LAKE TAHOE ENVIRONMENTAL IMPROVEMENT PROGRAM

FINAL
Environmental Impact Report /
Environmental Impact Statement

Tahoe Keys Lagoons Aquatic Weed Control Methods Test

Lead Agencies:
Tahoe Regional Planning Agency and Lahontan Regional Water Quality Control Board

TAHOE REGIONAL PLANNING AGENCY

CALIFORNIA WATER BOARDS Lahontan - R6

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AA	Antidegradation Analysis (comment category)
AIP	Aquatic Invasive Plant
AIS	Aquatic Invasive Species
ALT	Alternative
ALTM	Alternative – Mitigation
ANOVA	Analysis of Variance
APAP	Aquatic Pesticide Application Plan
APU	Administrative Procedures Update
AQU	Aquatic (comment category)
AQUM	Aquatic – Mitigation
AWM	Aquatic Weed Management
BMAA	Beta-Methylamino-L-Alanine
BMI	Benthic Macroinvertebrates
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BPTC	Best Practicable Treatment and Control
CARB	California Air Resources Board
CAS	Chemical Abstracts Service
CCR	Code of California Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFEH	Center for Environmental Health
CFR	Code of Federal Regulations
CLP	Curlyleaf Pondweed
CMC	Criterion Maximum Concentrations
CMT	Control Methods Test
CRPR	California Rare Plant Rank
CST	Cost
CWA	Clean Water Act
CYB	Cyanobacteria (comment category)
CYNM	Cyanobacteria - Mitigation

Acronym	Definition
DASH	Diver Assisted Suction Harvesting
DCP	3,6-Dichloro-2-Pyridinol
DDW	(State Water Resources Control Board) Division of Drinking Water
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
DNR	Department of Natural Resources
DPH	Department of Public Health
DPR	Department of Pesticide Regulation
EDCAQMD	El Dorado County Air Quality Management District
EDTA	Ethylenediaminetetraacetic Acid
EEC	Estimated Exposure Concentration
EFSA	European Food Safety Authority
EH	Environmental Health (comment category)
EIP	Environmental Improvement Program
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EP	Environmental Protection (comment category)
ERM	Earth Resources
ESA	Environmental Science Associates
EWM	Eurasian Water Milfoil
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
FSP	Fine Sediment Particle
GEN	General (comment category)
GHG	Greenhouse Gas
HAB	Harmful Algal Blooms
HDPE	High-Density Polyethlylene
HER	Herbicides (comment category)
HERM	Herbicides – Mitigation
HYDM	Hydrology – Mitigation
IEC	Initial Environmental Checklist
IMP	Integrated Management Plan

Acronym	Definition
LFA	Laminar Flow Aeration
LOAEC	Lowest Observed Adverse Effect Level
LPA	Lakeside Park Association
LWB	Regional Water Quality Control Board, Lahontan Region
MCL	Maximum Containment Level
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MSDS	Material Safety Data Sheet
MTBE	Methyl tert-butyl ether
MUN	Municipal and Domestic Supply
NDEP	Nevada Division of Environmental Protection
NEPA	National Environmental Policy Act
NOAEC	No Observed Adverse Effect Concentration
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NSWQMP	Nonpoint Source Water Quality Management Plan
NTU	Nephelometric Turbidity Units
NWP	Nationwide Permit
ONRW	Outstanding National Resource Waters
OPP	Office of Pesticide Programs
OPR	(California) Office of Planning and Research
OTF	Undefined part of 'Renovate OTF' Herbicide Product Name
PAS	Plan Area Statement
PDF	Portable Digital File
PGP	Pesticide General Permit
PP	Public Process (comment category)
QAL	Qualified Applicator License
QAPP	Quality Assurance Project Plan
RCD	Resource Conservation District
REC	Recreation
RECM	Recreation
REG	Regulatory (comment category)

Acronym	Definition
REGM	Regulatory Mitigation
RES	Restoration (comment category)
RHA	Rivers and Harbors Act (Section 10 Rivers and Harbors Act of 1899 and Section 404 Clean Water Act)
SAV	Submerged Aquatic Vegetation
SCH	State Clearinghouse (CEQANet)
SCUBA	Self-Contained Underwater Breathing Apparatus
SDS	Safety Data Sheets
SDWA	Safe Drinking Water Act
SEA	Sierra Ecosystem Associates
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMCL	Secondary Maximum Contaminant Level
SPRP	Spill Prevention and Response Plan
STPUD	South Tahoe Public Utility District
TCP	Trichloro-2-Pyridinol
TEA	Triclopyr Triethlyamine Salt
TERM	Terrestrial - Mitigation (comment category)
TKN	Total Kjeldahl Nitrogen
TKPOA	Tahoe Keys Property Owners Association
TKWTP	Tahoe Keys Water Treatment Plant
TMP	2-Methoxy-3,5,6-Trichloropyridine (aka 2-MP)
TN	Total Nitrogen
TP	Total Phosphorus
TRNM	Transportation - Mitigation)
TRPA	Tahoe Regional Planning Agency
TSAC	Tahoe Science Advisory Council
TWSA	Tahoe Water Suppliers Association
URG	Urgency
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service

Acronym	Definition
USFWS	United States Fish and Wildlife Service
UTM	Utilities Mitigation
UV-C	Ultraviolet Light (Wavelength 200 to 280 Nanometers)
WDNR	Washington Department of Natural Resources
WDOE	Washington Department of Ecology
WDR	Waste Discharge Requirements
WET	Wetlands
WOUS	Waters of the United States
WQ	Water Quality (comment category)
WQM	Water Quality - Mitigation
WQO	Water Quality Objective
WS	Water Supply (comment category)
WTP	Water Treatment Plant

1 INTRODUCTION

This Final Environmental Impact Report / Final Impact Statement (FEIR/FEIS) has been prepared for the Tahoe Keys Property Owners Association's (TKPOA) proposed Tahoe Keys Lagoons Aquatic Weeds Control Methods Test Project (Proposed Project / CMT) in compliance with the California Environmental Quality Act (CEQA) (Pub. Res. Code § 21000 et seq.) and the Tahoe Regional Planning Agency (TRPA) Compact, Code of Ordinances, and Rules of Procedure. This FEIR/FEIS has been prepared by the Lahontan Regional Water Quality Control Board (LWB) as lead agency under CEQA, and by the TRPA as the lead agency under the Compact's Article VII environmental documentation requirements.

1.1 BACKGROUND

A Notice of Preparation (NOP) was issued June 17, 2019, to inform agencies and the public that an EIR/EIS was being prepared for the TKPOA's Proposed Project/CMT and to solicit their views regarding the scope and content of the DEIR/DEIS. A Notice of Availability of the DEIR/EIS was filed with the California Office of Planning and Research State Clearinghouse (OPR-SCH) on July 6, 2020, and comments were received through September 3, 2020. Two public scoping meetings were held with the TRPA Governing Board on July 22, 2020, and the TRPA Advisory Planning Commission on August 12, 2020 to provide information on the environmental analysis and to obtain oral comments on the DEIR/DEIS.

1.2 DOCUMENT ORGANIZATION

Chapter 1—Introduction explains the CEQA, and TRPA processes; lists the lead, trustee, responsible, and cooperating agencies that may have discretionary authority or other jurisdiction related to the project; specifies the underlying project purpose, need, and objectives to which the lead agencies are responding in considering the alternatives; outlines the organization of the document; provides information on public distribution and agency approval processes; and identifies standard terminology and abbreviations used in the FEIR/FEIS

Chapter 2—Master Responses includes 15 responses grouped into fifteen similarly themed comment categories.

Chapter 3—Comments and Responses on the DEIR/DEIS includes a list of commenters and individual comments and responses

Chapter 4—Revisions to the Draft EIR/EIS presents revisions to the July 2020 DEIR/DEIS.

Chapter 5—List of Preparers for the FEIR/FEIS

1.3 PUBLIC REVIEW OF THE DEIR/DEIS

The Lead Agencies initiated their review of TKPOA's Proposed Project to address aquatic weeds control methods in the Tahoe Keys lagoons by making a commitment to a highly transparent and inclusive public involvement process. An extensive stakeholder and public process was conducted to identify potentially feasible approaches and alternatives for the Proposed Project and to receive public comment on the DEIR/DEIS.

1.3.1 Public Scoping

On June 17, 2019, TRPA and the LWB released a Notice of Preparation (NOP) to prepare a joint DEIR/DEIS to public agencies and interested individuals in the community for a period of 45 days for public comment. The NOP was posted on the project website, www.tahoekeysweeds.org, and hard copies were made available at both lead agency offices. Public scoping meetings were held at multiple locations around Lake Tahoe on June 25, June 26, and July 16 to allow the public to submit verbal and written input on the scope of the Proposed Project, project alternatives and environmental document. An email address, tahoekeysweeds@trpa.org, was also established to accept written comments throughout the comment period. A Scoping Report containing comments received on the NOP was posted in November 2019 to the project website at www.tahoekeysweeds.org. An email with project updates and a link to the Scoping Report was sent to all project partners and interested stakeholders on December 2, 2019.

1.3.2 Early Stakeholder and Public Engagement

In order to develop a DEIR/DEIS that was fully informed by the best available information and reflective of the range of values, priorities and concerns, the Lead Agencies, TRPA and the LWB, have committed to transparency with the public and collaboration with partners. TRPA retained an independent third party to conduct an assessment of stakeholder interests, themes, and questions surrounding aquatic weed control and water quality issues potentially associated with the treatment of weeds within the Tahoe Keys. A Stakeholder Assessment Report was prepared summarizing input derived from 29 interviews with 44 stakeholders between August and October 2018 and was used to inform an ongoing Stakeholder Committee and process conducted throughout the development of this DEIR/DEIS. These early engagement efforts included:

- Interviews with more than 40 stakeholders were conducted by third party facilitators to identify initial interests, concerns and questions of a broad range of stakeholders at the initiation of the process in September of 2018.
- Public workshops were conducted at key milestones. The first public workshops were conducted in tandem with the Notice to Proceed/Notice of Preparation (NOP) in July of 2019.
- A Stakeholder Consultation Circle, a broad and widely diverse set of public and private interests comprised of Environmental Improvement Program (EIP) partners, resource agencies, local jurisdictions, non-profit organizations, and interested individuals was established. This group has met approximately twice a year to hear updates and provide feedback on process design and progress.
- A Stakeholder Committee, a focused group of key stakeholders comprised of the two Lead Agencies, TKPOA, the Tahoe Water Suppliers Association, the League to Save Lake Tahoe, and the Tahoe Resource Conservation District was also established for more focused consultation on the identified issues from the stakeholder assessment. This group met 10 times in 2018 and 2019 to comment on DEIR/DEIS goals, design, and approach.
- A project website was developed and was used to provide stakeholders a resource to track the development of the DEIR/DEIS and the results of analyses.

These elements informed the Lead Agencies as they developed the project purpose and scope, as well as developed and reviewed alternatives for the DEIR/DEIS.

1.3.3 Comments Received During the Public Review Period

On July 6, 2020, the LWB posted to agency and Project webpages a Notice of Availability (NOA) of the DEIR/DEIS and public comment period from July 6, 2020, through September 3, 2020, for a 60-day public comment period. The DEIR/DEIS was also sent to and a Notice of Completion and Environmental Document Transmittal was filed with the California Office of Planning and Research State Clearinghouse, SCH No. 2019060152.

The Lead Agencies also distributed the NOA for the DEIR/DEIS to interested agencies, stakeholder organizations, and individuals. This distribution ensured that interested parties had an opportunity to express their views regarding the environmental effects of the project and to ensure that information pertinent to permits and approvals was provided to decision makers for the Lead and Responsible Agencies. The DEIR/DEIS was posted to the project specific website Tahoe Keys Weeds (www.tahoekeysweeds.org) and made available in hard copy at the Lead Agency offices.

The DEIR/DEIS was distributed for a 60-day review period that ended on September 3, 2020. The lead agencies held two virtual public comment meetings on July 22, and August 12, 2020.

After all comments were assembled and reviewed, written responses were prepared to address significant environmental issues that were raised in the timely submitted comments. The responses are included in chapters 2 and 3 of this FEIR/FEIS.

1.4 CEQA and TRPA Code Requirements for Responding to Comments

1.4.1 CEQA

State CEQA Guidelines Section 15088 requires that lead agencies evaluate all comments on environmental issues received on the DEIR/DEIS and prepare a written response. The written response must address the significant environmental issues raised and must be detailed, especially when specific comments or suggestions (e.g., additional mitigation measures) are not accepted. In addition, there must be a good faith and reasoned analysis in the written response. However, lead agencies need only respond to significant environmental issues associated with the project and do not need to provide all the information requested by commenters, as long as a good faith effort at full disclosure is made in the EIR. (14 CCR §15204).

1.4.2 TRPA Code Requirements for Responding to Comments

Chapter 5, Section 5.8A of the TRPA Code of Ordinances states that a lead agency of an EIS must consult with and obtain comments from the public and any federal, state, or local agency that has legal jurisdiction or special expertise with respect to any environmental impact involved. Copies of comments of the federal, state, and local agencies that are authorized to develop and enforce environmental standards must be made available to the public and must accompany the project through the review processes.

1.5 Resource Protection Measures And Mitigation Measures

Resource protection measures (RPMs) are described in the Aquatic Pesticide Application Plan (APAP) as part of the activities proposed in the CMT. Other RPMs were identified during the environmental evaluation as elements of environmental protection that address issues not considered to be potentially significant. Mitigation measures are considered necessary to reduce potentially significant environmental effects to less than significant. FEIR/FEIS Table ES-1 summarizes all the RPMs and mitigation measures identified for each issue evaluated in the EIR/EIS. RPMs and

mitigation measures were discussed in Chapter 3 of the DEIR/DEIS for each issue, with subsections summarizing mitigation required to protect each resource.

1.6 Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program (MMRP) was developed for the CMT to establish specific monitoring, reporting, and recordkeeping requirements to meet TRPA and California laws and/or regulations. CEQA requires the project proponent to conduct monitoring or reporting to document the implementation of required mitigation measures. Monitoring is the ongoing process of project oversight to ensure the mitigation measures are implemented, and reporting is the written review of mitigation activities. The MMRP includes a table summarizing the monitoring and reporting actions and the location of the requirement for each mitigation measure. The draft MMRP is included as Appendix B in this FEIR/FEIS. LWB will consider adopting the MMRP in a public meeting, and if adopted, the final MMRP will be publicly available.

1.7 Final EIR/EIS Certification and Consideration of Project Approval

CEQA Guidelines Section 15090 requires that lead agencies certify that the final EIR has been completed in compliance with CEQA prior to approving a project. The final EIR must be presented to the decision making body of the lead agency. The lead agencies will review and consider the information contained in the final EIR prior to approving the project.

1.7.1 TRPA

Certification of an EIS is defined as a finding that the final EIS is in compliance, procedurally and substantively, with Article VII of the Compact, Chapter 3 of the Code, and the Rules of Procedure. Prior to consideration of the proposed final EIS by the Governing Board, the Advisory Planning Commission shall review the proposed final EIS and make a recommendation to the Board on certification of the proposed final EIS. The Governing Board shall provide an opportunity for comment on the proposed final EIS. The Governing Board may limit such comment to the responses to comments or other new information in the proposed final EIS. Prior to action by the Governing Board on a project or matter for which an EIS was prepared, the Governing Board shall certify a final EIS. The Governing Board shall not approve such a project or matter for which an EIS was prepared prior to certification of a final EIS.

Prior to approving a project for which an EIS was prepared, TRPA must make either of the following findings for each significant adverse effect identified in the EIS:

A. Changes or alterations have been required in or incorporated into such project that avoid or reduce the significant adverse environmental effects to a less than significant level; or

B. Specific considerations, such as economic, social, or technical, make infeasible the mitigation measure or project alternatives discussed in the environmental impact statement on the project.

1.7.2 Lahontan Water Board

CEQA and Guidelines for the Implementation of CEQA (Cal. Code Regs, tit. 14, § 15000 et seq.; hereafter CEQA Guidelines), require that prior to approving a project the lead agency shall certify that the FEIR has been completed in compliance with CEQA, that the decision-making body reviewed and

considered the information contained in the FEIR prior to approving the project, and that the FEIR reflects the lead agency's independent judgement and analysis.

In addition, CEQA and the CEQA Guidelines provide that no public agency shall approve or carry out a project for which an 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 and be accompanied by a brief explanation of the rationale for each finding. The findings are not merely informational, but rather constitute obligations that will become binding if the LWB approves the Proposed Project.

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.

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2 Master Responses to Comments

2.1 Master Response Categories

The responses presented in this chapter address common environmental issues in multiple written and oral comments during the 60-day public review period for the DEIR/DEIS. The use of master responses in this context avoids repetition and therefore streamlines information presented in the FEIR/FEIS. Chapter 3 of this document presents all the comments received and responses to specific comments received on the DEIR/DEIS. Some of the responses in Chapter 3 contain references to the master responses presented here in Chapter 2.

The master responses are organized by environmental topic area where multiple comments were received and are presented in the following sections:

- Master Response 1—Alternatives (ALT-G1)
- Master Response 2—Alternatives (ALT-G2)
- Master Response 3—Antidegradation Analysis (AA-G1)
- Master Response 4—Aquatic Weeds Management (AWM-G1)
- Master Response 5—Aquatic Weeds Management – Mechanical Harvesting (AWM-G2)
- Master Response 6—Cost Analysis (CST-G1)
- Master Response 7—Environmental Health and Protection (EH-G1)
- Master Response 8—General (GEN-G1)
- Master Response 9—Herbicides (HER-G1)
- Master Response 10—Public Participation (PP-G1)
- Master Response 11—Restoration (RES-G1)
- Master Response 12—Protecting Lake Water Quality (WQ-G1)
- Master Response 13—Water Quality Objectives (WQO-G1)
- Master Response 14—Water Supply (WS-G1)
- Master Response 15—Regulatory (REG-G1)

2.1.1 Master Response 1 — Alternatives (ALT-G1)

Summary Comment: An alternative should be approved by the lead agencies rather than the Proposed Project. Other commenters indicated support for approval of the Proposed Project.

Response: The DEIR/DEIS 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-chemical methods without the use of herbicides was identified in the DEIR/DEIS as the environmentally superior alternative. 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/DEIS. The DEIR/DEIS 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 potentially 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.

2.1.2 Master Response 2 — Alternatives (ALT-G2)

Summary Comment: The test sets precedent for future use of herbicides in the long-term management of the weeds. The herbicide should not be applied and only non-chemical means should be implemented.

Response: 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 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, and would be the subject of a separate public and environmental review process (for which public comment would again be taken) before proceeding.

Also, some comments were concerned about the widespread application of herbicides in Lake Tahoe, which would not occur. Single test applications would be limited to the test sites identified in DEIR/DEIS Table 2-3 and Figure 2-4, and all test applications of herbicides would be completed within approximately two weeks in late spring.

If applied, the herbicides selected for testing would quickly degrade and would be contained throughout the test behind turbidity curtains that would impede their migration from test sites toward the lake and that would be in place until monitoring indicates that the herbicides are not detected or below receiving water limits. If herbicides are applied, only CalEPA- and USEPA-approved chemicals will be used. An evaluation of the impacts from herbicides are included in the analysis of the projects impacts in the DEIR/DEIS.

The Proposed Project goal is to test different treatments to determine what will: 1) quickly reduce the aquatic invasive plants [AIP] biomass, 2) bring infestation to a level that can be managed with non-chemical treatments, 3) improve water quality, 4) improve recreational benefits, 5) and reduce re-infestation. Non-chemical methods would be tested with herbicides over the course of the test study. To compare the effectiveness of the different treatment methodologies with minimal variability in testing conditions, it is important that all 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 need to be evaluated concurrently. Non-chemical methods proposed for this test have been implemented either within the Keys, within Lake Tahoe, or both and have not been demonstrated as being able to meet project goals. Results

from projects implementing non-chemical methods were used to evaluate the effectiveness in meeting project goals.

2.1.3 Master Response 3 — Antidegradation Analysis (AA-G1)

Summary Comment: The antidegradation analysis should have been included in the DEIR/DEIS, and because it is missing the DEIR/DEIS is inadequate

Response: Antidegradation Policy Implementation for National Pollutant Discharge Elimination System (NPDES) Permitting Administrative Procedures Update ([APU] 90-004, July 2, 1990) does not indicate that an antidegradation analysis must be included in the DEIR/DEIS for this project. As the lead agency under CEQA, the LWB's interpretation of the document is entitled to deference. The commenter's references to the APU are misplaced. The APU provides guidance regarding NPDES permits. It does not apply to the prohibition exemption process. Given the statutory CEQA exemption for NPDES permitting, the discussion in the APU could only apply to new sources. This project does not involve an NPDES permit for a new source discharge.

The APU's discussion regarding CEQA pertains to NPDES permits for "new sources" as defined in the federal Clean Water Act (CWA), and not for the NPDES discharges that are statutorily exempt. Water code section 13389 indicates that the California regional boards are not required to comply with CEQA prior to the adoption of NPDES permits except when adopting waste discharge requirements for new sources as defined in the CWA. The pesticide application is not a new source as defined under the CWA. In 2006, the Court of Appeal held that Section 13389 fully exempts NPDES permits from CEQA. (See *County of Los Angeles v. California State Water Resources Control Board* (2d Dist. 2006) 143 Cal.App.4th 985, 1005, stating that it is "beyond question" that CEQA does not apply to NPDES-issued permits.) The APU provides guidance on CEQA for new sources NPDES permits which is a NPDES discharge "included in a project subject to an environmental review under CEQA." (APU 90-004, July 2, 1990). It does not provide guidance on antidegradation and CEQA for other discretionary actions such as the proposed pesticide prohibition exemption.

Even if the discussion of CEQA in the APU applied to the pesticide prohibition exemption, the APU does not indicate that the antidegradation analysis must be part of the CEQA document or released at the same time as the DEIR/DEIS. It instead suggests, but does not require, that the antidegradation analysis be part of the environmental review process.

The antidegradation analysis is being presented as part of the environmental review process within the NPDES permit. The public will also have an opportunity to comment on the antidegradation analysis prior to the EIR certification. Therefore, the antidegradation analysis is being released as part of the public review process.

