys 3 drinking water wells are in very sandy and porous soil located immediately adjacent to the Tahoe Keys water channels being proposed to treat with weed killer and herbicides.	Mr. and Mrs. Steve Bridges

Summary Comment 13.5

There is concern that secondary effect of herbicide application will be an increase in nitrogen and phosphorous due to AIS dye off and this will promote the conditions required for harmful algal blooms to grow.

Summary Response 13.5

Herbicide application will occur during the time of year when water temperatures are cold, when plants are emerging and there is minimal biomass to decay and release phosphorus into the water column. Cold water temperatures and minimal phosphorus availability in the water column will aid in minimizing harmful algal growth.

See Summary Response 10.1 regarding monitoring for conditions that might promote harmful algal blooms before and after herbicide application.

See Summary Response 4.8 and the Antidegradation Analysis in the NPDES permit on why the antidegradation policy does not prohibit the application of herbicides in an ONRW.

Comment Table 13.5

Comment Number	Comment	Commenter
73.04	Herbicides can be toxic for our drinking water, to our aquatic life and leave behind residuals in our lake bed. Furthermore, aquatic herbicide use is correlated to increased nitrogen and phosphorus levels due to the decay of aquatic weeds leaving behind a food source for harmful algal blooms and cyanotoxins. We are already witnessing the presence of a cyanotoxin called Anatoxin-A at some of our beaches which is a deadly acute neurotoxin. This would be a dangerous cycle. The bottom line is that Lake Tahoe is classified as Tier III Outstanding National Resource Water, prohibiting the use of any herbicides, and this prohibition should be honored, protected, and continued.	Lakeside Park Association and Lakeside Park Mutual Water Company

Summary Comment 13.6

Receiving Water limits should at least meet drinking water standards for Rhodamine WT. As written, the permit violates the drinking water standard for rhodamins WT with the current RWL.

Summary Response 13.6

The chemical specific receiving water limitation for Rhodamine WT is derived from the narrative toxicity objective. The 10 ug/L receiving water limit for Rhodamine WT is based on National Sanitation Foundation (NSF) Standard 60. The NSF Standard 60 is an industry standard and certification or compliance with it is required for nearly all water treatment chemical manufacturers of chemicals utilized in drinking water systems in the

U.S. The standard is protective of the MUN use. Furthermore, the half-life of Rhodamine WT (Rhodamine WT) is temperature dependent and ranges from 15.3 to 21.9 days based on studies under natural sunlight at 30 degrees north latitude. The migration of Rhodamine WT to drinking water intakes in the lake is unlikely due to hydraulic flow conditions in the lake, distance from the test application site to source water intakes, and implementation of mitigations to confine herbicide application to the test area.

The NPDES permit sets receiving water limits for rhodamine dye at 10 micrograms per liter, which is orders of magnitude below the LC50 values reported in the comment.

Comment Table 13.6

Comment Number	Comment	Commenter
263.06	3. Is Rhodamine WT visible at 10 ug/L? Why was this number selected for a receiving water limitation when the drinking water standard is 0.1 ug/L? This number should be met throughout Lake Tahoe, but in particular near any water supply intakes. Allowing 10 ug/L in a water designated as a source of drinking water violates the drinking water standard.	Lauri Kemper

List of References

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