There is also a difference between conducting an environmental analysis under CEQA and an antidegradation analysis under the Antidegradation Policy. While similar information may be used in both, the analysis, conclusions, and purpose of each differ. One area of difference is the use of the term "alternatives." The alternatives presented in the DEIR/DEIS are those capable of avoiding or substantially lessening the significant environmental effects of the project while still meeting project goals and objectives. This is different than the "analysis of alternatives" under Tier 2 of the federal antidegradation policy. The federal antidegradation policy in 40 CFR 131.12(a)(2)(ii) provides that before allowing a lowering of high water quality the LWB must find, after an "analysis of alternatives", that the lowering is necessary to accommodate economic or social development in the area in which the waters are located. An "analysis of alternatives" is not always needed. The "analysis of

alternatives" is only required when a high quality water would not be "maintained and protected." In promulgating the federal antidegradation policy, USEPA made clear that the "analysis required in §131.12(a)(2)(ii) is distinct from the "alternatives analysis" required in other federal regulations, such as the National Environmental Policy Act (NEPA) and Section 404 of the Clean Water Act, (Water Quality Standards Regulatory Revisions, 80 FR at 51032, August 21, 2015).

Furthermore, omitting the antidegradation analysis from the DEIR/DEIS does not make the DEIR/DEIS incomplete. Despite the differing analysis, considerations, and purpose of an antidegradation analysis and a CEQA document, the information used in the antidegradation analysis can be found throughout the DEIR/DEIS.

The DEIR/DEIS describes the Proposed Project and the details of the herbicide application as well as project alternatives. Analysis and findings in Chapters 3, 4, and 5 of the DEIR/DEIS address environmental effects and cumulative impacts to water quality, aquatic life, and human health as result of herbicide discharges and mitigation measures to minimize those impacts. Chapter 2 of the DEIR/DEIS presents a detailed analysis of alternative weed control methods and specifies those carried forward and describes methods not considered further. Chapter 2 also describes feasibility and efficacy of selected resource protection measures (i.e., Best Management Practices). The conclusion and determination of whether any degradation would be consistent with the antidegradation policy does not need to be made at the time of the NOA of the DEIR/EIS in order for the public to have information to meaningfully comment on whether the project will create a significant effect to the environment (e.g., whether the discharge will lead to permanent effects) or to comment on how to mitigate or avoid such an effect, including mitigation or avoidance that the project's proponents have declined to implement. That information is presented throughout the DEIR/DEIS.

One of the purposes of CEQA is to prevent or minimize damage to the environment through the development of project alternatives, mitigation measures, and mitigation monitoring. The action under consideration by the LWB may incorporate mitigation measures discussed in the CEQA public comment process. It was prudent for the LWB to release the DEIR/DEIS and receive public comments on CEQA prior to release of the antidegradation analysis, so that the mitigation measures or alternatives could be developed and possibly incorporated, if applicable, into the action that would be considered by the LWB. It is the action being considered by the LWB and any potential lowering in water quality which is evaluated for consistency with the Antidegradation Policy. Other elements of the antidegradation analysis, including findings that the proposed change in water quality resulting from the discharge is consistent with the maximum benefit to the people of the State and that the NPDES permit includes control measures to ensure Best Practicable Treatment and Control (BPTC) of the discharge, are not necessarily appropriate to address in the DEIR/DEIS since they rely on NPDES permit findings and requirements issued for the final project.

In addition, the release of the antidegradation analysis after the DEIR/DEIS would not trigger recirculation of the DEIR/DEIS because it is not "significant new information" that would require recirculation under California Code of Regulations, title 14, section 15088.5. New information is not significant unless the "EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." (14 Cal. Code Regs. § 15088.5.) None of those circumstances have occurred here. The DEIR/DEIS provides information sufficient for the public and decision makers to understand the impacts of the project, including changes to water quality. The DEIR/DEIS includes information on the pesticide application including parameter-specific magnitude,

extent, and duration of the changes to water quality, and discussion of mitigation to reduce or avoid environmental impacts.

In addition, the release of the antidegradation analysis after the DEIR/DEIS would not require preparing a supplemental or subsequent CEQA document. Supplemental or subsequent CEQA documents are considered by lead agencies or responsible agencies after certification of an EIR and project approval. An EIR has not yet been certified for this project and so an EIR/EIS will be considered by the agencies and not a supplemental or subsequent EIR/EIS.

The NPDES permit and antidegradation analysis and findings have been provided for public comment prior to consideration by the LWB for adoption.

2.1.4 Master Response 4 — Aquatic Weeds Management (AWM-G1)

Summary Comment: Commenters ask why the plan includes only a 75% reduction of Aquatic Invasive Plants (AIPs)

Response: 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. This level of reduction of aquatic weed biovolume is considered a meaningful target for the treatment alternatives because it is expected to sufficiently reduce competition for space, light, and nutrients such that native aquatic habitat may become re-established (DEIR/DEIS section 1.2.2.2).

The plan not only includes a 75% reduction of aquatic weeds criteria that applies in evaluating the success of Group A methods, but also includes testing of Group B control methods to achieve further reduction where Group A methods are successful in attaining the 75% threshold.

A higher threshold for Group A success (e.g., 90%) may be overly difficult to attain for some methods (e.g., UV light arrays may not be able to access weed beds effectively around obstructions) where there is interest in seeing how they might be successful in combination with Group B follow-up spot treatments. In Screening Group A, methods for inclusion in the CMT and project alternatives to test methods suitable for long-term management of aquatic weeds, Group B methods were judged to be not effective or efficient at achieving project Goals and Objectives. The exception is UV light, which will be tested as a Group A method and may also be tested as a Group B method.

As described in DEIR/DEIS Section 2.3.1.3, each of the Group A methods would be implemented on their own timeline. Progress toward the 75% aquatic weed reduction goal for laminar flow aeration (LFA) would be evaluated over three years (or five years in the case of test site #26), and UV light treatments may be extended for a second year to see if the 75% reduction can be achieved. Providing more detail on UV light or LFA expectations to achieve project goals would be speculative at this time and both of these technologies need to be tested to see how they will perform in the lagoons. The CMT and Action Alternatives do not include testing Group B methods at sites that fail to achieve the 75% threshold, as greater than 25% of areas would exceed the expected reasonable capacity for effective spot treatments.

2.1.5 Master Response 5 — Aquatic Weeds Management - Mechanical Harvesting (AWM-G2)

Summary Comment: The history of mechanical harvesting should be included in the DEIR/DEIS. Fragments spread the infestation and so mechanical harvesting should not be continued. Harvesting during the project will skew the results of the test.

Response: Mechanical harvesting is permitted as part of the Integrated Management Plan (IMP) for aquatic weed management under the Waste Discharge Requirements issued to TKPOA under Order R6T-2014-0059 (see Section 1.1.3.2). See https://www.waterboards.ca.gov/lahontan/water_issues/programs/tahoe_keys_weed_control/

Mechanical harvesting will continue to be permitted because it protects the designated beneficial use of recreation, and limits weed fragments that would otherwise be spread by boat propellers motoring through the weed beds. Under the IMP, improvements have been made in the use of harvesting equipment and fragment collection. IMP compliance includes annual reports that document effectiveness of the boat back-up station, fragment collection, and the bubble curtain and sea bins. Altogether, this information indicates these measures accomplish a substantial reduction in fragments that would otherwise exit the lagoons and enter greater Lake Tahoe. This is consistent with the expectation that fragment control efforts are incomplete and some fragments continue to escape into the lake.

More specific information was not found regarding the general timeframes described for harvesting being underway "since the 1970s" or the Keys being largely clear and free of invasive weeds "until the 1980s". It is possible that harvesting was started in smaller localized areas in the late 1970s while most of the lagoons were still clear of aquatic weeds until sometime in the 1980s, but it was not necessary to this project and the DEIR/DEIS to conduct additional research on conditions or activities from around 40 years ago.

If mechanical harvesting is needed at aquatic herbicide test sites in the summer after treatment in the late spring, then it will be clear that the herbicide product was not effective in meeting goals to reduce weed biovolume. A UV light test site would also fail the test if aquatic weeds after treatment grew to the height that would require harvesting to maintain navigation. If harvesting became necessary within LFA test sites during multi-year testing, the biovolume of aquatic weeds removed would be estimated to allow for comparing treatments.

2.1.6 Master Response 6 — Cost Analysis (CST-G1)

Summary Comment: Cost information is another key item missing for overall decision. There are no costs presented for any methods. Cost analysis is necessary to determine approach.

Response: CEQA does not require an analysis of an agency's budget. For the test program cost is not a feasibility barrier. Furthermore, a cost-benefit analysis is not a required component of CEQA and an analysis of the cost of the Proposed Project in relation to alternatives is not necessary to evaluate the environmental impacts of the Proposed Project and alternatives.

During the administrative process, mitigation measures and alternatives may be dismissed as infeasible for a variety of reasons, including economic issues, inconsistency with basic project objectives, or other environmental issues. The comment notes that Alternative 2 should be dismissed for environmental reasons yet asserts that an absence of detailed cost analysis is required. CEQA does not require the approach suggested by the comment. Public Resources Code section 21081 provides:

Pursuant to the policy stated in Sections 21002 and 21002.1, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless … (a) The public agency makes one or more of the following findings with respect to each significant effect: … (3) Specific economic, legal, social, technological, or other considerations… make infeasible the mitigation measures or project alternatives identified in the environmental impact report.

The alternatives evaluated in the DEIR/DEIS, including Alternative 2, were part of the reasonable range of potentially feasible alternatives considered to foster informed decision making and public participation. CEQA Guidelines section 15126.6.(b) provides that "…an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." While not required by Compact high-level cost information for the alternatives will be provided by staff to the TRPA Governing Board.

2.1.7 Master Response 7 — Environmental Health and Protection (EH-G1)

Summary Comment: Dredging would have an extremely serious environmental impact. The sediments that would be moved by dredging contain aluminum, which is toxic to fish and other aquatic organisms.

Response: Information on the potential for aluminum to exceed water quality criteria during activities that disturb bottom sediments is presented in DEIR/DEIS Section 3.2 under Issue EH-5. Core samples and estimates of quantities of alum or bulk aluminum sulfate content were not attempted because elutriate tests were performed on surficial sediment samples as a more direct method to estimate the potential to exceed water quality criteria and toxicity to aquatic life. The results of elutriate tests reinforced the importance of requiring real-time turbidity monitoring during any activities that may disturb the bottom sediments.

DEIR/DEIS Section 3.2.1 cites information from a recent LWB study that sampled sands from eight beaches around Lake Tahoe to compare to samples collected for the West Channel dredging and beach replenishment project, finding similar aluminum concentrations at Tahoe City Beach, El Dorado Beach, and the West Channel area. These results indicated that natural background levels of aluminum may be high in the Lake Tahoe watershed and dredging projects have been previously permitted at several locations around the lake. As presented on DEIR/DEIS page 3.2-5 there is documented historic use of aluminum sulfate in the West and East Lagoons. Further research on historical sources of the existing aluminum in Tahoe Keys was not performed as this information was not needed to establish baseline conditions and evaluate environmental effects of the Proposed Project and alternatives.

The approach to evaluating risks to aquatic life from aluminum is summarized under issue EH-5, including the assumption that mobile aquatic species (e.g., fish) would be scared away by test activities and be able to avoid exposure to elevated aluminum concentrations. The results of the elutriate tests are provided in Table 3.2-1. Samples of sediment and overlying water were collected at five stations in the West Lagoon for elutriate tests of total recoverable aluminum as part of the 2019 baseline hydrology and water quality data collection (ESA 2019, Appendix WQ-1). The 2018 ambient water quality criteria for aluminum are available at https://www.epa.gov/wqc/aquatic-life-criteria-aluminum, including the calculator that was used to generate site-specific criteria. 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. Cold water fish and other aquatic life that are sensitive to aluminum are also sensitive to elevated turbidity. Avoidance is the primary fish behavioral response to locally turbid water (DeVore et al. 1980;[1] Birtwell et al. 1984;[2] Scannell 1988[3]). All life stages of salmonids have been observed to prefer clear water when given the option of clear or turbid water (Bisson and Bilby 1982).[4] By avoiding areas with high turbidity, aquatic life would also be avoiding areas where aluminum may also be elevated. Only short-term exceedances would be expected because real-time turbidity monitoring would be used to shut down sediment disturbing activities and change methods or the rate of work whenever turbidity reached trigger levels, similar to existing Waste Discharge Requirements (WDR) permit conditions.

Although there were issues with aluminum sampling and analysis that are documented in the DEIR/DEIS, there was enough information from the five elutriate samples to support the evaluation stating that disturbance of sediment by dredging or other activities has the potential to cause aluminum in the water to exceed both chronic and acute criteria for the protection of aquatic life. This potential drove the need to prescribe mitigation measures for Action Alternative 2 that included turbidity curtains to isolate suction dredging test areas, and treatment and batch testing to demonstrate compliance with aluminum criteria before any dredged sediment dewatering effluent could be discharged. Further design development would be required to implement Action Alternative 2, including treatment to remove aluminum from dredge spoils dewatering effluent and safe containment of the dredge spoils and effluent during handling and treatment. The evaluation of aluminum risks is presented in Section 3.2.3, concluding that with mitigation, the risks of aluminum toxicity would be less than significant.

As described in the DEIR/DEIS the Proposed Project would cause only short-term increases in turbidity associated with installation and decommissioning of LFA or bottom barriers, resulting in less than significant impacts to sediment disturbance and turbidity.

2.1.8 Master Response 8 — General (GEN-G1)

Summary Comment: Lake Tahoe is a valuable resource that should be protected.

Response: 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. The actions under consideration in this DEIR/DEIS are intended to further those values.

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[1] DeVore, P.W., L.T. Brooke, and W.A. Swenson. The Effects of Red Clay Turbidity and Sedimentation on Aquatic Life in the Nemadji River System. Impacts of Nonpoint Pollution Control on Western Lake Superior. S.C. Andrews, R.G. Christensen, and C.D. Wilson. Washington D.C., U.S. Environmental Protection Agency, EPA Report 905/9- 79-002-B, 1980.

[2] Birtwell, I.K., G.F. Hartman, B. Anderson, D.J. McLeay, and J.G. Malick. 1984. A brief Investigation of Arctic Grayling (*Thymallus arcticus*) and Aquatic Invertebrates in the Minto Creek Drainage, Mayo, Yukon Territory: An Area Subjected to Placer Mining. Canadian Technical Report of Fisheries and Aquatic Sciences 1287.Bisson and Bilby 1982.

[3] Scannell, P.O. 1988. Effects of Elevated Sediment Levels from Placer Mining on Survival and Behavior of Immature Arctic Grayling. Alaska Cooperative Fisheries Unit, University of Alaska, Unit Contribution 27.

[4] Bisson, Peter Andre and Robert E. Bilby. "Avoidance of Suspended Sediment by Juvenile Coho Salmon." *North American Journal of Fisheries Management* 2 (1982): 371-374.

2.1.9 Master Response 9 — Use of Herbicides (HER-G1)

Summary Comment: Herbicides should not be part of the Control Methods Test (CMT).

Response: The Proposed Project includes a one-time test of aquatic herbicides in limited areas of the West Lagoon and Lake Tallac (approximately 10-percent of the 172-acre lagoon system), not a decision to deploy these chemicals for long-term aquatic weeds management. In addition to testing non-chemical Group A methods at 17.8 acres of test sites, the CMT proposes to test herbicides at approximately 17 acres of test sites so that more time is not lost in evaluating the efficacy of all Group A methods that may be able to achieve project objectives for aquatic weed control. LFA would be tested for three years (and five years where Site 26 would continue the LFA test started in 2019), and an option is included for a second year of treatments at UV light test sites. The CMT would provide information on whether Group B spot treatments can be successful in maintaining and improving the aquatic weed reduction accomplished by Group A methods, including a one-time application of herbicides. Based on the outcomes of the CMT, there will be another process to consider and take comment on alternatives for long-term aquatic weeds management, which may or may not include the use of herbicides. Any long-term plan proposing further use of aquatic herbicides would require its own environmental evaluation and permitting.

Only chemical products that have been evaluated, found to not cause harm to people or the environment, and are registered by federal and state agencies, are proposed for testing. Although aquatic herbicides have been demonstrated to be effective at reducing aquatic plant populations in many regions, efficacy of different herbicide products in the unique environment of the Tahoe Keys lagoons has not been demonstrated. Further, the CMT proposes to test the efficacy of Group B methods in maintaining the reductions in target aquatic weeds following one-time herbicide applications, an approach that has not been common in addressing aquatic invasive weeds at other locations. The purpose and need of the present CMT project are to compare reasonable treatment methods, including a comparison of herbicides and non-chemical methods; the value of the test program would be reduced without that comparison.

It is important to be clear that Lake Tahoe will not be affected by the proposed tests. 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, 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 DEIR/DEIS with regard to it being highly unlikely that Lake Tahoe will be adversely affected by the Proposed Project.

Potential long-term adverse effects of proposed herbicide testing on health are evaluated as Issues EH-1, EH-3, and EH-4 in DEIR/DEIS Section 3.2, concluding that risks of long-term adverse effects on health would be less than significant. Only the risks of acute exposure are pertinent since no chronic exposures to herbicides, defined as continuous or repeated contact with a toxic substance over a long period of time (months or years), would occur as part of the CMT. The use of drop hoses or granular formulations to apply herbicides would limit potential acute exposures to workers that have required certifications to handle the chemical products.

Protection of drinking water supplies is specifically evaluated as Issue EH-3, in Section 3.2 of the DEIR/DEIS. Based on these evaluations, including the use of turbidity curtains to impede the migration of herbicides toward the West Channel that connects the West Lagoon to Lake Tahoe,

detectable concentrations of herbicides would not come close to reaching water supply intakes. Monitoring of Rhodamine WT dye and herbicide chemicals would be required to determine the extent and duration of detectable concentrations.

In addition, only a one-time testing of aquatic herbicides is proposed in limited areas as part of the CMT, therefore the risk of aquatic weed mutation and development of a resistance to the herbicides was not considered significant.

An antidegradation analysis will accompany a NPDES permit to be considered by the LWB in compliance with regulations governing the Proposed Project.

2.1.10 Master Response 10 — Public Participation (PP-G1)

Summary Comment: The DEIR/DEIS is insufficient and recirculation is therefore needed.

Response: An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision that intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible (14 CCR 15151). The DEIR/DEIS is a full-scope environmental document that evaluates a broad range of potential environmental impacts at a comparable level of detail for all four alternatives. The analysis identifies and addresses key environmental issues (listed in Chapter 3.1) where significant or potentially significant effects on the environment could occur. Where significant or potentially significant impacts have been identified, the document describes feasible mitigation measures.

No significant new information has been added to the DEIR/DEIS that would require the lead agencies to recirculate the DEIR/DEIS. Changes to the DEIR/DEIS are limited to clarifications. The DEIR/DEIS has not been changed in a way that deprives the public a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement. (14 CCR § 15088.5). Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. (14 CCR § 15088.5). Consistent with Public Resources Code section 21092.1, the lead agencies are not required to recirculate the DEIR/DEIS prior to certification of the FEIR/FEIS.

2.1.11 Master Response 11 — Restoration (RES-G1)

Summary Comment: Tahoe Keys should be restored to a natural wetland and the restoration should be included as an alternative in DEIR/DEIS.

Response: Similar comments were received during the scoping process and were considered by the lead agencies in developing action alternatives. The DEIR/DEIS presents a discussion on the suggestion to fill the Tahoe Keys lagoons from Lake Tahoe in Section 2.7 (page 2-40). 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, would eliminate non-target plant and aquatic animal communities, would not maintain, or improve the beneficial uses of navigation and recreation, and does not need to be tested to understand its efficacy. Therefore, a restoration alternative was not included.

2.1.12 Master Response 12 — Protect Lake Water Quality (WQ-G1)

Summary Comment: It is important to protect Lake Tahoe water quality.

Response: Many comments shared personal stories about time spent at Lake Tahoe and the importance of protecting its water quality and beneficial uses. The TRPA, created by Congress in 1969, has committed in its Regional Plan to linked goals of improving lake clarity while improving the quality of life for all who live and visit the Tahoe Basin. The State Water Resources Board and LWB have the primary responsibility for protecting water quality in the Lahontan region, including Lake Tahoe, through the adoption and implementation of the Regional Water Quality Control Plan (Basin Plan). The TRPA Governing Board and the LWB are responsible for determining whether to certify the FEIR/FEIS. If the CMT or an action alternative is selected, these Boards are also responsible for determining whether to approve permits that include conditions to ensure compliance with water quality protections of the Basin Plan and TRPA Regional Plan.

Comparing the volumes of Lake Tahoe and the Tahoe Keys was simply one more point to emphasize the unlikelihood of detectable concentrations of herbicides migrating to Lake Tahoe proper resulting from proposed testing in the lagoons and was supported by Rhodamine WT dye tracing studies conducted by Dr. Lars Anderson in 2016. A copy of the report can be found on the website hosted by Zephyr Collaboration at https://3ovs9mxsv9l3frcrzkxuuttt-wpengine.netdna-ssl.com/wp-content/uploads/2018/12/Rhodamine-WT-Dye-Study-Report.pdf.

As described in Section 1.2.1 of the DEIR/DEIS, the purpose of the CMT is to test methods to control the spread of non-native target aquatic weeds that have compromised water quality and degraded a wide variety of beneficial uses of the Tahoe Keys lagoons and threaten Lake Tahoe, including both natural conditions and human use. If the current trend continues, the target aquatic weed infestation will continue to impact and threaten nearshore areas around Lake Tahoe. Continuing the status quo efforts to control aquatic weeds in the Tahoe Keys, described as the No Action Alternative in DEIR/DEIS Section 2.6, was evaluated in Section 3.3.4.4 and expected to result in significant ongoing degradation of Lake Tahoe water quality. Lead Agency decisions on whether to allow testing methods for controlling the largest aquatic weed infestation in the lake at the Tahoe Keys will be important in developing a long-term plan for addressing this critical threat to the water quality and enjoyment of Lake Tahoe.

2.1.13 Master Response 13 — Water Quality Objectives (WQO-G1)

Summary Comment: The biostimulatory, toxicity, and chemical constituents water quality objectives will be immediately violated when aquatic herbicides are applied to waters.

Response: The LWB, 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 LWB did not limit the exemption process to non-Outstanding National Resource Waters (ONRW) and indicated that an exemption to the pesticide prohibition could be granted to discharges to ONRWs. As explained further below, the water quality objectives are not violated by the application of aquatic herbicides and the antidegradation policy does not prohibit the application of pesticides.

In 2009, the Sixth Circuit Court of Appeals confirmed USEPA'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 purposes of target pest elimination have been completed. (71 Fed. Reg. at 68,487, National Cotton Council of America v. USEPA. (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 LWB, 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 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 threshold of significance is not exceeded simply by the addition of chemical constituents to Lake Tahoe. As described in the DEIR/DEIS, a review of each herbicide's mode of action was performed to understand the potential for detrimental physiological responses of humans, plants, animals, or aquatic life to the herbicides proposed for testing. The acute toxicity of each herbicide was classified according to USEPA guidance and compared to maximum allowable application rates for each herbicide. The potential for the herbicides to bioconcentrate and bioaccumulate was also considered. The lead agencies have considered the comments proposing that the application of pesticides according to label rates are nevertheless significant and have found that there is no substantial evidence indicating a significant impact.

Pesticides are generally controlled by USEPA and the California Department of Pesticide Regulation through the pesticide registration process. USEPA and DPR evaluate data submitted by registrants and review algaecide and 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. Registrants are required to submit data on the effects of pesticides on target pests (efficacy) as well as non-target effects. Data on non-target effects include plant effects (phytotoxicity), fish and wildlife hazards (ecotoxicity), impacts on endangered species, effects on the environment, environmental fate, degradation byproducts, leachability, and persistence. Requirements that are specific to use in California are included in many pesticide labels that are approved by USEPA. 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. All of the pesticides proposed for use in the NPDES permit are approved for use by the USEPA and DPR.

In addition, the toxicity, biostimulatory objective, and chemical constituents objectives are not expected to be exceededr. Water quality objectives are either narrative or numeric. The narrative toxicity objective and the biostimulatory objective in the Basin Plan are both narrative objectives. Narrative objectives describe a desired water quality goal, but they must be interpreted by the LWB to determine the basis for limiting a discharge or determining that there is an exceedance of the

objective. The chemical constituents objective is a numeric standard for specific chemical constituents. In addition, waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses. As already discussed, receiving waters are defined in the NPDES permit as waters outside of the treatment area at any time and as inside the treatment area after the treatment event.

The narrative toxicity objective in the Lahontan Basin Plan (Basin Plan) 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." (Lahontan Water Quality Control Plan, page 5.1–8). 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. Compliance with the objective is determined by the use of indicator organisms, here the most sensitive indicator organism, and determination of the acceptable level of toxicity that would result from the chemical constituent.

Regarding 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 ingestion. And consistent with the chemical constituent objective, receiving waters cannot contain concentrations of Endothall in excess of the Maximum Contaminant Level (MCL). During the treatment event, any drift of herbicides to receiving waters is expected to be minimal and below acceptable levels as turbidity curtains will reduce drift. Furthermore, as indicated in the DEIR/DEIS and further explained in master comment response WS-G1, the likelihood of ingestion is extremely low and a less than significant impact is expected.

A full analysis of herbicide toxicity effects on fish is provided in DEIR/DEIS section 3.2, Environmental Health (see resource issues EH-4 and EH-2). Summary results from the analysis are presented under Issue Aquatic (AQU)-5 for each of the herbicides being proposed for use in the Tahoe Keys lagoons. As discussed in the DEIR/DEIS, 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). Non-target plant species could be affected by direct contact with herbicides or through exposure to ultraviolet light treatments or implementation of some Group B methods. 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.

Like the narrative toxicity objective, the biostimulatory objective is also a narrative objective. The objective indicates "[w]aters shall 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." Nuisance is defined in Water Code section 13050(m) as "anything which meets all of the following requirements:(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal." It should be noted that Chapter 3 and Chapter 5 of the Lahontan Water Quality Control Plan (Basin Plan) do not include the following objectives for Lake Tahoe: "The concentrations of biostimulatory substances shall not be altered in an amount that could produce an increase in aquatic biomass to the extent that such increases in aquatic biomass are discernible at the 10% significance level." While this language does apply to certain hydrological areas within the Lahontan Region, Chapter 3 and Chapter 5 do not apply such a requirement to Lake Tahoe.

The biostimulatory water quality objective is not expected to be exceeded because of aquatic herbicide application. Herbicides, themselves, do not contain biostimulatory substances. The purpose of herbicides is intended to stop growth of target species, not promote aquatic growths. Any possible increase in nutrients would occur from plant die off rather than the herbicides itself. Therefore, the application of herbicides is not expected to violate the biostimulatory water quality objective. Applying herbicides early in the season would kill target species early in their plant growth. As discussed in the DEIR/DEIS, 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 where dense aquatic weed beds are successfully treated. Furthermore, Section 3.2.1 of the DEIR/DEIS provides an evaluation of the potential for increased harmful algae blooms (HABs) occurrence at test sites following dieback of aquatic weeds and release of nutrients to the water column from decomposing plant tissues. While plant die off could lead to a HAB outbreak, that occurrence is mitigated to a less than significant impact through the application of lanthanum clay and other measures.

In addition, the NPDES permit requires BMPs be implemented to minimize the area and duration of impacts caused by the discharge 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. Receiving waters are defined in the NPDES permit and compliance with the receiving water limitations is determined as indicated in the NPDES permit.

Furthermore, the antidegradation policy does not prohibit discharges into ONRWs. Short term and temporary changes to ONRWs are permitted, including those changes that may result from pesticides.

In summary, the water quality objectives are not expected to be violated by the act of applying pesticide. The proposed discharge will be conducted either according to the label or utilizing BMPs more stringent than label practices. The residual effects of the pesticide are controlled by an NPDES permit with receiving water limitations and other requirements. For these reasons, water quality impacts are less than significant.

2.1.14 Master Response 14 — Water Supply (WS-G1)

Summary Comment: Herbicides could enter the drinking water supply and so there is a potentially significant impact. Turning off wellheads and providing bottled water as a mitigation for potentially impacted TKPOA wellheads is not sustainable.

Response: Potential impacts to drinking water supplies were determined to be less than significant. As described in the DEIR/DEIS Section 3.2.1 (pages 3.2-5 and 3.2-9) there is minimal risk to drinking water supplies as there are no direct potable water intakes within or adjacent to the Tahoe Keys lagoons, public drinking water intakes are far enough away to not be impacted, and groundwater supply well intakes are far below the area of surface water and ground water interaction.

The protection of drinking water supplies was evaluated under Issue EH-3 in DEIR/DEIS Section 3.2, and the fate and environmental persistence of herbicides and degradants is evaluated under Issue EH-2, including their potential to reach drinking water sources at detectable concentrations. The APAP states that there are no direct raw, potable water intakes located within or adjacent to the

Tahoe Keys lagoons (TKPOA 2018). The potential for detectable concentrations at drinking water supply intakes is a function of the potential for transport of chemicals to these locations, the environmental fate and persistence of each herbicide proposed for testing, and the maximum allowable application rates for the proposed herbicides. Wells located within the lagoons draw water from 150 to 430 feet below the ground surface, and the nearest public drinking water intakes operating under filtration exemption in Lake Tahoe are near Lakeside Marina, approximately four miles to the east of the West Channel of the West Lagoon; the nearest private drinking water sources are reported in public scoping comments to be located in the Jameson Beach community north of Pope Marsh approximately one mile west of the West Channel entrance. The Utility Issue in section 3.4.2.1 (pages 3.4-10 and 3.4-14) of DEIR/DEIS discusses the impact of the Proposed Project on filtration exemption for water purveyors and the DEIR/DEIS concludes that the Proposed Project will have "no impact." As discussed in both the Utility Issue and as further explained in the Environmental Health Issue in Section 3.2.1 of the DEIR/DEIS, the possible migration of herbicides to the drinking water supply, including to drinking water intakes, is very unlikely. Comparing the volumes within Lake Tahoe and the Tahoe Keys was simply one more point to emphasize the unlikelihood of detectable concentrations of herbicides migrating to Lake Tahoe proper resulting from proposed testing in the lagoons and was supported by Rhodamine WT dye tracing studies conducted by Dr. Lars Anderson in 2016. A copy of the report can be found on the project website at: https://3ovs9mxsv9l3frcrzkxuuttt-wpengine.netdna-ssl.com/wp-content/uploads/2018/12/Rhodamine-WT-Dye-Study-Report.pdf.

Supply wells in the Tahoe Keys area are screened in an aquifer far below the surface waters of the lagoons. 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.

Nonetheless, in the abundance of caution and to inform the public, the DEIR/DEIS describes possible contingency measures (e.g., alternative water supply or treatment) that could be implemented in the unlikely event that herbicides are detected in drinking water wells or intakes. While the DEIR/DEIS discusses contingency measures, no significant impacts to drinking water supplies would be expected from the project, and therefore those contingency measures are not mitigation measures needed to reduce a potentially significant impact to less than significant.

2.1.15 Master Response 15 — Regulatory (REG-1)

Summary Comment: NEPA Guidelines

Response: The Water Board is a state agency, and the Tahoe Regional Planning Agency is a regional agency, and neither is required to comply with NEPA for this project. Both agencies have their own environmental impact review processes (CEQA and TRPA) that apply to this project.

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3 Comments and Responses on the Draft EIR/EIS

3.1 INTRODUCTION

This chapter contains the comments and comment summaries received from July 6, 2020, to September 3, 2020, for the Tahoe Keys Lagoons Aquatic Weeds Control Methods Test DEIR/DEIS; and responses to those comments. As noted in Chapter 2, the comments and related responses have been organized by comment topic. Table 3-1 below lists each of the commenters, their associated agencies or affiliations, and specific assigned letter/comment identifications. Table 3-1 presents both written comments and oral comments made at the public meetings held July 22, and August 12, 2020, as well as a public webinar hosted on August 11, 2020, Copies of the written and public hearing comments are presented in Appendix A.

3.2 FORMAT OF COMMENTS AND RESPONSES

Comments have been assigned unique comment codes, as shown in Table 3-2 below, and are organized by topic/subject. Comments related to a specific DEIR/DEIS analysis or mitigation measure are included under the relevant topical section. Within each topical section, similar comments are grouped together under subheadings designated by the topic code and a sequential number. For example, the first comment or group of comments pertaining to Alternatives are coded as "ALT," and organized under heading ALT-1. The order of the comments and responses in this section is shown below, along with the prefix assigned to each topic code.

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
Agencies			
A-1	Jennifer Thompson	US Army Corps of Engineers Sacramento District	July 7, 2020
A-2	Jacques Landy Coordinator	U.S. Environmental Protection Agency, Lake Tahoe Basin Division	September 3, 2020
A-3	Jason Burke Stormwater Program Coordinator	City of South Lake Tahoe	September 3, 2020
Organizations			
O-1 letter	Carolyn Willette, Tahoe Area Group Chair	Sierra Club	July 27, 2020
O-2 email	2,648 Individuals (see Appendix A)	Beyond Pesticides	August 27, 2020
	Leslie W. Touart, Ph.D Senior Science and Policy Analyst	Beyond Pesticides	August 27, 2020
O-3 letter	Susan Gibbons, Board Chair Madonna Dunbar, Executive Director	Tahoe Water Suppliers Association (TWSA)	August 27, 2020
O-4 letter	David Blau, Chief Strategy Officer Jesse Patterson, Program Committee Chair	League to Save Lake Tahoe	September 1, 2020
O-5 letter	Joe Sherry, Board President	Tahoe Keys Property Owners Association	September 1, 2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
O-6 letter	Jan Brisco, Executive Director	Tahoe Lakefront Owners' Association	September 2, 2020
O-7 email	Nicole Cartwright, Executive Director	Tahoe Resource Conservation District	September 3, 2020
O-8 letter	434 Sierra Club members See attached list	Sierra Club	7/16/2020–8/3/2020
Individuals			
I-1 email	Howard Steidtmann	Sierra Club	July 16, 2020
I-2 email	Janet Carter	Sierra Club	July 16, 2020
I-3 email	Carol Garlington	Sierra Club	July 17, 2020
I-4 email	Constance Howard	Sierra Club	July 17, 2020
I-5 email	John Comeaux	Sierra Club	July 17, 2020
I-6 email	Laura Smith	Sierra Club	July 17, 2020
I-7 email	Myrna Nizen	Sierra Club	July 17, 2020
I-8 email	Sarah Newsome	Sierra Club	July 17, 2020
I-9 email	Shonna Ingram	Sierra Club	July 17, 2020
I-10 email	Susan Bentley	Sierra Club	July 17, 2020
I-11 email	Taylor Becker	Sierra Club	July 17, 2020
I-12 email	Theodore Desmarais	Sierra Club	July 17, 2020
I-13 letter	Madonna Dunbar	Tahoe Water Suppliers Association	July 21, 2020
I-14 email	Jeanie Murphy	Sierra Club	July 22, 2020
I-15 email	Maryon Tilley	Sierra Club	July 22, 2020
I-16 email	Maya Borhani		July 22, 2020
I-17 email	Lisa Dekker	Sierra Club	July 24, 2020
I-18 email	Kate Doyle		
I-19 email	Brian Beffort	Sierra Club	7/28/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
I-20 email	Natalie Servantes	Sierra Club	7/28/2020
I-21 email	Richard Cooper	Sierra Club	7/28/2020
I-22 email	Janet Wesse	Sierra Club	7/29/2020
I-23 email	Jennifer Aspuria	Sierra Club	7/29/2020
I-24 email	Scott Sady	Sierra Club	7/29/2020
I-25	Greg Felton		7/29/2020
I-26 email	Annise Adams	Sierra Club	7/30/2020
I-27 email	S. May	Sierra Club	7/30/2020
I-28 email	Mitchell Rittiman	Sierra Club	7/31/2020
I-29 email	Donna Walters	Sierra Club	8/2/2020
I-30 email	Harold Singer		8/3/2020
I-31 email	David VonSeggern	Sierra Club	8/5/2020
I-32 email	Dorothy Hudig	Sierra Club	8/5/2020
I-33 email	Lynn Boulton	Sierra Club	8/5/2020
I-34 email	Catherine Schmidt	Sierra Club	8/6/2020
I-35 email	Kathleen Keef	Sierra Club	8/6/2020
I-36 email	Patricia Marinelli	Sierra Club	8/6/2020
I-37 email	Teresa Bell	Sierra Club	8/6/2020
I-38 email	Sarah Berry	Sierra Club	8/7/2020
I-39 email	Reese Sutfin	Sierra Club	8/8/2020
I-40 email	A Hernday	Sierra Club	8/9/2020
I-41 email	Alan Hern	Sierra Club	8/9/2020
I-42 email	Anthony Filippone	Sierra Club	8/9/2020
I-43	Carol Schneider	Sierra Club	8/9/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
email			
I-44 email	David Bezanson	Sierra Club	8/9/2020
I-45 email	David Lamonica	Sierra Club	8/9/2020
I-46 email	David Marancik	Sierra Club	8/9/2020
I-47 email	Doris Grinn	Sierra Club	8/9/2020
I-48 email	Elizabeth Trudell	Sierra Club	8/9/2020
I-49 email	Faith Herschler	Sierra Club	8/9/2020
I-50 email	Fritz Brunner	Sierra Club	8/9/2020
I-51 email	Gayle Dufour	Sierra Club	8/9/2020
I-52 email	Glenn Stewart	Sierra Club	8/9/2020
I-53 email	Hannah MacLaren	Sierra Club	8/9/2020
I-54 email	James McPherson	Sierra Club	8/9/2020
I-55 email	Jessica Fielden	Sierra Club	8/9/2020
I-56 email	Jimandellanj Smith	Sierra Club	8/9/2020
I-57 email	Joan Jacobs	Sierra Club	8/9/2020
I-58 email	Joan Smith	Sierra Club	8/9/2020
I-59 email	Judith Baker	Sierra Club	8/9/2020
I-60 email	Ka Higgins	Sierra Club	8/9/2020
I-61 email	Kathleen Aberegg	Sierra Club	8/9/2020
I-62 email	Keith Forrest	Sierra Club	8/9/2020
I-63 email	Kelly Dewing Wedel	Sierra Club	8/9/2020
I-64 email	Lainey Green	Sierra Club	8/9/2020
I-65 email	Laura Gormley	Sierra Club	8/9/2020
I-66	Lesley Hunt	Sierra Club	8/9/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
email			
I-67 email	Leslie Lihou	Sierra Club	8/9/2020
I-68 email	Leslie Rader	Sierra Club	8/9/2020
I-69 email	Lisa Reutter	Sierra Club	8/9/2020
I-70 email	Margaret Eadington	Sierra Club	8/9/2020
I-71 email	Marijane Poulton	Sierra Club	8/9/2020
I-72 email	Marilyn Jasper	Sierra Club	8/9/2020
I-73 email	Marjorie Lutz	Sierra Club	8/9/2020
I-74 email	Marlene Massetti	Sierra Club	8/9/2020
I-75 email	Mary Alice Pisani	Sierra Club	8/9/2020
I-76 email	Mary Ames	Sierra Club	8/9/2020
I-77 email	Mary Doane	Sierra Club	8/9/2020
I-78 email	Matthew Brockhaus	Sierra Club	8/9/2020
I-79 email	Melanie Truan	Sierra Club	8/9/2020
I-80 email	Michael Cooke	Sierra Club	8/9/2020
I-81 email	Pam Nelson	Sierra Club	8/9/2020
I-82 email	Pat Tilley	Sierra Club	8/9/2020
I-83 email	Patricia Albright	Sierra Club	8/9/2020
I-84 email	Patricia Williams	Sierra Club	8/9/2020
I-85 email	Paul Maysonave	Sierra Club	8/9/2020
I-86 email	Penelope Ward	Sierra Club	8/9/2020
I-87 email	Phoebe Diaz	Sierra Club	8/9/2020
I-88 email	Richard Angell	Sierra Club	8/9/2020
I-89	Richard Hillix-Di Santo	Sierra Club	8/9/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
email			
I-90 email	Rick Gaston	Sierra Club	8/9/2020
I-91 email	Rita A	Sierra Club	8/9/2020
I-92 email	Russ Dahler	Sierra Club	8/9/2020
I-93	Sally Maier	Sierra Club	8/9/2020
I-94 email	Sarah Mahoney	Sierra Club	8/9/2020
I-95 email	Shana Van Meter	Sierra Club	8/9/2020
I-96 email	Sharon Sullivan	Sierra Club	8/9/2020
I-97 email	Shelly Ryan	Sierra Club	8/9/2020
I-98 email	Sunny Powell	Sierra Club	8/9/2020
I-99 email	Sydney Pitcher	Sierra Club	8/9/2020
I-100 email	Tim Odetto	Sierra Club	8/9/2020
I-101 email	Vicki Bookless	Sierra Club	8/9/2020
I-102 email	Victor Kamendrowsky	Sierra Club	8/9/2020
I-103 email	William Dickert	Sierra Club	8/9/2020
I-104 email	Yvonne Fisher	Sierra Club	8/9/2020
I-105 email	Zena Josephs	Sierra Club	8/9/2020
I-106 email	Larry Van Sant		8/9/2020
I-107 email	Barbara Brunell	Sierra Club	8/10/2020
I-108 email	ElsaMarie Butler	Sierra Club	8/10/2020
I-109 email	Greg Rose	Sierra Club	8/10/2020
I-110 email	Gretchen Whisenand	Sierra Club	8/10/2020
I-111 email	Joan Hartmann	Sierra Club	8/10/2020
I-112 email	Karl Collins	Sierra Club	8/10/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
I-113 email	Lea Wiggington	Sierra Club	8/10/2020
I-114 email	Sonia Noemi Cross	Sierra Club	8/10/2020
I-115 email	Stevan Leonard	Sierra Club	8/10/2020
I-116 email	Susan Mach	Sierra Club	8/10/2020
I-117 email	Carolyn Willette		8/11/2020
I-118 email	Andrew Bearer	Sierra Club	8/11/2020
I-119 email	Catherine Atherton	Sierra Club	8/11/2020
I-120 email	John Moore		8/11/2020
I-121 email	Chip Carroon	Sierra Club	8/13/2020
I-122 email	Daniel Kulchin	Sierra Club	8/13/2020
I-123 email	Janice Graef	Sierra Club	8/13/2020
I-124 email	Julie Dunn	Sierra Club	8/13/2020
I-125 email	Beverly Nichols	Sierra Club	8/20/2020
I-126 email	Jim Boone	Sierra Club	8/20/2020
I-127 email	Kristin Waldstad	Sierra Club	8/20/2020
I-128 email	Stephanie Wozniak	Sierra Club	8/20/2020
I-129 email	Fatima Uribe	Sierra Club	8/21/2020
I-130 email	Rory Lamp	Sierra Club	8/20/2020
I-131 email	Ainslee Archibald	Sierra Club	8/21/2020
I-132 email	April Grant	Sierra Club	8/21/2020
I-133 email	Ashlee Forman	Sierra Club	8/21/2020
I-134 email	Barbara Ziegler	Sierra Club	8/21/2020
I-135 email	Betty Sabo	Sierra Club	8/21/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
I-136 email	Debbie Clarkson	Sierra Club	8/21/2020
I-137 email	Denise Martini	Sierra Club	8/21/2020
I-138 email	Doug Vacek	Sierra Club	8/21/2020
I-139 email	Elizabeth Kramer	Sierra Club	8/21/2020
I-140 email	Eric Fernandez	Sierra Club	8/21/2020
I-141 email	G. Schewbel	Sierra Club	8/21/2020
I-142 email	Gary Johnson	Sierra Club	8/21/2020
I-143 email	Iris Jehle Peppard	Sierra Club	8/21/2020
I-144 email	Jeanette Miller	Sierra Club	8/21/2020
I-145 email	Karen Nielsen	Sierra Club	8/21/2020
I-146 email	Mark Wildes	Sierra Club	8/21/2020
I-147 email	Patti Babore	Sierra Club	8/21/2020
I-148 email	Rachel Jo	Sierra Club	8/21/2020
I-149 email	Sarah Behrens	Sierra Club	8/21/2020
I-150 email	William Carrico	Sierra Club	8/21/2020
I-151 email	William Huggins	Sierra Club	8/21/2020
I-152 email	Linda Jones	Sierra Club	8/22/2020
I-153 email	"C.P."	Sierra Club	8/23/2020
I-154 email	Adrian Griffin	Sierra Club	8/23/2020
I-155 email	Anne Kallus	Sierra Club	8/23/2020
I-156 email	Christiane Brown	Sierra Club	8/23/2020
I-157 email	G. Clemson	Sierra Club	8/23/2020
I-158 email	Jane Bramley	Sierra Club	8/23/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
I-159 email	Lisa Foley	Sierra Club	8/23/2020
I-160 email	Lisa Passmore-Quade	Sierra Club	8/23/2020
I-161 email	Lori De Sena	Sierra Club	8/23/2020
I-162 email	Louis Bubala III	Sierra Club	8/23/2020
I-163 email	Lucrecia Belancio	Sierra Club	8/23/2020
I-164 email	Mark Spohr	Sierra Club	8/23/2020
I-165 email	Nancy Cencula	Sierra Club	8/23/2020
I-166 email	Susan Potts	Sierra Club	8/23/2020
I-167 email	Wendy Boszak	Sierra Club	8/23/2020
I-168 email	Chris Omeara-Dietrich		8/27/2020
I-169 email	John Scott		8/27/2020
I-170 email	Theo Giesy	Beyond Pesticides	8/27/2020
I-171 email	Chris Kasper	Sierra Club	8/28/2020
I-172 email	Dawn David	Sierra Club	8/28/2020
I-173 email	Jane Grey	Sierra Club	8/28/2020
I-174 email	Kirt Willard		8/28/2020
I-175 letter	Leslie Touart	Beyond Pesticides	8/28/2020
I-176 email	Nancy Dollard		8/28/2020
I-177 email	John Roukema		8/29/2020
I-178 email	Kevin Hubbard	PLM Family of Companies	8/29/2020
I-179 letter	Leslie Touart	Beyond Pesticides	8/29/2020
I-180 email	Ronald Clayton	Beyond Pesticides	8/30/2020
I-181 email	Kyle Roerink	Sierra Club	9/1/2020

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
I-182 email	JoEllen Rudolph	Beyond Pesticides	9/1/2020
I-183 letter	Lauri Kemper		9/1/2020
I-184 email	LeeAnn Bennett		9/1/2020
I-185 email	David Berry		9/2/2020
I-186 email	Jessica Patton	Sierra Club	9/2/2020
I-187 letter	Lauri Kemper		9/2/2020
I-188 letter	Pablo Ortega		9/2/2020
I-189 email	Robert Lober		9/2/2020
I-190 email	Stephen Alastuey		9/2/2020
I-191 email	B. Lewicki		9/3/2020
I-192 letter	Elise Fett		9/3/2020
I-193 email	Carolyn Willette, Anne Macquarie, and Sean Wirth	Sierra Club	9/3/2020
I-194 email	Sue Berry		9/3/2020
I-195 email	Trish Friedman		9/3/2020
I-196 email	Grazia Caroselli	Sierra Club	9/3/2020
I-197	Walter Mirczak		9/3/2020
I-198 email	Grazia Caroselli	Sierra Club	9/3/2020
I-199 email	Steve Bridges		9/4/2020
I-200 letter	Lisa DeBruyckere	Creative Resource Strategies	9/7/2020
I-201 email	434 Sierra Club members: See Appendix A	Sierra Club	7/16/2020 - 8/3/2020
I-202 email	Kathryn Bricker Kait Krolik	Sierra Club	7/22/2020 8/6/2020
Public Meetings			
TRPA Governing Board Meeting, July 22, 2020			
Laurel Ames		Laurie Kemper	
David Blau		Jesse Patterson	

Table 3-1 List of DEIR/DEIS Commenters

COMMENT CODE	COMMENTER NAME	AFFILIATION	DATE RECEIVED
Madonna Dunbar		Eric Ronning	
Elise Fett		Julie Soules	
Trish Friedman		Tobi Tyler	
Public Webinar August 11, 2020			
David Blau		Andy Kopania	
Madonna Dunbar		Jacques Landy	
Elise Fett		John Moore	
Trish Friedman		Tobi Tyler	
Lauri Kemper		Kirk Wooldridge	
TRPA Advisory Planning Commission Meeting, August 12, 200			
David Blau		Gavin Feiger	
Elise Fett		Trish Friedman	

Table 3-2 Public Comments Inventory

TOPIC	TOPIC CODE	NUMBER OF COMMENTS RECEIVED
Alternatives	ALT	114
Antidegradation Analysis/NPDES	AA	18
Aquatic Effects	AQU	20
Aquatic Weeds Management/Test Program	AWM	58
Cyanobacteria	CYB	23
Environmental Health and Protection	EH	23
General	GEN	51
Herbicides	HE	154
Mitigation and Resource Management Protection Measures		
Mitigation (Alternatives)	ALTM	1
Mitigation (Aquatic Effects))	AQUM	1
Aquatic Weed Management Mitigation	AWMM	9
Mitigation (Cyanobacteria)	CYNM	1
Earth Resources	ERM	8
Herbicides	HERM	2
Hydrology	HYDM	1
Mitigation	MI	11
Recreation	RECM	1

Table 3-2 Public Comments Inventory

TOPIC	TOPIC CODE	NUMBER OF COMMENTS RECEIVED
Regulatory	REGM	1
Terrestrial	TERM	1
Transportation	TRNM	3
Utilities	UTM	1
Water Quality	WQM	6
Public Process	PP	13
Regulatory	REG	35
Restoration	RES	14
Water Quality	WQ	31
Water Supply	WS	10
Other		
Cost	CST	5
Cumulative Effects	CUM	1
Cultural Resources	CR	1
Editorial	ED	6
Greenhouse Gases	GHG	2
Hydrology	HYD	2
Noise	NO	1
Recreation	REC	4
Significant Effects	SIG	8
Terrestrial Effects	TER	2
Transportation	TRN	2
Urgency	URG	2
Wetlands	WET	1

3.3 PUBLIC COMMENTS AND RESPONSES

ALTERNATIVES

Comment ALT-1: I support Alternative AA1 of your Tahoe Keys Weeds Draft Environmental Impact Report.

Response to Comment ALT 1: See Master Response ALT-G1.

Comment ALT-2: Lake Tahoe is not a testing ground for experimenting with chemicals. Action Alternative 1 is clearly the environmentally superior alternative.

Response to Comment ALT-2: See Master Responses ALT-G1 and ALT-G2.

Comment ALT-4: I urge you to invest in the Action Alternative 1 before even looking towards herbicides.

Response to Comment ALT-4: See Master Response ALT-G1.

Comment ALT-5: Alternative 2 (Tahoe Keys Dredge and Replace Substrate) could mobilize aluminum sulfate and is more destructive.

Response to Comment ALT-5: See Master Responses ALT-G1 and EH-G1.

Comment ALT-8: Please may it be known that I am AGAINST the suggestion to use TOXIC CHEMICALS in the Tahoe Keys of South Shore Lake Tahoe to take care of the noxious weed problem.

Response to Comment ALT-8: See Master Responses ALT-G2, HER-G1.

Comment ALT-9: All non-chemical methods must be exhausted before poisoning Lake Tahoe with herbicides. This includes restoring the natural wetlands that should never have been destroyed in the first place.

Response to Comment ALT-9: See Master Responses ALT-G2 and RES-G1.

Comment ALT-10: There's better options than poisoning our lake. Please look at alternatives.

Response to Comment ALT-10: See Master Responses ALT-G1 and ALT-G2.

Comment ALT-11: If this can be stopped, it sets precedent for more preventative actions such as this.

Response to Comment ALT-11: See Master Response ALT-G2.

Comment ALT-13: We are very skeptical that Action Alter 1 which features just UV and Laminar Flow Aeration in Category A can come anywhere close to meeting the project goal of reducing the plant biomass by 75%. We risk losing three years.

Response to Comment ALT-13: See Master Response ALT-G1.

Comment ALT-14: Happy to see the full treatment of the “No Action Alternative”, which makes a compelling case for action and minimal delay.

Response to Comment ALT-14: See Master Response ALT-G1.

Comment ALT-16: Why don't we install a quality aeration system now, such as the Clean Flo system and run it 24/7, 365? This was done the Ski Run Marina where it reduced the nutrient loading/muck by an average of over 20" in one year by increasing oxygen, reducing loading and muck sediment. In addition, the ammonia has been shown to crash and then the weeds die when these systems are used. It will also have a benefit of deepening the channels so that the oxygen can be placed lower and therefore cover a larger area plus the water will get colder.

Response to Comment ALT-16: A 6-acre LFA system was installed at the Tahoe Keys West Lagoon (see Figure 2-4, Site 26) and has operated continuously since May 2019, except for 27 days in May 2020 when a compressor was being replaced. By continuing to operate this system

through the 3 years of methods testing, information from a total of 5 years will be available to evaluate performance of this technology in reducing muck thickness and nutrient content, and in controlling aquatic weeds. Together with 3 years of testing at two additional Tahoe Keys test sites, information will be developed to better understand how LFA could contribute to long-term aquatic weed control throughout the lagoons. See also response to comment ALT-19.

Comment ALT-17: According to the draft EIR, "the size of the area's infestation and its high recreational use by boaters pose a substantial risk of spreading weeds to other areas of the lake and spurring new infestations." Why does the plan NOT include installing a barrier to separate the keys from the lake until the problem is solved? It absolutely should. Anything less is a travesty.

Response to Comment ALT-17: As required by CEQA, the DEIR/DEIS 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 DEIR/DEIS. 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 DEIR/DEIS 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.

Comment ALT-18: "Environmentally superior alternative" seemingly entirely based on not impacting recreational boating for the project proponents (Tahoe Keys homeowners). This is an odd designation and is very misleading to the public and decision makers. Opponents seem to be hitching their cart to this misnomer.

Response to Comment ALT-18: The text in Section 5.7 was incorrect and has been changed. As reflected in the analysis and Tables ES-1 and 5-1, the Proposed Project and Action Alternative 2 do not have potentially significant and unavoidable impacts to recreational boating. The Environmentally Superior Alternative was selected based on the least amount of potential environmental effects, even if in comparing effects, they were considered "less than significant" for the alternatives compared. Therefore, although the Proposed Project and the Action Alternatives all can be mitigated to "less than significance", Action Alternative 1 was considered the Environmentally Superior Alternative because it entails fewer activities that cause effects. Action Alternative 1 does not include the use of herbicides, as does the Proposed Project, and does not entail measures that are as intrusive to the Keys environment as Action Alternative 2 (which entails dredging and substrate replacement). The DEIR/DEIS states:

- ES.3.3 — ACTION ALTERNATIVE 1: TESTING OF NON-HERBICIDE METHODS ONLY
  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).

- 5.7 — ENVIRONMENTALLY SUPERIOR ALTERNATIVE

  CEQA Guidelines 15126.6 address Alternatives to the Proposed Project, stating that "an EIR shall describe a range of reasonable alternatives to the project, or to the location of 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, and evaluate the comparative merits of the alternatives," and further, "The range of potential alternatives to the Proposed Project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects."
- Sections 15126.6(a) and 15126.6e(2)) require that an EIR's analysis of alternatives identify the "environmentally superior" alternative among all of those considered. In addition, if the No-Project Alternative is identified as the environmentally superior alternative, then the EIR must also identify the environmentally superior alternative among the other alternatives.

Comment ALT-19: Not much detail on the non-herbicide alternative's ability to achieve project goals. In particular the 75% reduction of biomass in year 1. I don't think the quasi-scientific LFA project at Ski Run and initial Lakeside Marina UV project in year 1 provides enough support to show this outcome is even possible. Would be a shame to waste 3 years learning very little when the Proposed Project includes both of those non-herbicide methods as well.

Response to Comment ALT-19: 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. See master response AWM-G1. As described in Section 2.3.1.3, each of the Group A methods will be implemented on their own timeline. Progress toward the 75% aquatic weed reduction goal for LFA will be evaluated over three years (or five years in the case of test site #26), and UV light treatments may extend for a second year to see if the 75% reduction can be achieved. Providing more detail on UV light or LFA expectations to achieve project goals would be speculative at this time, and both of these technologies need to be tested to see how they will perform in the lagoons.

Comment ALT-20: They haven't been able to find any discussion of the cost of action Alternative Two, the dredging option, it's quite clear from the description that this alternative will be extremely expensive. It would meet one of the Sierra Club's goals for complete removal of the weeds and their seeds from the lagoons but are the lead agencies expecting the public to pay for expensive dredging, disposal, and replacement so Tahoe Keys property owners can continue boating from their back yards. The result of dredging and replacement will be unnatural lagoons in which the process of fine sediment deposition and weed infestation will resume all over again. This option doesn't solve the problem and the risk of aluminum toxicity to aquatic life are too high. Restoring lagoons to a marsh and completely removing the habitat for weeds would be a cheaper alternative and the public would be more likely to support restoration.

Action Alternative One, the non-chemical treatments alternative is clearly the environmentally superior alternative and is identified as such in the draft document. They remain opposed to the Proposed Project as herbicide use in Lake Tahoe and the Tahoe Keys doesn't solve anything. It would open the door to more use and should never be used in Outstanding National Resource Waters. They support action Alternative One but even this alternative to test only non-chemical methods doesn't protect the Lake from the infestation that continues to threaten it. The staff report on page two cites a critical issue for the need to act quickly on the environmental threat of the spread of aquatic weeds. A physical barrier must be placed at the entrance to the Lake to close off the Tahoe Keys until the environmental threat is completely removed or until the lagoons are restored to marshes. Why aren't physical barriers included in the draft document as one of the

alternatives for protecting the Lake?

Response to Comment ALT-20: See master response CST-G1 regarding costs of the CMT and alternatives. The comment states that the risks of aluminum toxicity to aquatic life are "too high" under Action Alternative 2. Under issue EH-5 in Section 3.2.1, information is cited from a recent LWB study (LRWQCB 2016) that sampled sands from eight beaches around Lake Tahoe to compare to samples collected for the West Channel dredging and beach replenishment project, finding similar aluminum concentrations at Tahoe City Beach, El Dorado Beach, and the West Channel area. These results indicated that natural background levels of aluminum may be high in the Lake Tahoe watershed and dredging projects have been previously permitted at several locations around the lake. The approach to evaluating risks to aquatic life from aluminum is summarized under issue EH-5. See response to comment EH-3 regarding fish avoidance of elevated turbidity and aluminum. The evaluation of aluminum risks is presented in Section 3.2.3, concluding that with mitigation the risks of aluminum toxicity would be less than significant. See also responses to comment ALT-17 regarding a West Channel barrier and ALT-102 regarding aluminum. See also master response EH-G1 regarding aluminum, RES-G1 regarding restoration of the Keys, ALT-G1 regarding alternatives selection, and response ALT-17 regarding placement of a barrier.

Comment ALT-21: happy to see the no action alternative treated as a distinct alternative all the way through the environmental impact chapter. This is rarely done, usually the no action is one or two pages that dismisses if we don't implement the action, we don't achieve the project objectives. The way this has been done; it's been taken through the entire environmental analysis. It makes a case for the urgency to solve the problem and protect lake ecology. The no action alternative ended up with the most significant impacts from any of the alternatives. They were happy to see that the Proposed Project has no significant impacts. The conclusion by the authors as pointed out by Mr. Good, was less than significant in environmental health, water quality, and aquatic biology.

No Action Alternative (NAA) is treated as a full alternative throughout. NAA has the most significant impacts. PP has no significant impacts but will block boating use for 3 months. Consider the benefits to TKPOA in return for solution. Appears that Environmentally Superior Alt is based only on recreation boating.

Response to Comment ALT-21: See Master Response ALT-G1.

Comment ALT-22: The environmentally superior alternative would be the way to go. The idea that the chemicals are safe is something that seems largely unproven.

Response to Comment ALT-22: Only chemical products that have been evaluated, found to not cause harm to people or the environment at allowable doses, and registered by federal and state agencies, are proposed for testing in the lagoons. Also see master responses ALT-G1, ALT-G2, and HER-G1.

Comment ALT-23: I have participated in the online webinar and am in full support of the testing that was outlined. I believe the Chemical Alternatives/Herbicides will be our best option. Our home is at [*redacted*] and is one of the proposed areas where the Herbicide would be used and we are in full support.

Response to Comment ALT-23: Your support for the Proposed Project is noted.

Comment ALT-24: All non-chemical methods must be exhausted before poisoning Lake Tahoe with herbicides.

Response to Comment ALT-24: See Master Response ALT-G2.

Comment ALT-25: Their one concern is the labeling of action Alternative One, the non-chemical alternative as the "Environmental superior alternative." This is required by law, but it doesn't mean you have to go with it, rather it only needs to be identified. Their concern is that the logic was based on one criterion that the Proposed Project has barriers that would block off about half the boaters in the Tahoe Keys for possibly three plus months of the first year of testing. To block off those boaters in the spring of year one for three months in return they get years and years of cleaner channels, seems like a small sacrifice. They asked for all to take another hard look at the designation of the environmental superior alternative. It has nothing to do with environmental health, water quality, or aquatic biology. It's only based on recreation boater obstruction in the Tahoe Keys.

Response to Comment ALT-25: See Master Response ALT-G1.

Comment ALT-26: Tahoe Water Suppliers board continues to support the testing of the non-chemical methods. They are fully in support of Alternative Action A1 for the laminar flow aeration and ultraviolet light testing. This has been their position for a long time. She'll go back to their board to see if their position has changed as a full board.

Continue to support testing non-chemical methods (AA1).

Response to Comment ALT-26: See Master Response ALT-G1.

Comment ALT-27: The NOP is an interesting alternative [the intended reference appears to be AA2] using an even more destructive alternative – deep digging into the muck in order to remove the weeds, but a especially awful problem of disturbing and digging up aluminum sulfate, a highly toxic resident of the muck in the depths of the lagoons.

Response to Comment ALT-27: The approach to evaluating the risks to aquatic life from potential aluminum toxicity is summarized under issue EH-5, including the assumption that mobile aquatic species (e.g., fish) would be scared away by test activities and be able to avoid exposure to elevated aluminum concentrations. The evaluation is presented in Section 3.2.3, concluding that with mitigation the risks of aluminum toxicity would be less than significant. Also, please See Master Response ALT-G1 and Master Response EH-G1.

Comment ALT-28: Our family visits Lake Tahoe several times a year. It is an amazing place to visit. Our kids are spoiled by the clarity of the water anytime we go somewhere else. So much has been done to protect the landscape and waterscape. So, we encourage you to proceed with alternative AA1 with non-herbicidal tests. The herbicides will undoubtedly spread and cause damage to other parts of the lake, its plants and its wildlife. The other option of dredging will also stir up too much sediment harmful to the lake.

Response to Comment ALT-28: See Master Responses ALT-G1, ALT-G2, and HER-G1.

Comment ALT-29: I am writing to agree with the draft EIR/EIS authors that the Action Alternative 1: Testing of Non-Herbicidal Methods Only is the environmentally best choice and ask that the Tahoe Regional Planning Agency/Lahontan Regional Water Quality Control Board (TRPA/LRWQCB) choose this alternative for the proposed weed control test program.

The Action Alternative 1: Testing of Non-Herbicidal Methods Only would have the least potential for any serious and unwanted effects. Action Alternative 1 is the environmentally best choice and will likely demonstrate the effectiveness of non-herbicidal methods in controlling the aquatic weed

problem. TRPA/LWB should select this alternative for the proposed weed control test program.

Response to Comment ALT-29: See Master Response ALT-G1.

Comment ALT-30: We Support (5.7) Action Alternative 1 (AA1 = non-herbicide tests only) which was identified as the "environmentally superior alternative" in the CEQA DEIR. TWSA historical comments have long supported this approach, now clearly defined in the DEIR. Larger scale, well designed, well conducted and properly monitored, non-chemical tests should be tested for (at least) the 3 years proposed.

Response to Comment ALT-30: See Master Response ALT-G1.

Comment ALT-31: We Support Action Alternative 2 (dredge and replace substrate). TWSA early comments supported this non-chemical alternative, coupled with monitoring and mitigation for turbidity. Strategic site selection will be necessary to avoid disturbing alum concentrations in the sediment, along with strong mitigation and monitoring protocols. Dredging and substrate replacement offer a long-term corrective action on the physical conditions of the lagoons, conditions that support plant growth due to years of nutrient and sediment deposition.

Response to Comment ALT-31: See Master Response ALT-G1.

Comment ALT-32: We strongly feel that more information is needed in the DEIR on implementation of Group B methods. Working out the details now, on Group B logistics, is critical to the success of the entire testing program. The flow charts provide a decision-making matrix, but an actual operational / implementation plan has not been provided. The newly released Mitigated Negative Declaration on the Draft Environmental Assessment for Lake-wide Control of Aquatic Invasive Species Project – Lake Tahoe, California and Nevada (August 2020) provides extensive support information on operational logistics of various non-chemical control methods.

Response to Comment ALT-32: The DEIR/DEIS discusses use of Group B methods in Sections 2.2.4 and 2.3.6. Some of the Group B methods (e.g., bottom barriers and diver-assisted suction/hand pulling) are already utilized and regulated as part of the Integrated Management Plan under TKPOA's Waste Discharge Requirements and thus some operational and implementation logistics are known.

Comment ALT-33: Diver Assisted Suction Harvesting (DASH) is reserved as a Group B option. We suggest that DASH be considered on a larger scale (reconsider in Group A category). The DASH method is highly selective and effective. Divers manually removes the entire plant which reduces concerns over-growth or nutrient loading from plant die-off. This method has been successfully used in Emerald Bay in past control work. At Squam Lake, New Hampshire this method is used exclusively to manage 50 acres of milfoil, using an AmeriCorps natural resources training program. The Tahoe Resource Conservation District (RCD) is working successfully with this method currently at several Lake Tahoe locations.

Response to Comment ALT-33: The lead agencies considered diver assisted suction harvesting as a Group A method during the screening of aquatic weed control methods and formation of DEIR/DEIS project alternatives. Group A methods were selected based on their ability to meet the criteria described in Section 2.2.2. In addition to the problem of scale where dense aquatic weed beds are present over most of the Tahoe Keys lagoons area, there would be other challenges with trying to implement DASH as a primary weed control method. Unlike Emerald Bay, Tahoe Keys has a thick accumulation of fine organic sediments at the bottom of the lagoons which causes high turbidity and

poor visibility for divers. The high elevation at Lake Tahoe also limits the productivity rate for diving operations. The poor visibility and elevation are factors that not only would cause DASH work in the Tahoe Keys to proceed more slowly than at other sites, there would be serious safety concerns for divers. Finally, aquatic weed beds are much denser in the Tahoe Keys lagoons than they were in Emerald Bay or Squam Lake, which would greatly increase the amount of labor necessary per acre of infestation. Also see master responses ALT-G1, ALT-G2, and RES-G1.

Comment ALT-34: PhosLock has been added for evaluation for sequestering Phosphorous (K) out of the watercolumn and the sediment. We feel this holds potential but should be investigated further. What is the state or regional board experience with the use of Phoslock in California, especially with use in drinking water sources?

Response to Comment ALT-34: As summarized in table ES-1 under EH-3 and UT-1 there is little potential for the Proposed Project to impact drinking water supplies. Also see Master Response WS-G1. The proposed permit will be the first time the LWB considers the use of lanthanum modified clay (Phoslock) in the context as mitigation for potential increases in HABs. Phoslock has been permitted for use by other regional boards and has not created a human health impact.

Comment ALT-35: We support the added mitigation of Laminar Flow Aeration (LFA) to all treatment sites for increasing oxygen levels, reducing nutrient reduction and offering mitigation against potential harmful algal blooms. LFA holds great potential to improve water quality conditions in the Tahoe Keys, based on initial reports of its use at Ski Run Marina. https://www.clean-flo.com/wp-content/uploads/2020/05/Ski-Run-Marina-First-Year-Report-Jan-2020.pdf

Response to Comment ALT-35: See Master Response ALT-G1.

Comment ALT-36: Section ES 3.2 indicates that the Group B follow up methods would only be used if a Group A test method achieved 75% reduction of non-native species. Recommend that the percent reduction of a Group A test method be noted and recorded, but no matter what percent reduction was achieved the Group B methods should be employed at all test sites. This could provide data for a more complete evaluation of initial and follow up methods.

Response to Comment ALT-36: See Master Response AWM-G1. Group B methods would be tested to see if they are effective in maintaining control of aquatic weeds at test sites where Group A methods have been successful in knocking back most of the weeds. In screening Group A methods for inclusion in the CMT and project alternatives to test methods suitable for long-term management of aquatic weeds, Group B methods were judged to be not effective or efficient at achieving project Goals and Objectives. The exception is UV light, which will be tested as a Group A method and may also be used as a Group B method.

Comment ALT-37: We recognize that Action Alternative 1 was identified as the Environmentally Superior Alternative, and that the No Action Alternative (NAA) is the only alternative that may have potentially significant unavoidable impacts. (Typo on page ES-8 calls it the NOA; it should be the NAA).

Response to Comment ALT-37: See Master Response ALT-G1.

Comment ALT-39: The fact that most of the treatment sites are located further from the West Channel entrance, and the closest treatment site is for LFA, in combination with the double turbidity

curtain barriers, provides greater confidence that water quality in the waters of Lake Tahoe would largely be protected.

Response to Comment ALT-39: That was the intent in locating aquatic herbicide test sites away from the connecting channel and using double turbidity curtains.

Comment ALT-40: Page 2-4, Figure 2-3, recommend that the document provide the rational for using 0.3 acre as the trigger for determining what Group B follow up would be employed.

Response to Comment ALT-40: The primary rationale for using 0.3 acre as a threshold for determining Group B methods is that diver assisted suction/hand pulling would be too time consuming to complete over larger areas in many test sites. See response to comment ALT-33.

Comment ALT-41: Page 2-6 states "In determining whether an alternative was infeasible due to legal factors alternative screening considered the antidegradation policy and prohibition exemption criteria outlined in the LWB Basin Plan, including the potential to violate any water quality objective; the potential to cause long-term degradation of water quality and the ability to limit any short-term degradation of water quality to the shortest possible time and confine it to the smallest area necessary for success." How was feasibility determined when the antidegradation analysis has not been completed?

Response to Comment ALT-41: Section 2.2.2 describes criteria that were used in a screening process to determine which aquatic weed control methods should be included in project alternatives. For some methods it was considered infeasible to implement or mitigate violations of water quality objectives (e.g., rotovation would cause uncontrollable high turbidity over large areas of the lagoons). Evaluating during this initial screening process whether an aquatic weed control method is likely to lead to long or short term degradation does not require completion of an antidegradation analysis. As described in Section 1.4.1.1, an antidegradation analysis would be required before an NPDES permit could be issued for the CMT.

Comment ALT-42: Page 2-7, discusses non-chemical control methods and states "…their success in the Tahoe Keys has been shown to be short-term and recolonization is common." Why does this eliminate non-chemical means? Has TRPA and LHRWQCB reviewed the design of previous studies conducted by the TKPOA? Did these studies include appropriate, timely follow up and if not, was recolonization inevitable? The CMT appropriately includes follow up treatment for the Proposed Project as well as the two alternatives.

Response to Comment ALT-42: The quoted statement is specific to the use of bottom barriers in the Tahoe Keys and does not apply to all non-chemical control methods. In annual reports TKPOA has documented the use of bottom barriers around a limited number of private docks. The reports indicate it was common for sediment deposition on top of the barriers to accumulate rapidly, and new plants took root at these locations. This information was considered in the screening process that determined bottom barriers would not be tested as a Group A method suitable for long-term management of target aquatic weeds. However, the screening process did not eliminate non-chemical methods for testing as part of the CMT, including further testing of bottom barriers as a Group B follow-up method.

Comment ALT-43: Page 2-9 indicates that "mechanical harvesting would continue to be performed at all sites (both test and control sites) during the testing period." There should be no use of mechanical harvesting in test and control sites. The use of mechanical harvesting could confuse results of testing and offers no benefit to protect water quality.

Response to Comment ALT-43: See response to comment AWM-13. See also Master Response AWM-G2.

Comment ALT-44: Page 2-15 states "…all aquatic herbicides may be applied at rates that are below the maximum concentrations allowed by the product registration yet are anticipated to produce desired efficacy based on mesocosm studies…However, maximum allowable rates may be used to ensure the best efficacy results are obtained at a pilot scale." Table 4 in the TKPOA's APAP (Appendix C) indicates that the proposed application rate for endothall would be 2.0 mg/L (below the maximum allowable rate of 5.0 mg/L) and the proposed application rate for triclopyr would be 1.0 mg/L (below the maximum allowable application rate of 2.5 mg/L). These values are not consistent with the application rate (in mg/L) for endothall and triclopyr presented in Tables 2-2 and 2-3 (page 2-16).

Response to Comment ALT-44: The proposed application rates in the APAP are the rates proposed and authorized in the Lahontan NPDES Permit, which reflect the amounts for Endothall and Tryclopyr of 2.0 mg/L and 1.0 mg/L, respectively, as target concentrations. These are roughly half the maximum label rates. The maximum label rates were considered in the DEIR/DEIS as what could have been proposed by the project proponent and are rates that are consistent with authorized use of those herbicides within California. Also see response to comment HE-90.

Comment ALT-46: Page 2-23, Figure 2-6 presents an example of the layout for a combination herbicide and UV light treatment site. If herbicides are approved for use, samples for the herbicide should be collected within the UV light treatment area to understand potential drift of herbicides into the UV light area.

Response to Comment ALT-46: For test sites that will test a combination of Ultraviolet Light (Wavelength 200 to 280 Nanometers) (UV-C) light and herbicides, UV-C light will be used in the main portion of the channel, and herbicide application in the shallower perimeter. The permit requires herbicide monitoring in the treatment area and receiving waters, receiving water samples will assess the potential drift of herbicides. The monitoring for herbicides is required per the NPDES permit during the treatment. However, this may not overlap with the UV-C light implementation (i.e., within 21 days of treatment). UV-C light may be applied after completion of the herbicide treatment.

Comment ALT-47: Page 2-25, states "contingency plans described in the APAP include shutting off the wells and distributing water to all users until residues are no longer detected in samples." As indicated in earlier comment, if shut off the water supply, people can't flush toilets, and they can't stay in their homes. A more appropriate response would be to notify residents not to drink the water until further notice.

Response to Comment ALT-47: This recommendation was incorporated in finalizing the DEIR/DEIS. Potential impacts to drinking water supplies were determined to be less than significant. As described in the DEIR/DEIS Section 3.2.1 (pages 3.2-5 and 3.2-9) there is limited risk to drinking water supplies as there are no direct potable water intakes within or adjacent to the Tahoe Keys lagoons, public drinking water intakes are far enough away to not be impacted, and groundwater supply well intakes are far below the area of surface water and ground water interaction. See also master response WS-G1.

Comment ALT-49: Page 2-25, footnote #5, it should be clarified that there is no drinking water standard for triclopyr. Information that is included in the DEIR/DEIS is taken from the label for triclopyr. There is, however, a drinking water Maximum Contaminant Level (MCL) for endothall. To establish the MCL, the regulatory agency (in this case the US Environmental Protection Agency) must

follow the Administrative Procedures Act including opportunities for public review and comment. If the MCL for endothall were exceeded that is a violation of a drinking water standard and would require public notification including posting the notice in the local newspaper. The violation would have to be included in the annual Consumer Confidence Report distributed to all customers of the water system. That would not be required under the Safe Drinking Water Act if exceeded the drinking water label value for triclopyr.

Response to Comment ALT-49: Thank you for your comment, the DEIR/DEIS will be corrected to read as the following:

> A 25-fold dilution of the maximum application rate for endothall would suffice to be below drinking water standards. There are no drinking water restrictions on Triclopyr or florpyrauxifen-benzyl. The six-fold dilution for Triclopyr would to be below dietary recommendation exposure limits at 400 parts per billion.

Comment ALT-50: Page 2-38, Section 2.6.1 states "Mechanical harvesting has been underway in Tahoe Keys since the 1970s yet has not been effective at reducing aquatic weed populations and has accelerated the weed infestation because the machines produce weed fragments that can propagate new plants." If mechanical harvesting has been used for 50 years and has caused exceedances of water quality objectives and failure to protect beneficial uses why has mechanical harvesting been allowed to continue…while dismissing other non-herbicide technologies based on limited information? Furthermore, section 1.1.3.1 includes a quote from the TKPOA that "until the 1980s" the Keys were largely clear and free of invasive weeds. That seems to contradict the statement on page 2-38 that mechanical harvesting has been underway since the 1970s.

Response to Comment ALT-50: Mechanical harvesting is permitted as part of the Integrated Management Plan for aquatic weed management under the Waste Discharge Requirements issued to TKPOA under Order R6T-2014-0059 (see Section 1.1.3.2). Mechanical harvesting continues to be permitted because it protects the designated beneficial use of recreation and limits the uncontrolled weed fragments that would otherwise be spread by boat propellers motoring through the weed beds. Under the IMP improvements have been made in the use of harvesting equipment and fragment collection. More specific information was not found regarding the general timeframes described for harvesting being underway "since the 1970s" or the Keys being largely clear and free of invasive weeds "until the 1980s". It is possible that harvesting was started in smaller localized areas in the late 1970s while most of the lagoons were still clear of aquatic weeds until sometime in the 1980s. Further investigation on the conditions of activities from 40 years ago is not necessary as it is unrelated to the existing environmental conditions or the project's potential impacts. See also Master Response AWM-G2.

Comment ALT-51: Page E-5 discusses problems with background herbicide monitoring and presents the reason as to why no testing was conducted. "…it would [be] best to wait and collect the baseline samples shortly before herbicide applications, if approved." Given the environment and uses in the Tahoe Keys, recommend that testing and reporting be required for a wide array of synthetic organics (not just herbicides) in Tahoe Keys, whether or not the use of herbicides is approved.

Response to Comment ALT-51: It is outside the scope of this aquatic weed control method testing project to conduct the suggested sampling and analysis for a wide array of synthetic organic chemicals in the Tahoe Keys.

Comment ALT-52: There are several innovative water management plans which are chemical-free that have proven to be effective. Ultraviolet C lights, inversion oxygenation, and bioaugmentation, aeration systems, and large mats with controlled air pockets have all tested to be effective in

managing invasive weeds. All non-chemicals methods should be tested and then retested in a coalition with each other before we begin to experiment with chemicals. Herbicide treatment is a temporary fix with the potential to encourage weed and cyanobacterial growth that degrades the quality of our natural recourse. It is critical to explore all non-chemical treatments to ensure the safety and longevity of our natural resources and use herbicides as a last resort. We all want what is best for Lake Tahoe. We hope that you will take into consideration our thoughts and concerns before implementing a management plan involving chemical treatment.

Response to Comment ALT-52: See Master Responses ALT-G1 and HER-G1.

Comment ALT-53: We agree with the draft EIR/EIS authors that the Action Alternative 1: Testing of Non-Herbicidal Methods Only is the environmentally superior choice and recommend that the TRPA/LRWQCB select this alternative for the proposed weed control test program. The herbicides chosen for consideration in this program pose risks of potential health and environmental harm not fully assessed in the EIR/EIS and the non-herbicidal methods alone may prove sufficiently effective for the weed control sought.

> We believe that the Action Alternative 1: Testing of Non-Herbicidal Methods Only, would have the least potential for any serious and unwanted effects. Action Alternative 1 is the environmentally superior choice and will likely demonstrate the effectiveness of non-herbicidal methods in controlling the aquatic weed problem. We recommend that the TRPA/LRWQCB select this alternative for the proposed weed control test program.
>
> By proceeding with the Action Alternative 1: Testing of Non-Herbicidal Methods Only, the TRPA/LRWQCB would avoid valid environmental and health concerns arising from use of herbicidal chemicals. The non-herbicidal methods, including ultraviolet light, laminar flow aeration [LFA], bottom barriers, and diver-assisted techniques can be quickly implemented to reduce and curb the spread of current weed infestation. Such action is considered the environmentally superior choice for the weed control test program and it maintains the beneficial uses of the Tahoe Keys. If these methods prove effective, then a large-scale implementation of these methods can begin and avoid any future consideration or use of herbicidal products and their inherent risks.

Response to Comment ALT-53: See Master Responses ALT-G1, ALT-G2 and HER-G1.

Comment ALT-54: I do not endorse a plan to use herbicides and am voting for Action Alternative#1, which will use only nontoxic methods to address the invasive weeds. This is very important to me, as a nature-enthusiast and avid Lake Tahoe swimmer and paddleboarder. I understand that the homeowners have permanently altered and destroyed the Upper Truckee Marsh when they built out the Tahoe Keys, and it is my hope that the residential area may one day be returned to a semblance of its original state of marshland and healthy waterways with nontoxic long-term methods.

Response to Comment ALT-54: See Master Responses ALT-G1 and RES-G1.

Comment ALT-55: The finding that the Action Alternative 1 is the environmentally preferred alternative appears to be an emotional judgement call. Section 5.7 states, "As shown in Table 5-1, both the Proposed Project and Action Alternative 2 would have potentially significant unavoidable impacts on recreational boating." This is the only unavoidable impact stated and is inconsistent with Table 5-1 which states, "No significant unavoidable effects; no mitigation required" to recreational boating."

> The Proposed Project which tests all the methods in which there are no significant unavoidable effects after mitigation will provide most useful data in a timely manner should

be the environmentally preferred alternative. This approach will best support an informed decision for future actions. Eliminating the testing one potentially viable alternative for controlling the invasive weeds is not an environmentally sound approach to this collaborative effort.

Response to Comment ALT-55: The text in Section 5.7 was incorrect and has been changed. As reflected in the analysis and Tables ES-1 and 5-1, the Proposed Project and Action Alternative 2 do not have potentially significant and unavoidable impacts to recreational boating. Also see response ALT-18 and Master Response ALT-G1.

Comment ALT-56: I am writing to agree with the draft EIR/EIS authors that the Action Alternative 1: Testing of Non-Herbicidal Methods Only is the environmentally best choice and ask that the Tahoe Regional Planning Agency/Lahontan Regional Water Quality Control Board (TRPA/LRWQCB) choose this alternative for the proposed weed control test program.

Response to Comment ALT-56: See Master Response ALT-G1.

Comment ALT-57: The proposed action is not effective or responsible mitigation. There are better alternatives. As a resident of Nevada, I share in the benefits of the water. But I also feel a duty to share in the responsible management.

Response to Comment ALT-57: See Master Response ALT-G1.

Comment ALT-58: Please choose "Action Alternative 1" (AA1) at this would test only NON-herbicidal methods of aquatic weed control.

Response to Comment ALT-58: See Master Responses ALT-G1, ALT-G2, and HER-G1.

Comment ALT-59: I support option one. All non-chemical options should be tested first. And if the non-chemical methods are shown to not be capable of controlling the weeds, then a new discussion should be started to plan for mitigations on the limited use of chemicals . Every effort should be made to never use chemicals in lake Tahoe!!!

Response to Comment ALT-59: See Master Responses ALT-G1, ALT-G2, and HER-G1.

Comment ALT-60: I am in support of ES.3.3 Action Alternative 1: Testing of Non-Herbicide Methods Only.

Response to Comment ALT-60: See Master Responses ALT-G1, ALT-G2, and HER-G1.

Comment ALT-61: Testing of Non-Herbicidal Methods Only is the environmentally best choice and ask that the Tahoe Regional Planning Agency/Lahontan Regional Water Quality Control Board (TRPA/LRWQCB) choose this alternative for the proposed weed control test program.

The Action Alternative 1: Testing of Non-Herbicidal Methods Only would have the least potential for any serious and unwanted effects.

Action Alternative 1 is the environmentally best choice and will likely demonstrate the effectiveness of non-herbicidal methods in controlling the aquatic weed problem. TRPA/LRWQCB should select this alternative for the proposed weed control test program.

Response to Comment ALT-61: See Master Responses ALT-G1, ALT-G2, and HER-G1.

Comment ALT-62: The range of alternatives described in the document include baseline conditions (No Action Alternative) as well as direct and indirect methods for AIP removal and control. In addition, adequate pre-treatment, treatment, and post-treatment monitoring and evaluation components are included to assess the efficacy of actions and monitor any detrimental effects to the environment. Importantly, additional resource protection measures have been identified to minimize effects to native fish and wildlife and their habitats. A thorough analysis has been conducted of the potential effects of the alternatives, including a review of special status and protected plant and animal species within the scope of the project – and any initial as well as cumulative effects.

Response to Comment ALT-62: See Master Response ALT-G1.

Comment ALT-63: The Proposed Project and AA2 propose control methods that would release toxic substances into lake water and should be strongly opposed.

Response to Comment ALT-63: See Master Response ALT-G1.

Comment ALT-64: The earth is rebelling against human contamination all over and in many ways. We must choose the least harmful methods of achieving our goals. In this case that would be Action Alternative 1.

Response to Comment ALT-64: See Master Response ALT-G1.

Comment ALT-65: I encourage you to adopt Action Alternative 1 (AA1) to test non-herbicidal methods of aquatic weed control. The DEIS/DEIR identifies this as the environmentally superior alternative.

The lack of realistic alternatives is contrary to the intent of both National Environmental Policy Act and the California Environmental Policy Act.

Dredging the organic material and sediments, proposed by AA2, is not a realistic option because aluminum sulfate was dumped in the lagoons to settle the suspended sediments when the lagoons were built. Aluminum sulfate is extremely toxic to fish and other organisms in Lake Tahoe. Therefore, both the Proposed Project and AA2 propose control methods that would release toxic substances into lake water and should be opposed.

Response to Comment ALT-65: See Master Responses ALT-G1 and Master Response EH-G1.

Comment ALT-66: We fully support the Proposed Project's focus on testing a variety of methods on a smaller scale to inform a future treatment plan within the Tahoe Keys lagoons. Over the past 10 years, Tahoe RCD has used a similar testing strategy to evaluate mechanical aquatic invasive plant control methods. While our tests have been conducted on infestations that were isolated and much smaller than the infestation in the Proposed Project area, this prudent approach has resulted in critically improved insights on timing and effort required to successfully treat aquatic invasive plant populations beyond the short-term.

Response to Comment ALT-66: See Master Response ALT-G1.

Comment ALT-67: We support the three-year testing program. 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 damaging the Lake. The "Proposed Project" would test the effectiveness and prove the safety of existing and new tools before full-scale implementation. 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. We strongly recommend the Proposed Project become the Preferred Alternative. 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. We support the science-based approach to testing all potential control methods as a cohesive three-year program, conditional on the findings of the Antidegradation Analysis forthcoming from Lahontan (as required by the U.S. Environmental Protection Agency due to Lake Tahoe's designation as a Tier III Outstanding Natural Resource Water).

Response to Comment ALT-67: See Master Response ALT-G1.

Comment ALT-68: "Preferred Alternative" designation: The DEIR/S does not identify a "Preferred Alternative" but rather presents the "Proposed Project" as submitted by the applicant (TKPOA). While there is no legal requirement to designate a "Preferred Alternative" under CEQA or the TRPA environmental review process, it is advisable so that the public understands the intended action. The League supports the Proposed Project, as the DEIR/S demonstrates that all potentially significant impacts can be mitigated to "less than significant" in all relevant categories (Environmental Health, Water Quality, and Aquatic Biology). However, should the Antidegradation Analysis forthcoming from Lahontan conclude otherwise, the League would undoubtedly reassess its position. We believe the impacts on recreation that would occur due to the Proposed Project are short-term and minor in comparison to the current scale of the aquatic weed infestation in the Tahoe Keys lagoons and active spread of a now 100-acre infestation in Lake Tahoe proper. We also believe that the DEIR/S 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.

Response to Comment ALT-68: See Master Response ALT-G1.

Comment ALT-69: One of the three performance measures set for the Project is to reduce the biomass of aquatic weeds by 75%.3 The three-year testing program aims to find out if this is initially possible using a set of "Group A" methods, which would then be maintained for two years by using non-chemical Group A methods along with the "Group B" methods. Based on experience in the Tahoe Keys lagoons and other parts of Lake Tahoe, the full combination of methods in the Proposed Project is likely required to achieve that goal. We do not believe that unproven, non-chemical methods alone – Alternative 1 – would be effective. Furthermore, we do not want to allow the problem to get worse while testing some, but not all, safe, available options we believe may work.

The proposed ultraviolet light (UV) treatment appears to be an effective method of plant control at one test treatment site at Lakeside Marina and beach. Less than 0.5 acres of unobstructed water area was treated multiple times over multiple years and now seems to be largely free of aquatic weeds for two seasons running. The DEIR/S notes that UV will not kill the plant roots or turions. Therefore, the long-term effectiveness and ongoing costs must be evaluated to see if this method can be used at a large scale to reduce biomass by 75% and maintain it at that level in perpetuity. It is also evident that UV light can only be used in the center of channels and lagoons, thereby requiring another method to be used in tandem to address the edges where there are numerous obstructions from the 900 docks and associated pilings.

Similarly, early results of a Laminar Flow Aeration (LFA) project appear to indicate an effective method of plant control at one 0.5-acre test treatment site at Ski Run Marina. While a 5.9-acre LFA system (funded by the League) has been operating in the Tahoe Keys lagoons since April 2019, the results have not been the same, and it is too early to determine if this test can yield results similar to those seen at Ski Run Marina. Ultimately, this method may be effective as a spot treatment, but it has not been proven successful on a large scale to significantly reduce biomass within one year or

over multiple years.

While targeted hand-pulling and spot suction dredging with SCUBA divers are likely to be an effective part of the solution for small, persistent and hard-to-access infestations, large-scale dredging and disposal of spoils and wastewater – Action Alternative 2 – has many adverse impacts. In addition to the high cost, as DEIR/S points out, there are many adverse environmental impacts resulting from this method, including potentially increasing the spread of curlyleaf pondweed. Dredging can also result in significant increases in turbidity and has the potential to release nutrients and contaminants contained in the substrate.

Targeted herbicides have not been tried in Tahoe. In other lakes, the specific herbicides proposed are a demonstrated method of targeted plant control at treatment sites for at least one season. The Proposed Project would test this method only at the beginning of the first year to initially achieve the biomass reduction performance measure. The remaining two years of the Project would continue to test the suite of other non-chemical methods described in the DEIR/S to maintain the 75% reduction in biomass. Chemicals are not proposed to be used beyond the first year and the League does not support the use of chemicals for more than one year during the three-year testing program.

This 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. Compared to other lake environments, 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.

Response to Comment ALT-69: See Master Response ALT-G1.

Comment ALT-70: A scientific test: This Project is a 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 but also meet the performance measure of protecting the Lake's water quality in the Tahoe Keys lagoons, including antidegradation requirements required by the U.S. EPA (owing to Lake Tahoe's designation as a Tier III Outstanding Natural Resource Water).

The detailed DEIR/S is the most extensive environmental review, in conjunction with a very inclusive stakeholder and public input process, we have ever seen for a testing project. It includes many layers of protections and precautions, including several mitigation measures and robust monitoring plans. The rationale for the methods in Group A and in Group B is stated very clearly, as well as why additional tools were not included in either category. The testing of every idea, concept and method imaginable – in spite of known flaws or costs – is neither pragmatic nor efficient when it is evident that near-term action is urgently needed. The description of the combinations and timing of control methods that would be tested is comprehensive and well supported. There is a very detailed description of the three potential herbicides that could be used and their respective half-lives and degradants, as well as their target plant species, and application and containment methods. The No Action Alternative is given a full analysis of environmental impacts, which is rare in an EIS or EIR. The potential adverse impacts of this Alternative are the greatest of any proposed, underscoring the urgency to solve the problem quickly. That said, there is nothing urgent enough to put the long-term health of Lake Tahoe at risk.

Response to Comment ALT-70: See Master Response ALT-G1.

Comment ALT-71: Because of the thorough, robust and defensible DEIR/S, which includes all of the

feasible control methods to meet the Project's performance measures, we are supportive of the Proposed Project and recommend it as the Preferred Project to move forward in the Final EIR/S, with the expectation that the Antidegradation Analysis demonstrates no long-term water quality deterioration. 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.

Response to Comment ALT-71: See Master Response ALT-G1.

Comment ALT-72: I appreciate the effort that went into the design and evaluation of the Test Project. I support carrying out a statistically robust evaluation of control methods prior to implementing a new and improved long term plan to manage aquatic weeds at the Tahoe Keys with the hope of reducing the impact of aquatic invasive species on the rest of Lake Tahoe waters. Current regulations and the need to protect Lake Tahoe from pollution, degradation or the introduction of new and toxic substances require that a thorough test of nonchemical methods is required prior to testing herbicides as a control method. I recognize that the Proposed Project evaluated in the Draft EIR/EIS is based upon an application by the project proponent, Tahoe Keys Property Owners' Association (TKPOA), and that TKPOA wishes to use herbicides, and has proposed including them in this test.

Response to Comment ALT-72: See Master Response ALT-G1.

Comment ALT-73: Since the Lahontan Water Board Basin Plan prohibition exemption process requires a finding regarding adequate testing and use of non-chemical methods prior to authorizing herbicide use, I support development of a revised or new project alternative that begins with the implementation and evaluation of non-chemical methods, first, before considering whether the use of herbicides is needed. In this alternative, UV treatment and laminar flow would be tested (Group A non-chemical methods) for one to two years, followed by the Group B methods in Year 2 or 3. Evaluation of efficacy would follow. Lahontan Water Board would make determination if the Basin Plan criteria has been met to authorize herbicide use and if exemption granted, a permit for herbicide use would be issued for herbicide test to occur. Herbicides as evaluated in the draft EIR/EIS would be administered as outlined. An ' If, then' alternative or a phased alternative should be described in a revised draft EIR/EIS.

Response to Comment ALT-73: See Master Responses ALT-G1 and ALT-G2.

Comment ALT-74: The current project proposal alternative includes testing with UV light alone, laminar flow aeration alone, herbicides alone, and herbicides with UV and laminar flow aeration. It seems beneficial to all test plots in Alternative 1 and the project proposal to include laminar flow aeration to mitigate adverse effects from nutrient releases that may cause increased algal blooms.

Response to Comment ALT-74: See Master Response ALT-G1.

Comment ALT-75: Alternative 2 evaluating dredging and clean fill inadequately describes environmental impacts of increasing turbidity and mobilizing aluminum from the sediments. Mitigation measures for disposal of dewatering fluids are inadequate. It is unlikely STPUD has the interest or capacity in collecting, treating and disposing of the quantity of fluid identified in the draft EIR/EIS.

Response to Comment ALT-75: See Master Responses ALT-G1 and EH-G1.

Comment ALT-76: TRPA Article VII(a)(3) states that the EIS shall "study, develop and describe appropriate alternatives to recommended courses of action for any project which involves

unresolved conflicts concerning alternative uses of available resources." I urge you to include additional alternatives and additional options within each alternative, along with a detailed anti-degradation analysis.

Response to Comment ALT-76: See Master Responses ALT-G1 and AA-G1.

Comment ALT-77: I am supporting Action Alternative A. I am also endorsing the above-mentioned studies before any further action is taken on the part of the Keys to put toxic chemicals into Lake Tahoe.

Response to Comment ALT-77: See Master Response ALT-G1.

Comment ALT-78: TKPOA supports TRPA's selection of the Proposed Project and the DEIR/EIS prepared for the Project.

Response to Comment ALT-78: See Master Response ALT-G1.

Comment ALT-79: The Proposed Project is the Environmentally Superior Alternative.
The DEIR/EIS was prepared to evaluate options for managing the aquatic invasive weed infestation in Lake Tahoe and the Tahoe Keys. The document is intended to comply with the California Environmental Quality Act (CEQA) for purposes of TKPOA's application for a National Pollutant Discharge Elimination System (NPDES) permit from the Lahontan Regional Board, and to comply with the Tahoe Regional Planning Compact and TRPA's Code of Ordinances and Rules of Procedure with regard to TKPOA's application to the Lahontan Regional Board and TRPA to test the effectiveness of herbicides in the Tahoe Keys lagoons. The DEIR/EIS evaluates the environmental impacts of the Proposed Project and several potential alternatives.

The Proposed Project includes a test of herbicide control methods alongside non-herbicide control methods, most notably laminar flow aeration (LFA), ultraviolet light (UVL), and follow-up non-herbicide spot treatments. Action Alternative 1 only includes the non-herbicide control methods, relying most heavily on LFA and UVL. (DEIR/EIS, p. ES-6.)

Response to Comment ALT-79: See Master Response ALT-G1.

Comment ALT-80: The DEIR/EIS concludes that Action Alternative 1 is the ESA under CEQA. In fact, as explained more fully below, the Proposed Project is the ESA.

Since the DEIR/EIS Found that the Proposed Project Will Have No Significant and Unavoidable Impacts, There is No Basis in CEQA to Assert That an Alternative Will Have Less Impacts. When an agency determines that a Proposed Project triggers CEQA review, it typically prepares an Initial Study (IS) to evaluate the potential environmental impacts of the project. The IS guides the agency's determination of what type of CEQA document to prepare: if the IS finds that there are no potentially significant impacts, or that all potentially significant impacts can be mitigated to a less-than-significant level, the agency may prepare a Negative Declaration (ND) or Mitigated Negative Declaration (MND). (CEQA Guidelines, § 15063(c).) If the agency determines that the project may have significant and unavoidable impacts, or that there was insufficient information available at the time the IS was prepared to determine the level of significance, then the agency must prepare an Environmental Impact Report (EIR), including an analysis of project alternatives. (CEQA Guidelines, §§ 15063(b), 15126.6; Pub. Resources Code, § 21002.1(a).) The purpose of the alternatives analysis is to identify alternatives that could reduce or avoid the project's significant and unavoidable impacts. (CEQA Guidelines, § 15126.6(a).) If the detailed CEQA analysis finds that there are no significant and unavoidable impacts, the alternatives analysis serves no purpose. Likewise, it

is inappropriate to identify an alternative to the Proposed Project as the Environmentally Superior Alternative (ESA) because the Proposed Project itself does not have any significant and unavoidable impacts. CEQA has no provisions for making a comparison between degrees of insignificance.

Response to Comment ALT-80: It is not true that in the absence of significant unavoidable impacts, alternatives cannot be distinguished in terms of their impacts. Although the Proposed Project and both Action Alternatives mitigate all identified environmental issues to less than significant, both the Proposed Project and Action Alternative 2 entail activities (application of herbicides and the dredging, dewatering and disposal of sediment) that would not occur under Action Alternative 1. Although mitigated, these additional activities entail some measure of potential risk and impact. For all these reasons, Action Alternative 1 is the environmentally superior alternative. See comment response ALT-18 regarding designation of the Environmentally Superior Alternative.

The comment suggests that an EIR/EIS should not be prepared for the project, and a mitigated negative declaration would have been the appropriate level of review. Nothing prohibits a Lead Agency from going above and beyond the technically required level of review. Further, as explained in detail in the DEIR/DEIS, the extensive public outreach and stakeholder participation favored a robust, detailed analysis that would allow the public and the decision-makers to consider a range of alternatives. The commenter's preference for an abbreviated environmental review is noted, but the Lead Agencies, after completion of a CEQA Initial Study and TRPA Initial Environmental Checklist in 2018 (See section 1.6.2 of DEIR/DEIS), determined that a full EIR/EIS was preferable in this case.

Comment ALT-81: Action Alternative 1 Will be Ineffective and Will Not Meet the Project Objectives, Allowing the Infestation to Grow and Causing Significant Environmental Degradation of the Lake. The main objective of the Proposed Project (DEIR/EIS, Section 1.2.2.1.) is to 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:

- Reduce target aquatic weed infestations as much and as soon as feasible.
- Bring target aquatic weed infestations to a level that can be managed over the long term with localized non-herbicidal treatment methods.
- Improve the water quality of the Tahoe Keys lagoons and reestablish native aquatic habitat.
- Improve navigation and enhance recreational benefits and aesthetic values.

The Proposed Project, the only feasible alternative evaluated in the DEIR/EIS that would actually accomplish the objective to test a range of methods that can meet the bulleted goals, is environmentally superior, as it is the only alternative that would provide fully comparable information on which treatment method, or combination of treatment methods, would be feasible and effective. Accordingly, the Proposed Project is the only option that will allow TKPOA and the agencies to move beyond the test project to determine what combinations of methods would quickly and effectively manage the aquatic weed infestation, preventing proliferation of the infestation and long-term harm to the Lake Tahoe environment.

The DEIR/EIS does not present substantial evidence that UVL and/or LFA (alone or together) could meet project objectives related to reducing the target aquatic weed infestation as quickly as possible. There is also no evidence that UVL would improve water quality. Furthermore, since objective to reestablish aquatic native habitat. The DEIR/EIS does not adequately consider the degree to which Action Alternative 1 may or may not be consistent with the project objectives. Because there is no substantial evidence available at this time that Action Alternative 1 could adequately and quickly control invasive weeds in the CMT areas, it is comparable to the No Action Alternative, which would have long-term adverse environmental impacts in terms of allowing invasive weeds to proliferate in Lake Tahoe. (DEIR/EIS, pp. 5-18, 5-24–5-29 [discussing the significant and unavoidable impacts of continued weed infestation on water quality and aquatic species].) In contrast, the Proposed Project includes control methods that are proven to quickly and effectively

control invasive aquatic weeds. The proposed herbicides were developed for safe and effective use against the type of aquatic weeds targeted in the Proposed Project and have been approved by the United States Environmental Protection Agency, specifically to be able to perform in a manner that would achieve the stated goals of this project. They are commercially available and used throughout the country for exactly that purpose. Thus, there is little risk that these control methods would be ineffective, and they are more likely to achieve project objectives than Action Alternative 1.

Response to Comment ALT-81: Section 2.2.2 describes criteria that were used in a screening process to determine which aquatic weed control methods should be included as project alternatives for further evaluation in the DEIR/DEIS. Also see master responses ALT-G1 and ALT-G2. The DEIR/DEIS acknowledges that there is insufficient information to know whether UV light or LFA will be effective at meeting project goals and objectives for aquatic weed control in the lagoons. They are included for further testing in the CMT or Action Alternative 1. See master response AWM-G1.

Comment ALT-82: It is critical that the Lahontan Regional Board and TRPA take into consideration the environmental impacts that will occur if the invasive weed infestation is allowed to further proliferate. The long-term, documented history on aquatic invasive plants at Lake Tahoe and the Tahoe Keys lagoons going as far back as 1995 has demonstrated that purely physical control methods (i.e., harvesting, bottom barriers, diver-assisted hand removal, and localized dredging) have not adequately reduced the populations of aquatic weeds in the Tahoe Keys lagoons, nor prevented populations from expanding within Lake Tahoe. This 25-year history of attempted physical management, without incorporating available, proven effective aquatic herbicides has clearly failed to achieve project goals, and has not mitigated continuing threats to Lake Tahoe's ecosystem health. Because Action Alternative 1 proposes methods that have not been demonstrated to be effective, it will likely allow the infestation to grow, potentially continuing to compromise the ecological integrity of the lake. The Proposed Project is the only alternative that utilizes effective means of sustainably managing the invasive weeds, and therefore is the ESA.

Response to Comment ALT-82: The No Action Alternative (see Chapter 3 of the DEIR/DEIS) evaluates the potential impacts of only utilizing existing weed management strategies. The Proposed Project is the project that will be presented as a test to determine what will be effective and will provide the best data to compare with the other technologies being coordinated during the same season. Also see response ALT-18 and master response ALT-G1 regarding the selection of the Environmentally Superior Alternative.

Comment ALT-83: The Determination That Action Alternative 1 is Environmentally Superior Under CEQA is Based on Incorrect Conclusions and a TRPA-Only Impact.

In addition, even setting aside concerns about effectiveness, Action Alternative 1 was deemed the ESA based on a determination that the Project would potentially impact recreational boaters. (DEIR/EIS, p. 5-19, third paragraph.) However, this finding in Section 5.7 is inconsistent with the analysis in the DEIR/EIS and the comparison presented in Table 5-1. In addition, it conflates two legal concepts and does not, in fact, support the finding that Action Alternative 1 is the ESA.

The Proposed Project and Action Alternative 1 are very similar with respect to environmental impacts. The main difference, and the reason that Action Alternative 1 is deemed environmentally superior in Section 5.7, is the statement that the Proposed Project would "have potentially significant unavoidable impacts on recreational boating." (See DEIR/EIS, p. 5-19, third paragraph.) Action Alternative 1 is stated to "reduce the potentially significant effects of the Proposed Project by avoiding the application of herbicides." (DEIR/EIS, p. 5-19, first paragraph.) Both of these statements in Section 5.7 of the DEIR/EIS, discussing the ESA, are incorrect. The detailed analyses presented in Sections 3 and 4 of the DEIR/EIS, and the comparison of alternatives presented in Table 5-1, do not identify any significant and unavoidable impacts from the Proposed Project related

to recreational boating. Likewise, there are no "potentially significant effects" related to the application of herbicides identified anywhere in the analysis. Thus, the stated basis in Section 5.7 for Action Alternative 1 being the ESA is flawed and based on incorrect information. As stated in Item II.A, above, in the absence of any identified significant and unavoidable impacts for the Proposed Project, there is no precedent in CEQA to select an alternative to the Proposed Project as the ESA. Furthermore, the requirement that the agency select an ESA is a CEQA requirement and must be based on impact areas designated for analysis under CEQA. Recreational boating is not an impact area for CEQA. Although "recreational impacts" are considered under CEQA, the analysis focuses on whether existing facilities, such as parks, are adequate to serve a project, or whether new facilities should be constructed. The Tahoe Keys Marina launching facilities are a private commercial business and not a public recreational facility, so consideration of potential impacts to that facility is not consistent with the CEQA recreational criteria (See CEQA Guidelines, Appendix G.) And, as noted above, the statement on page 5-19 of the DEIR/EIS that the Proposed Project would have any potential impact on recreational boating is inconsistent with the conclusion of the environmental analysis. While TRPA is obligated to consider impacts to recreational boating for its own purposes (TRPA Code of Ordinances, § 80.3.2.G.), impacts of the Proposed Project on recreational boating are not CEQA impacts and should not be considered when selecting the ESA, as required by CEQA. Accordingly, the impacts of the two alternatives are equivalent under CEQA, and the Proposed Project is the ESA.

Response to Comment ALT-83: See Master Response ALT-18 and ALT-G1 regarding the selection of the Environmentally Superior Alternative and corrections to Section 5.7. In a joint document, the requirements of both sets of regulations are considered. TRPA has made its own determination and selection of an environmentally superior alternative, which is not bound to follow CEQA guidelines.

Comment ALT-84: I am in very much in support of ES.3.3 Action Alternative 1: Testing of Non-Herbicide Methods Only. If there is a sense of urgency then I would also support Action Alternative 2: Dredge and Replace Substrate in areas where there are no structural pilings or obstructions to be implemented in conjunction with Action Alternative 1.

Response to Comment ALT-84: See Master Response ALT-G1.

Comment ALT-85:

- **ES.3.3** — As stated, this was identified as an environmentally superior alternative and therefore for Lake Tahoe there should be no question that at minimum this should be chosen and implemented ASAP!
- **ES 3.4 —** If faster results want to be achieved then this would be a good addition in areas where there is not a concern of undermining piles and a sustainable long-term solution.
- **ES .3.5 — T**his appears to be a waste of time and money to even discuss since the lack of action on the Keys part has already proven this is not an alternative!
- What should have been done in place of this alternative is to take care of eliminating the sources of nutrients such as directly from the lawns and storm drains along with using aeration to deteriorate the existing muck from the bottom from years of simply harvesting. Again, TRPA should require that all of the lawn areas are replaced with artificial turf. Although not allowed in the rest of the basin, and this part of the basin it is a great win-win solution.
- **ES .4.1** — Yes, the primary issues are: Reducing the source of nutrients in order to reduce infestation of non-native and native weeds plus algae blooms that cause cyanotoxins and the associated BMAA. The need for improved water quality and protecting biology and ecology and all inhabitants of Lake Tahoe and especially the Keys. What is not mentioned here is the issue that the management at the Keys in the past and currently is not reliable and that

there needs to be oversight and assistance. For example, the extremely small aeration system, only 6 acres which is less than 3% of the Keys' area, was supposed to be run 24 hours a day 365 days a year and it was turned off during the winter. Then they did not determine that the compressor wasn't working until after April. Another example is the bubble curtain that again was not tested and working for the first part of the summer.

- **ES .4.2** — Yes alternative one is the environmentally superior alternative and therefore should be the choice for a tier 3 lake that is as precious as Lake Tahoe.
- **ES.4.4** — It is incorrect to say that the Proposed Project that includes testing of aquatic herbicide's would have no significant irreversible or retrievable effects. The potential for cyanobacteria blooms that cause the neurotoxin BMAA to go airborne and the start of causing weeds to mutate and become stronger must be addressed.
  *See attached articles - Adverse Effects #11 and Letter Links 1-5

Response to Comment ALT-85: See Master Responses ALT-G1 and HER-G1. Also see comment responses AWM-23 and AWM-56 regarding nonpoint source pollution management and landscaping; and CYB-1 for the potential increases in harmful algal blooms. Regarding aquatic weed mutation, the commenter's concern that use of pesticides will increase the hybridization of watermilfoil which may then become resistant or more tolerant to pesticides is not supported by the articles cited by the author. The supporting research article states the following: "The apparent association between taxonomic composition and treatment history suggests that intensively managed lakes may be more likely to become dominated by hybrid watermilfoil and less likely to harbor native northern watermilfoil, and this hypothesis warrants further investigation through laboratory and field study." The article only made a suggestion that further research is necessary to support the hypothesis. The one-time herbicide application in the CMT is not an intensively repeated management activity.

Comment ALT-86: The Sierra Club opposes the Proposed Project to use aquatic herbicides in the Tahoe Keys. The Proposed Project proposes to test the use of herbicides in the lagoons to control the invasive weeds Eurasian milfoil, Curlyleaf Pondweed, and coontail, and also test non-chemical control methods. The Draft EIR/EIS includes two other action alternatives: Action Alternative 1, which proposes testing only non-chemical control methods, and Action Alternative 2, which proposes removing the sediment from the bottom of the lagoons by dredging and replacing it with coarser sand and gravel. The Draft EIR/EIS identified Action Alternative 1 as the environmentally superior alternative. The Sierra Club is proposing an enhanced Action Alternative 1, described later in these comments, and strongly encourages you to adopt the enhanced alternative. The required No Action Alternative, which would continue the present ineffective management, was not supported by public scoping comments. The Proposed Project will only test managing the weeds so that boating from the Keys can continue, not eliminate the grave threat to Lake Tahoe. The Proposed Project will lead to perpetual herbicide use for weed management everywhere around Lake Tahoe. Long-term holistic approaches must be implemented that would eliminate the source of the problem; the unnatural habitat created in the 1960s by destroying the Upper Truckee River freshwater marsh. Amazingly enough, the Draft EIR/EIS asserts that only the No Action Alternative has "significant and unavoidable" impacts, even though the mere presence of herbicides in Lake Tahoe and connected waters is a significant and unavoidable impact of the Proposed Project. This assertion is just one of the many examples of the bias toward the Proposed Project exhibited by the authors of the Draft EIR/EIS.

Response to Comment ALT-86: See Master Responses ALT-G1, ALT-G2, and RES-G1. See WQO-G1 on why the mere presence of herbicides in Lake Tahoe is not a significant impact.

Comment ALT-87: The Draft EIR/EIS fails to include the required range of reasonable alternatives. The agencies have failed to proceed in the manner required by CEQA and NEPA because the Draft EIR/EIS fails to include the required range of reasonable alternatives. The Draft EIR/EIS admits the elimination

of a number of alternatives from consideration in section 2.7. Alternatives eliminated include isolating Tahoe Keys Lagoons from Lake Tahoe, filling Tahoe Keys Lagoons, and Tahoe Keys Wetland Restoration. (Draft EIR/EIS, section 2.7, at pp. 2-39-2-41.) The Draft EIR/EIS admits the Tahoe Keys Lagoons have "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, … (p. ES-2.) "The accumulation of nutrient-rich organic sediment in the lagoons as a result of aquatic weed growth and die-off contributes to elevated water column nutrients and can contribute to the occurrence of harmful algal blooms (HAB), which can lead to the presence of cyanotoxins." (Id.) It is necessary to include alternatives that would actually address the health and safety risks and other environmental impacts such as isolating or filling Tahoe Keys Lagoons in a revised and recirculated Draft EIR/EIS. That would allow public reviewers and decision-makers to actually focus on the trade-offs involved among a reasonable range of alternatives to effectively address, "The abundant growth of non-native and undesired native aquatic plants ("aquatic weeds") in the Tahoe Keys Lagoons…" (Draft EIR/EIS p. ES-2.)

Response to Comment ALT-87: The Lead Agencies have provided a reasonable range of alternatives for consideration. Lead Agencies are not required to consider every conceivable alternative. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The scope of the DEIR/DEIS includes analysis of aquatic weed control methods that require testing at a pilot scale. The alternatives suggested by the commenter include actions that do not meet the goals and objectives of the project. Environmental health and safety issues are addressed in Section 3.2, including protection measures that support findings that potential risks from the CMT or Action Alternatives are less than significant. Also see master responses RES-G1, REG-GI, and PP-G1.

The DEIR/DEIS was prepared under CEQA and TRPA regulations, not under NEPA. It is not subject to NEPA requirements.

Comment ALT-88: "Evaluation of project alternatives and mitigation measures is 'the core of an EIR.'" Banning Ranch Conservancy v. City of Newport Beach (2017) 2 Cal.5th 918, 937. An EIR must "describe 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 and evaluate the comparative merits of the alternatives." CEQA Guidelines § 15126.6(a). "[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly." § 15126.6(b).

When the project would have significant adverse environmental effects, agencies are "required to consider project alternatives that might eliminate or reduce the project's significant adverse environmental effects." Friends of the Eel River v. Sonoma County Water Agency (2003) 108 Cal.App.4th 859, 873.

Pursuant to NEPA Regulation § 1502.14, "This [alternatives] section is the heart of the environmental impact statement." The alternatives section should "sharply" define the issues and provide a clear basis for choice among options by the decision-maker and the public. Id. reasonable alternatives must be included even if they are not within the jurisdiction of the lead agency. NEPA § 1502.14(c.) Moreover, "an alternative may be reasonable, and therefore required by NEPA to be discussed in the EIS, even though it requires legislative action to put it into effect." Kilroy v. Ruckelshaus (9th Cir. 1984) 738 F.2d 1448, 1454.

So, what the Draft EIR/EIS presently consists of is a Proposed Project that is unlawful because herbicides are prohibited by the Basin Plan; the Antidegradation Analysis is missing; and the criteria for seeking and obtaining an exemption to the prohibition have not been met or even disclosed in

the Draft. On the other hand, alternatives that are lawful have been eliminated from consideration in the Draft EIR/EIS. This works to skew the process in favor of the herbicide alternative and against reasonable, lawful alternatives under existing policies and plans. Revision and recirculation of the Draft EIR/EIS are required by the absence of the required range of reasonable alternatives. CEQA Guideline § 15088.5(a)(3) requires recirculation when "A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it."

Response to Comment ALT-88: Thank you for drawing our attention to these requirements. The Lead Agencies have provided a reasonable range of alternatives for consideration. See the response to ALT-87 and master response ALT-G1.

The Proposed Project has been determined not to be unlawful under the Basin Plan. See master response WQO-G1.

An Antidegradation Analysis is not required to be provided for review with the DEIR/DEIS. See master responses AA-G1.

The DEIR/DEIS was prepared under CEQA and TRPA regulations, not under NEPA. It is not subject to NEPA requirements.

Comment ALT-89: Action Alternative 1 is clearly the environmentally superior alternative. In fact, the Draft EIR/EIS correctly states this in 3 places (pgs. ES-6, ES-8, 5-19). Therefore, the Sierra Club advocates that the Lead Agencies choose this Action Alternative 1. This alternative, however, does not go far enough. There should be an enhanced Action Alternative 1 that tests the non-herbicidal methods in greater areas than those proposed.

Response to Comment ALT-89: See Master Response ALT-G1.

Comment ALT-90: An application filed in January 2017 and an Amended Supplemental application filed in July 2017 proposed that a water-filled barrier be installed in the channel connecting the Lagoons to Lake Tahoe to prevent pollution of the Lake by herbicides and decay products. The potential environmental impacts of the barrier are discussed in the IEC/IS and noted in section 3.1.2 of the Draft EIR/EIS. The barrier would remain for at least 14 days after herbicide application and until pollutants could not be detected within 500 feet of the West Channel. The CMT proposal does not include installation of a barrier and does not justify this omission. Installation of a barrier to prevent pollution of the Lake from the indefinite repeated applications of herbicides would be even more essential. Making the 2017 applications and the July 25, 2018, application available to the public would significantly promote public understanding of the environmental impacts of herbicide use and the analysis of these impacts in the revised DEIR/EIS.

Response to Comment ALT-90: As noted in Section 3.1.2, 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. This most recent application is the basis for the CMT evaluated in the DEIR/DEIS. Links to the applications may be found at the following website: https://www.keysweedsmanagement.org/resources-1. See also response to comment ALT-17.

Comment ALT-91: The discussion of the Control Methods Test (CMT) experimental plan and analysis of the results in section 2.3 is very incomplete. The topics discussed inadequately or not at all

include: (1) the instruments used to measure the results of treatments and their ability to measure the results accurately in diverse lagoon conditions; (2) the principal advantages of the selected set of experimental sites and the selection's avoidance of major deficiencies; (3) the principal advantages of the tentative assignment of treatments to the experimental sites; (4) the limitations on modifications of the experimental plan by plant survey results; (5) the heterogeneity of the experimental sites with respect to numerous factors and the potential confusing of comparisons of treatments by heterogeneity; (6) the apparent invalidation of comparisons between treatments by mechanical harvesting of test sites during the CMT, a potentially serious problem; (7) the limitations of comparisons of treatments replicated only three times.

Response to Comment ALT-91: A description of the project can be found in section 2.3 of the DEIR/DEIS. The description of the project should not supply extensive detail beyond that needed for evaluation and review of the environmental impact. (14 CCR 15124.) The level of detail requested by the commenter is unnecessary for the following reasons:

1) The methods for conducting measurements of the efficacy of aquatic weed control tests are survey methods that have been permitted and used at the Tahoe Keys for many years with no evidence of environmental impacts from surveying. Therefore, a detailed description of the types of efficacy measurements is not needed for the evaluation of the significant impacts from the Proposed Projects. However, additional details on measurement techniques to monitor environmental effects and mitigation success are provided in the APAP and MMRP. The same macrophyte survey methods used to evaluate success of treatments would be used in pre-project surveys.
2) The location and size of test plots is described in Section 2.3.1.2 and shown on Figure 2-4. With the stated intent of reflecting the heterogeneity of the lagoons, test sites are distributed through most of the West Lagoon, except for the large open area connected to the West Channel where the aquatic weed infestations have generally been less dense compared to smaller and shallower lagoon channels. In Lake Tallac, herbicide test sites were placed at the east end of the lagoon out of the main flow path of storm flows that pass through the south arm of Lake Tallac before flowing west toward Pope Marsh. The two new LFA test sites were located to be close to TKPOA facilities with electrical power. The description of these locations is already included in the DEIR/DEIS.
3) The principal advantages of finalizing the assignment of treatments and boundaries of test sites until after spring macrophyte surveys are to (a) ensure that test sites are selected that represent the most dense early-season aquatic weed growth present in the lagoons, (b) match the specific test herbicides to sites where they are likely to be effective for the mix of target species present, (c) provide three replicate sites for each control method or herbicide product tested, and (d) minimize impacts to non-target macrophyte communities. As already described, the description of the possible locations of test sites are described in the DEIR/DEIS.
4) Modifications to the experimental plan using plant survey results would be limited by the need for replicate sites, the need for test sites to be approximately 1 acre or larger, and the need to maintain space or provide barriers between test sites. As already described, the description of the possible locations of test sites are described in the DEIR/DEIS.
5) Heterogeneity will help determine the efficacy and mitigation of potential environmental effects in lagoon areas with different depth, water circulation, physical features, and water quality characteristics. It would not be possible to provide three replicate test sites of at least one acre that would encompass all of the combinations of these factors, so there is no expectation that monitoring results will provide definitive isolation of each variable. A detailed description of the types of efficacy measurements is not needed for the evaluation of the significant impacts from the Proposed Project.

6) See comment response to AWM-13 for an explanation of why mechanical harvesting during the CMT is not considered to be a serious problem in study design.
7) It is acknowledged that three is a minimum number of replicates that will limit the findings of significant differences between test sites, particularly given the large number of variables that could influence the efficacy of different weed control methods. Increasing even from three to four replicates would not be possible without crowding test sites closer together or reducing the size of test plots and compromising the validity of tests. These limitations prevent an ideal study design, but the CMT would still produce important information on what methods worked or did not work in the lagoons. In summary, additional details for the CMT study design would be provided in permit conditions of approval and in the APAP. Therefore, a detailed description of the types of efficacy measurements and comparison techniques is not needed for the evaluation of the significant impacts from the Proposed Project.

Comment ALT-92: The dredging, removal and replacement alternative, Action Alternative 2, was proposed because scoping comments urged the Agencies to investigate it. Dredging would have an extremely serious environmental impact. The sediments that would be removed by dredging contain aluminum, which is toxic to fish and other aquatic organisms. Large quantities of aluminum sulfate were poured into the lagoons in the 1960s to settle the suspended sediments created by the initial dredging yet only 5 samples were taken in the West Lagoon to characterize the level of toxicity that could occur during a dredging operation. The reported aluminum concentrations of all but one of these samples are suspect because of the pH of 4 samples was "outside the range for model inputs" and holding temperature of three of the samples exceeded recommended temperatures. The Draft EIR/EIS does not specify adequate mitigation that would reduce the impacts of this toxicity to less than significant levels. The environmental impacts of Alternative 2 are so serious that it must be rejected.

Response to Comment ALT-92: The potential impacts of short-term increases in aluminum concentrations are evaluated as Issue EH-5 in Section 3.2. Although there were issues with aluminum sampling and analysis that are documented in the DEIR/DEIS and in this comment, there was enough information from the five samples to support the evaluation stating that disturbance of sediment by dredging or other activities has the potential to cause aluminum in the water to exceed both chronic and acute criteria for the protection of aquatic life. As described in the DEIR/DEIS, the potential significant effects of that alternative could be mitigated with turbidity curtains to isolate suction dredging test areas, and treatment and batch testing to demonstrate compliance with aluminum criteria before any dredged sediment dewatering effluent could be discharged. See Master Response EH-G1.

Comment ALT-95: Table ES-1, under the Impact Issues column for ER-1, Suction Dredging and Dredge Materials Disposal, states: "Effects could also occur if spills of dredged sediment (consisting of organic silt and fine sand, plant roots and other organic matter, and lagoon water) occur during transported by pipeline to the location of the old Tahoe Keys Water Treatment Plant for handling, dewatering, or during transport for ultimate disposal." This is the only impact identified in the Earth Resources section (except for destabilizing the private boat docks). The structural integrity of the "old Tahoe Keys Water Treatment Plant" has not been evaluated and concentrations of aluminum in the sediment have not been disclosed or analyzed. These additional impacts must be analyzed and discussed to disclose the full impacts of this alternative.

Response to Comment ALT-95: CEQA requires that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by

the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d]). Also see response to comment ALT-91.

Components of the water treatment plant, other than the large tank and the pipelines to the tank, would not be used by the dredge spoils operation or equipment, so that operability of the equipment is generally not an issue. Although the water treatment plant is not in operation, some components are generally maintained in operable condition. Power supplies, domestic water supply, and sewer are presently hooked up and operable.

The soils under the water treatment plant can be protected by liners and containment structures constructed under the dredge spoils processing units, which can eliminate significant water spills and addition to groundwater, as specified in permit conditions for construction if this alternative were implemented. Dredge spill containment is also addressed in comment ERM-1.

Further design development would be required to implement Action Alternative 2 if it were selected, including whether there are aluminum-impacted sediments in the former filtration beds on the site which might be mobilized by leaks, overflows, or spills.

Estimates of quantities of alum or bulk aluminum sulfate content were not attempted because elutriate tests were performed on sediment samples as a more direct method to estimate the potential to exceed water quality criteria and toxicity to aquatic life. The results of elutriate tests reinforced the importance of requiring real-time turbidity monitoring during any activities that may disturb the bottom sediments. Also see Master Response EH-G1.

Comment ALT-96: Section 2.3.2.2 states: "Testing three replicates for each treatment would allow statistical comparisons of data (e.g., Analysis of Variance "ANOVA") both among treatment sites and with non-treated "control" sites. The replications would provide data on variability among those sites treated with the same herbicide, as well as in comparison to other herbicide treatments, non-herbicide weed control methods, and control sites." Though these statements are rather imprecise, they correctly note the importance of replication of each treatment on several test sites. In general, the greater the number of replications, the greater the confidence in the results. Detecting differences between treatments large enough to be of practical significance for weed control is one of the primary objectives of the CMT. The greater the number of replications, the higher the probability that such differences will be detected if in fact they exist. Three is a small number of replications, especially considering the heterogeneity of the sets of test sites where treatments will be replicated. (The comment on Section 2.3.1.2 is a detailed discussion of the effects of heterogeneity.) The Overview of the Test Program should discuss the limitations on project resources and the reasoning which justified the choice of three replications.

Response to Comment ALT-96: See responses to comments ALT-91 and ALT-95.

Comment ALT-97: The Proposed Project would apply aeration only to herbicide and herbicide+UV sites, and not to UV sites. Action Alternative 1 would not apply aeration to UV sites. Applying aeration to UV test sites would mitigate some environmental impacts of controlling aquatic weeds with UV light. According to the Draft EIR/EIS, aeration would (1) counteract the oxygen demand and water quality impacts from decomposing vegetation and (2) help eliminate anoxic conditions at test sites that can cause the release of phosphorus from the sediments to the water column where it can stimulate algal blooms. The Proposed Project and Action Alternative 1 should be modified to apply aeration to UV sites. Aeration should be applied to the nine UV sites in the enhanced Action Alternative 1.

Response to Comment ALT-97: Page 3.3.4-40 discusses aeration at UV light test sites under issue WQ-5. Because UV light testing is expected to treat plants when they are small and this

treatment is proposed for sites that together comprise a small portion of the lagoons, the oxygen demand from decomposing aquatic plants and effects on overall DO conditions are expected to be less than significant. However, this section also states that aeration systems could be deployed to aerate the water at UV light test sites during the period of plant decay, if real-time monitoring indicates that DO is not meeting permit limits.

Comment ALT-98: Action Alternative 1 (AA1) treats only three sites with UV light. AA1 should be enhanced to treat nine sites with UV light - the 3 UV sites and the 6 herbicide+UV sites where the Proposed Project (PP) applies UV light. Treating nine sites and a greater variety of sites would estimate the effectiveness of UV treatment with a narrower confidence interval. Treating the nine sites where the PP applies UV light would be feasible. The specifications and planned use of the UV treatment equipment needed to perform all the UV treatments of the PP are discussed in section 2.3.3.

Response to Comment ALT-98: Thank you for this suggestion. An increased number of test sites is not expected to affect the comparative evaluation of alternatives, and an increase in the number of test sites is not proposed in the FEIR/FEIS.

Comment ALT-99: Section 2.3.2.3 describes the herbicides proposed for use in the CMT. See the following comments as well as Beyond Pesticides comments, which are incorporated by reference in these comments:

- Endothall (e.g., Aquathol K liquid)
  Washington State Department of Ecology, July 2000, states that "Sites that have never been exposed to endothall products may degrade Aquathol®, Aquathol® K and Hydrothol® more slowly than sites that have had a previous exposure history. This is because it normally takes several weeks for bacteria capable of using endothall as their sole carbon source to develop out of their lag-phase and rapidly degrade applied endothall."
- Triclopyr (e.g., Renovate liquid or granular)
  Californian's for Alternatives to Toxics states: "Commercial triclopyr products are typically composed of 40-50% of the triclopyr acid or salt, and 50-60% of inert ingredients or surfactants. Many of these additives have shown to be significantly more toxic to both humans and animals than triclopyr itself. One of these compounds ethylenediamine tetraacetic acid (EDTA) has been shown to cause birth defects, cleft palate, and abnormal skeletons in test animals. EDTA has also been shown to be 10-fold more toxic to fish than the Garlon formulation alone. Another inert, triethylamine is extremely toxic to the eyes, skin and respiratory system. At least one commercially available triclopyr products contains kerosene, which has been linked to severe gastrointestinal, respiratory and nervous system toxicity."
- Florpyrauxifen-benzyl (e.g., ProcellaCOR™EC liquid) is not approved for use in California.

Response to Comment ALT-99: The statement about endothall degradation rates may potentially be slower at location where endothall has not been previously used was added to the FEIR/FEIS. The potential delayed degradation of endothall would not create a significant impact due to the proposed application rate and associated toxicity profile for endothall and application of resource protection measures during project implementation.

The information on triclopyr that there are different formulations commercially available is known and some formulations have less impurities than others. The two formulations described in the DEIR/DEIS Renovate 3 or Renovate OTF do not contain Kerosene or ethylenediaminetetraacetic acid (EDTA).

The USEPA has determined that endothall and triclopyr would have no significant acute or chronic

impact on fish or freshwater invertebrates when recommended application rates are used.

Florpyrauxifen-benzyl was evaluated in the DEIR/DEIS but would not be permitted if it is not approved for use by California EPA.

Comment ALT-100: Table 2-3, Proposed Test Herbicide Application Treatment Site Details, does not actually provide the quantities of each of the herbicides proposed for use; it only lists the application rate in parts per million. The actual volumes of herbicides, depending on the estimated volume of water to be treated, should be provided for full disclosure and complete analysis of impacts. Also, the application rates in Table 2-3 are the maximum allowable rates that the USEPA allows according to Table 2-2. No rationale or justification is provided for this maximum dose allowed by regulation.

Response to Comment ALT-100: See response to comment HE-90 regarding application rates. Quantities of herbicides to be used at each test site will be determined by applicators after the boundaries of test sites are finalized using information from spring aquatic macrophyte surveys and water volume quantification. Water volume is dependent on the depth of water at the test location. Water depth is dependent upon the lake level and influenced by the amount of precipitation received during the winter season preceding application. Using estimated average water depths and acreages at the example test sites shown on Figure 2-4, total volumes of herbicides that would be applied using maximum label rates at all test sites combined would be approximately 63 gallons of endothall, and 25 gallons of triclopyr or about one half cup of ProcellaCOR™EC (if approved for use).

Comment ALT-101: Herbicide Containment is discussed beginning on page 2-17. Regarding Double Turbidity Curtains, the Draft states: "A 2016 rhodamine dye study tested the performance of double turbidity curtains at two dead-end lagoon locations in the southwestern area of the Tahoe Keys West Lagoon (Anderson 2016). In that study, the curtains retained 98% to 99%of the injected dye for at least 12 to 14 days of monitoring, and similar curtains would be deployed for the CMT." However, the dye was injected at the two dead-end lagoon sites on July 22 and 25, 2016, when stormwater inflows were minimal to non-existent. The Proposed Project, on the other hand, would be applying herbicides in late spring when snowmelt and stormwater inflows are much more likely to overwhelm the turbidity curtains and cause release of the herbicides outside the curtains. The much greater magnitudes of late spring inflows and the potential herbicide releases outside the curtain that may result are not discussed in the Draft EIR/EIS and must be addressed in the revised Draft EIR/EIS.

Response to Comment ALT-101: 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.

Comment ALT-102: Section 2.3.3 states "The ultraviolet light system was designed to treat rooted aquatic weeds so this control method would not be tested in areas where floating coontail are dominant or co-dominant, based on macrophyte surveys, and the final selection of test sites and determination of site boundaries would include this consideration." This assertion does not appear to be consistent with the results of the Aquatic Invasive Plant Control Pilot Project at the Lakeside Marina and Beach. The ultraviolet light system used in that project appears to have treated coontail successfully. Figure 9 of the report shows that coontail "treated with UV-C light in LSM and LSB treatment areas" lost turgor pressure and collapsed to the lake bottom as rapidly as Eurasian watermilfoil did and more rapidly than curlyleaf pondweed did. Are ultraviolet light systems that can treat floating weeds in the Tahoe Keys feasible? If they are not feasible, for what reasons are they infeasible?

Response to Comment ALT-102: The referenced UV light pilot project at the Lakeside Marina and Beach targeted the performance of treating rooted macrophytes (i.e., Eurasian watermilfoil and curlyleaf pondweed) but also monitored impacts to coontail and other aquatic plants. UV light is proposed as a Group A treatment method due to the success shown in the Lakeside Marina study and early testing in the Keys lagoons. UV light would not be used in areas where coontail is the dominant or co-dominant species as the system was designed for treating rooted macrophytes. Other Group A methods would be used in areas where coontail is a dominant species. The implementation of the Proposed Project will contribute to information to assess the feasibility of using UV light to treat all aquatic weeds in the Tahoe Keys lagoons.

Comment ALT-103: Chapter 2 implies, but does not state precisely, that treatments' percentage reductions of biovolume (BV) of vegetation on a test site: ((preBV – postBV) / preBV) *100 are the measures of treatment effect used in comparisons of treatments. A precise definition should be stated.

Response to Comment ALT-103: DEIR/DEIS Section 1.2.2.2 states the following performance measure: "Achieve and maintain 75% reduction in aquatic weed biovolume, as measured against baseline biovolumes in test sites by hydroacoustic scans in the summer prior to treatment. This performance measure is based on prior studies regarding the efficacy of herbicide treatments (Anderson 2017) and would be applied to all aquatic weed control alternatives." The hydroacoustic scans will be performed to determine the biolvolume of plants in the test areas. The test areas pre use of herbicides and after herbicides use will be scanned and biovolumes determined. The difference of those two measurements will be divided by the pre-project biovolume to determine the percent reduction.

Comment ALT-104: The measurement instrumentation and its capabilities should be precisely and completely described. Instrumentation should be capable of measuring the biovolume in the entire cross-sections of the lagoons, including vegetation on the sides, if any, and on dock pilings and buoys. Inaccurate measurements of the biovolumes on the sides, dock pilings, and buoys would confound comparisons of treatments.

Response to Comment ALT-104: Details on instrumentation used to measure macrophyte biovolume were not necessary for evaluating environmental effects in the DEIR/DEIS.

Comment ALT-105a: Section 2.5 discusses Action Alternative 2, the Dredge and Replace Substrate alternative. The itemized cost estimates for every task in this alternative – removal, treatment, disposal and replacement – should have been included.

Response to Comment ALT-105a: See Master Response CST-G1.

Comment ALT-105b: A "sheetpile cutoff wall" is proposed in Section 2.5.1. When this wall is removed, aluminum in the sediments will be released into the water and cause high levels of toxicity to aquatic organisms. This impact is not mentioned, and the sheetpile wall is not discussed further in the document.

Response to Comment ALT-105b: To allow monitoring of performance of the dredging alternative and to avoid migration of sediment from the adjacent untreated lagoon, the alternative includes leaving the sheetpiles in place approximately 1 to 2 feet above the newly excavated mudline. Potential impacts from aluminum toxicity were evaluated as Issue EH-5 in Section 3.2 of the DEIR/DEIS. See Master Response EH-G1.

Comment ALT-105c: The water quality impacts of the aluminum inevitably released into the water column during this alternative cannot be satisfactorily mitigated to less than significant levels… The Draft EIR/EIS does not contain any information about the amount of aluminum sulfate that was poured into the Keys lagoons after construction and the concentration of aluminum in the sediments. The IEC/IS states (p 41) that there were discharges of alum as late as 1998. This information should have been examined thoroughly before selecting AA2 as one of the alternatives to be fully evaluated in the DEIR/EIS.

Response to Comment ALT-105c: Estimates of quantities of alum or bulk aluminum sulfate content were not attempted because elutriate tests were performed on sediment samples as a more direct method to estimate the potential to exceed water quality criteria and toxicity to aquatic life. The results of elutriate tests reinforced the importance of requiring real-time turbidity monitoring during any activities that may disturb the bottom sediments. See response to comment ALT-92 regarding aluminum in the lagoon sediments. Further design development would be required to implement Action Alternative 2, including treatment to remove aluminum from dredge spoils dewatering effluent and safe containment of the dredge spoils and effluent during handling and treatment. See Master Response EH-G1.

Comment ALT-105d: The discussion of facility needed for dredging support states: "Review of the site vicinity indicated that the mothballed Tahoe Keys Water Treatment Plant (TKWTP) located on the south side of Lake Tallac would be the most suitable location for dredge processing and dewatering." The structural integrity of the "mothballed" TKWTP is questionable, but there is no discussion of this potential problem. Also, there is no discussion of whether the TKWTP has the capacity to treat the huge volume of sediment-laden water that dredging would generate.

Response to Comment ALT-105d: See the response to comment ALT-95 regarding the use of the WTP. The DEIR/DEIS indicates land at the TKWTP site would be most suitable for siting dredge spoils processing and dewatering and an existing water tank may be used, but the mothballed treatment plant systems would not be used for treating dewatering effluent. See Master Response EH-G1.

Comment ALT-105e: The discussion of facilities also states: "the existing plant has a low berm around it, which may contain leakage, and probably could be increased to a height of three to four feet or reinforced with a liner to prevent outflow of any dewatering leaks." (emphasis added) What is the volume enclosed by the existing berm that is available for containing outflows, and what is the volume needed to contain the "leakage"? Instead of speculating about these issues, this section should have detailed fully the risks and costs of this proposed use of the TKWTP. The TKWTP is adjacent to and just south of Lake Tallac, a jurisdictional WOUS. Therefore, leaks from the TKWTP and potential failure of the berm would result in waste discharges to Lake Tallac and waters connected to it.

Response to Comment ALT-105e: The volume of water stored in vessels other than the existing water tank is expected to be 10,000 cubic feet at any one time, or 72,000 gallons, and the input line would provide 1000 cubic feet per minute. Assuming that a leak caused all three tanks to release at once on the eastern half of the TKWTP site and the input pump is stopped within 5 minutes, the area enclosed by the berm would be flooded with approximately 3 inches of water.

Further design development would be required to implement Action Alternative 2 if it were selected, including safe containment of the dredge spoils and effluent during handling and treatment. Developing the detailed design for containment would be a step that would occur if this alternative moved forward, but it is sufficient for the DEIR/DEIS to specify that mitigation will be provided by constructing an adequate containment berm.

There are no risks that were overlooked. With regard to cost please refer to the response to

comment CST-G1. Regarding WOUS, please refer to the response to comment WET-1. See Master Response EH-G1.

Comment ALT-105f: Page 2.31 also states: "An anionic polymer would likely be employed to remove aluminum from dewatering effluent, which would chelate (bond to) the aluminum and settle out of solution." No information about this additive is provided in the Draft EIR/EIS or the appendices.

Response to Comment ALT-105f: Further design development would be required to permit Action Alternative 2, including treatment to remove aluminum from dredge spoils dewatering effluent. See Master Response EH-G1.

Comment ALT-105g: Wastewater treatment plants are not designed to accept the large volume of water that would result from the dredging. Therefore, treatment by the TKWTP is most likely not possible, and the treated water, no doubt contaminated by the polymer and aluminum not captured by the polymer, will be released to Lake Tallac, which would violate water quality objectives in the Basin Plan. There is no discussion of the potential concentrations of aluminum and the polymer and their impacts on Lake Tallac.

Response to Comment ALT-105g: If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d].) The TKWTP is not a wastewater treatment plant, nor a domestic water treatment plant, but rather a facility that was constructed for clarifying and improving water quality for the Tahoe Keys Lagoons. As such, the few components that would be reused are suitable for handling large volumes of water. As described in the environmental analysis, the use of the plant site for power supply, laydown, and skid-mounted treatment/dewatering vessels, and reuse of the tank as a surge facility, are reasonable and feasible uses of the TKWTP site.

It is not planned to use the WTP to provide wastewater treatment of effluent. Batch testing of treated dewatering effluent would be required to ensure that it met water quality objectives before each batch could be discharged to Lake Tallac. Discharge of effluent that did not meet the WQOs would not be permitted.

Further design development would be required to implement Action Alternative 2, including the appropriate polymer and its effectiveness in reducing aluminum content, and the dwell time/degradation rate of the polymer that would have the most effect and least impact. Also see Master Response EH-G1

Comment ALT-105h: An estimated 36 million gallons of water/sediment is proposed to be treated through a series of Baker tanks to separate the sediment and aluminum from the water. Discussion of where these tanks would be placed and the impact of their placement is absent. This is a highly unrealistic proposal for which no cost estimates or feasibility assessments are provided.

Response to Comment ALT-105h: This comment is in error. No proposal to use Baker tanks is made. The reference on p. 2-35 simply states that equipment recommended by the design contractor is similar to Banker tanks. This equipment is proposed to be sited at the location of the WTP and that an environmental evaluation of effects that may occur at that location has been completed.

Comment ALT-105i: We estimate that one thousand truckloads (285 + 715) of replacement sand for the dredged areas would be needed. It is extremely unlikely that 715 truckloads of treated sediment can be reused, as this section suggests. The treated sediment would almost certainly not satisfy the very low turbidity requirements that sand for any replacement projects, such as beach replacement

projects, must satisfy. This is another unrealistic and cost- prohibitive aspect of this alternative, again showing that this alternative was merely proposed to add an alternative to the Draft EIR/EIS.

Response to Comment ALT-105i: We note the difference of opinion on the number of truckloads required.

This alternative was added in response to comments in scoping requesting evaluation of this type of alternative.

Comment ALT-106: Section 2.7 is called "Aquatic Weed Control Methods Eliminated from Group A Consideration." Why is this section not called "Aquatic Weed Control Methods Eliminated from Alternative Selection"? Group A is the herbicides, UV and LFA part of the Proposed Project. The eliminated weed control methods, such as barriers and wetland restoration, were suggested during the scoping phase as alternative methods for protecting Lake Tahoe. Since protecting Lake Tahoe should be the Lead Agencies number one concern, these alternative methods should have been included in the analyses of this Draft EIR/EIS.

Page 2-40 begins with "Isolate Tahoe Keys from Lake Tahoe." This suggestion should not have been dismissed. In fact, TKPOA has even considered a barrier, as discussed on pages 3.1-18, -19, and -20, 3.3.1-5, 3.4-15 (See also General Comment #18). There is no explanation of why this Group A control method was eliminated from consideration. A barrier, permanent or temporary, between the Keys' Lagoons and the Lake would be the most expedient and effective mechanism to protect the Lake. Yet, this alternative was dismissed for the sake of prioritizing recreational boating over the health of Lake Tahoe. Also, the West Channel Water Barrier was cited as one of the mitigation measures in the Joint TRPA Initial Environmental Checklist and CEQA Initial Study (MM-HH-10 on page 58). What was the basis for the decision to eliminate this mitigation measure from the Draft EIR/EIS?

Page 2-41 discusses "Tahoe Keys Wetland Restoration," which was dismissed because "restoration would have substantive impacts to navigation, and to the recreational and aesthetic values underlying the appeal of Tahoe Keys properties, and thus to property values within the Keys." The paragraph continues with the following statement: "Wetland restoration options could be considered in a future environmental evaluation of long-term aquatic invasive species management of the Tahoe Keys. However, the purpose of the CMT is to test alternative methods of target aquatic weed control, and by definition aquatic weeds would not occur where their habitat has been eliminated, whether by filling or replacing the habitat that favors weeds with a natural wetland. Therefore, restoration alternatives do not require testing and were not carried forward for further evaluation in this DEIR/DEIS." Yet, the Lead Agencies have not justified the project's piloting herbicide use when the effectiveness of non-chemical is still being evaluated.

Response to Comment ALT-106: Please see responses to comments ALT-17 and ALT-90.

Comment ALT-107: The Lead Agencies have declined to include a feasible project alternative that would clearly lessen the significant environmental impacts of the project. The Lead Agencies have not complied with CEQA on the basis of prioritizing recreational boating over the environmental fate and health of Lake Tahoe.

Response to Comment ALT-107: The Lead Agencies have provided a reasonable range of alternatives for consideration. Neither the Proposed Project nor the action alternatives were found to entail significant unmitigated effects, so an additional alternative to lessen significant effects would not add value.

The lead agencies have not prioritized recreational boating over the environmental fate and health of Lake Tahoe.

Comment ALT-109: Page 3.2.16 states "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." What concentrations of Rhodamine would be used? This information should have been provided. The LC50 of Rhodamine WT dye is >320mg/l for rainbow trout (96 hr) and 170 mg/l for daphnia magna. In addition, the water supply contingency plan if herbicides are detected in nearby wells would shut off the wells and distribute water to all users. The feasibility of distributing water is questionable considering the number of users.

Response to Comment ALT-109: 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. Also see Master Response WS-G1 regarding water supply contingencies.

Comment ALT-110: The assumptions of the Earth Resources analysis include the assumption that dredging may destabilize existing bulkheads and slopes. The destabilization would be mitigated by "replacement of any affected docks and bulkheads at the end of the test dredging." In addition to the costs of dredging, aluminum extraction, effluent and sediment disposal, and sediment replacement, there may be the additional cost of replacing the homeowners' private boat docks? Again, although no cost estimates have been provided in this Draft EIR/EIS, it is obvious that dredging is an outrageously expensive alternative and should be rejected for that reason alone. Taxpayers should not be expected to pay for it.

Response to Comment ALT-110: If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d].) See Master Response ALT-G1, and responses ERM-1, and CST-G1.

Comment ALT-111: The Potential Impacts section under Issue ER-1, (page 3.3.1-6) states "Any release of this material during transport across the lagoons would deposit sediments with high aluminum concentration in the receiving waters or nearby land. An uncontained release of dredge slurry could have a potentially significant impact, but this would be mitigated by containment." Does this planned containment include a containment structure for the entire 4000' section of 6" HDPE dredge line for site 28 shown in Figure 2-10? Such a large containment structure would be highly unrealistic.

Response to Comment ALT-111: A spill containment and response plan to minimize the risk from a dredge slurry pipeline spill could include technologies such as a spill detection system that would shut off suction dredging and limit water quality effects to short-term and temporary increases in turbidity and aluminum or use of a larger outer pipe to provide containment. See Master Response EH-G1 and response to comment ERM-1.

Comment ALT-112: Page 3.3.1-6 refers to dewatering at the defunct water treatment plant (WTP) as follows: "Dewatering at the WTP would lead to storage of up to one million gallons of dewatering effluent in an existing concrete tank of unknown integrity." (emphasis added) Again, Action Alternative 2 is not well thought-out or planned. The integrity of the TKWTP is unknown, the disposal of the treated effluent is uncertain, and the risks of spills from the pipes carrying the dredged slurry cannot assuredly be mitigated by containment.

Response to Comment ALT-112: See response to comments ALT-95 and 105d, and comment ERM-1.

Comment ALT-114: Issue WQ-6, on page 3.3.4-58, cites a study by Cooke et al (2005), which suggested that "sediment removal could be effective for aquatic weed control only if the resulting water depth was below the depth limit at which the weeds could achieve sufficient light for growth and reproduction. Dredging to such depths is not proposed under Action Alternative 2. For suction dredging to be able to sustainably reduce the problem of nutrient cycling, the newly dredged bottom depths would have to exceed the deepest depth to which aquatic weeds grow in the Tahoe Keys, otherwise such an approach may only bring about a temporary reduction in aquatic weed biomass." And later, this section states "Over a longer period of time, if suction dredging was done to a depth that reduced the potential for regrowth of aquatic weeds, TP concentrations could decrease in the water column if dredging is sufficiently deep that fewer decaying plants are supported, affording less biomass for nutrient remineralization. However, this project does not propose dredging to sufficient depths to expect sustainable reductions in TP cycling and this potential benefit would not be expected." Therefore, AA2, as proposed, would not be a lasting long-term solution to the problem of weed growth.

Response to Comment ALT-114: As described in the DEIR/DEIS, Section 2 and shown on Figure 2-1, all Group A methods (including dredging and replacement of substrate) are followed with implementation of Group B methods. As with other Group A methods proposed for testing in the DEIR/DEIS, long-term success at aquatic weed control would rely on effective ongoing implementation of Group B weed control methods to manage invasive weed species and encourage/maintain establishment of desirable native macrophyte communities. The intent of the CMT is a test of methods to manage weeds in the Tahoe Keys lagoons, to help inform the development of a long-term management strategy.

Comment ALT-115: Issue WQ-2, Sediment Disturbance and Turbidity, on pages 3.3.4-59 and -60 has a number of issues:

- It refers to "silt curtains" being used to confine the turbidity from dredging and substrate replacement to the area of work. Silt curtains are an erosion control method, not a turbidity control method.
- This section refers to "spill control and containment plans from accidental spills of dredge spoils" that include provisions for storage and processing. These plans should have been included in the Draft EIR/EIS to inform the public of the full impacts of this alternative.
- This section states "Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac." A complete analysis of the environmental impacts of this alternative would have included the details of the treatment of the water and aluminum-laden sediment mixture. This alternative has only been partially analyzed, suggesting that it was included only to add an additional alternative after scoping phase comments complained of the lack of alternatives. This alternative was never really taken seriously and would be prohibitively expensive. Intentionally including an infeasible and prohibitively expensive alternative just to add another alternative to an environmental document that lacks alternatives is a wasteful use of public resources and violates CEQA. An EIR must "describe 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 and evaluate the comparative merits of the alternatives." CEQA Guidelines § 15126.6(a). (emphasis added)

Response to Comment ALT-115: This alternative was included in response to requests made by stakeholders during scoping. Its inclusion helps provide a reasonable range of alternatives for analysis, including creative alternatives that would avoid the use of herbicides. It has been analyzed and described at a level consistent with the requirements of CEQA and TRPA. See comment

responses ALT-95 and ALT-111.

Comment ALT-116: I request (nay, BEG) that you please choose ALTERNATIVE ACTION 1 (AA1), as the MOST environmentally sound option, that would cause the least deleterious side effects on the lake and its inhabitants.

Response to Comment ALT-116: See Master Response ALT-G1.

Comment ALT-117: The discussion on page 2-5 regarding the feasibility criterion for selecting alternatives states "The CEQA Guidelines and the TRPA both define feasible as "Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." (State CEQA Guidelines Section 15364). In determining which alternatives are potentially feasible, this DEIR/DEIS focuses on consideration of technical and economic feasibility/practicality; the potential to violate federal, regional or State statutes or regulations; and whether an alternative balances relevant economic, environmental, social, and technological factors." Yet, no cost estimates are disclosed in the Draft EIR/EIS, the dredging alternative (AA2) was added after scoping comments complained about the lack of alternatives (even though AA2 is clearly the most costly alternative), and the Sierra Club's scoping requests for study of a barrier and restoration (much cheaper alternatives) were dismissed.

Response to Comment ALT-117: Thank you for drawing our attention to this requirement. The DEIR/DEIS provides a feasible range of alternatives for consideration. Also see response to comment ALT-17 and Master Responses CST-G1 and RES-G1.

Comment ALT-118: The discussion of the experimental plan and analysis of the results of the CMT, in section 2.3 is very incomplete. This comment and the next three comments present the evidence supporting that assertion. The second paragraph of section 2.3 (page 2-9) states: "Mechanical harvesting would continue to be performed at all sites (both test and control sites) during the testing period. As a baseline condition of the test project, harvesting would be conducted when and as needed following the existing harvesting protocol implemented by TKPOA."

Harvesting the control sites following the existing harvesting protocol is indeed the "treatment" to be applied to control sites. Routine mechanical harvesting of the experimental sites is not the appropriate baseline. The measures of treatments' effects on test sites are the treatments' percentage reductions of vegetation biovolume. These biovolume reductions are the data used in the statistical analysis of the CMT results. If test sites are mechanically harvested before the after-treatment biovolumes have been measured, the "treatments" whose effects on the sites are measured would be the effects of the experimental treatments for varying time periods plus harvesting.

Experimental treatments plus harvesting are not the treatments to be compared by the CMT. There appears to be no possibility of distinguishing the effects of the experimental treatments on the after-treatment biovolumes from the effects of harvesting. Because the effects cannot be distinguished, all the comparisons of experimental treatments involving the test sites that have been harvested would be invalidated. Leaving the experimental sites unharvested until the after-treatment biovolumes have been measured is also the appropriate baseline because TKPOA has proposed the CMT to test alternatives to mechanical harvesting.

If the project designers believe that mechanical harvesting of test sites will not invalidate comparisons between test sites, they must provide detailed justifications in the Final EIR/EIS. The phrase "harvesting would be conducted when and as needed" implies that test sites would be harvested to ensure that homeowners with docks in the test sites would be able to use their boats during the test. Inconvenience to these homeowners is not a sufficient justification for invalidating

the comparisons of the CMT.

Response to Comment ALT-118: See responses to comments ALT-91 and AWM-13. See also Master Response AWM-G2.

Comment ALT-119: Section 2.3.1.2 discusses "Location and Size of Test Plots, Including Controls." The experimental sites are characterized by seven factors (section 2.3.1.2) which may significantly affect a site's responses to treatment. The seven factors are: water depths, water clarity, nutrient inputs, water circulation, shoreline conditions (e.g., bulkheads vs rocky or irregular shores), density and sizes of docks, and effects of wind and weather. Numerical or categorical values of several of these factors may be available for sites, but it is doubtful that values of some factors, for example effects of wind and weather, are available. Information about the magnitudes of the factors' effects on treatment responses is likely to be limited or unavailable. Consider the effects of the differences between the factor values of sites receiving the same treatment on the estimation of the variability of the responses to that treatment. The differences of factor values may significantly affect those sites' responses to the treatment and consequently affect the estimation of variability between sites. Next, consider the effects of the differences between the factor values of the sets of sites receiving different treatments on the comparison of the treatments. The differences between the factor values of the sets of sites likewise may significantly affect and confuse the comparisons of the treatments. If the number of replications of each treatment were much larger than three, then claiming that (1) the effects of heterogeneity on the variability of sites' responses within treatments are similar across treatments and (2) heterogeneity does not significantly affect comparisons of the treatments might be plausible. These assertions are not plausible for three replications. The data analysis plan should acknowledge the potential effects of heterogeneity on the estimations of variability and comparisons of treatments. There may be factors whose potential effects on estimations and comparisons are obvious, even if unquantifiable. The effects of these factors should be noted in the interpretations of results.

Response to Comment ALT-119: See response to comment ALT-91.

Comment ALT-120: Section 2.3.2 states: "Detailed hydroacoustic and aquatic macrophyte … survey results [in the test sites] 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." Best matching the target species present would increase herbicide treatment effects (percent changes in biovolume), perhaps not equally for all herbicide and herbicide+UV treatments and bias all the comparisons involving these treatments. The experimental plan should include detailed discussion of whether significant improvements in the test can be expected from this use of the survey results. The difficulties of making detailed adjustments in the application of herbicides, the varied locations of non-target species within the sites, and the dispersion of herbicides might defeat attempted minimization of effects on non-target species. The requirement that each herbicide be applied to three herbicide sites and three herbicide+UV sites may strongly constrain attempts to best match the target species.

Response to Comment ALT-120: See response to comment ALT-91. Using the herbicide product expected to be most effective on the target species present at a site is an intended aspect of the study design. For example, triclopyr is not an herbicide that would be used in treating a lake infested with curlyleaf pondweed. To select endothall instead of triclopyr for a test site dominated by curlyleaf pondweed would provide an opportunity to see if an herbicide could be effective. There would be little information gained from testing triclopyr at that site and simply confirming the expectation that it does not work on Curlyleaf Pondweed (CLP). While it is a goal to test three replicate sites with each herbicide, it will not be known for certain if that can be accomplished until the pre-application surveys are completed.

Comment ALT-121: CEQA Guidelines state "[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly." § 15126.6(b). (emphasis added) Therefore, revision and recirculation of the Draft EIR/S are required by the absence of the required range of reasonable alternatives. CEQA Guideline § 15088.5(a)(3) requires recirculation when "A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it."

Response to Comment ALT-121: Thank you for drawing our attention to this requirement. The DEIR/DEIS provides a reasonable range of alternatives for consideration. Also see master responses ALT-G1 and PP-G1.

Comment ALT-122: Section 3.1.2.9, Terrestrial Biology and Ecology, referred to possible effect on terrestrial biology and ecology from "the proposed west channel barrier…; the barrier is no longer an element of the CMT." (emphasis added) There are other references in the Draft EIR/EIS to this barrier, on the same page in Sections 3.1.2.8 and 3.1.2.10, and previously in Section 3.1.2.3 and Section 3.1.2.5. Section 3.1.2.12 refers to an impermeable barrier. TKPOA contracted with D&A Civil Engineering to study the proposed west channel barrier, a temporary (5-7 weeks) water-filled barrier to be installed during the methods test evaluated in the IEC/IS. The study is summarized in a Technical Memorandum "Tahoe Keys – West Channel Barrier" referenced in the IEC/IS. The Technical Memorandum presumably contains comprehensive information about characteristics of the proposed installation site, effectiveness of the barrier, and environmental impacts of the barrier. This information, which would help the public evaluate a barrier, should be made available in this environmental review process. Why was the barrier not considered as a potential solution to help protect the Lake, the mission of the Lead Agencies? Also, the West Channel Water Barrier was cited as one of the mitigation measures in the Joint TRPA Initial Environmental Checklist and CEQA Initial Study (MM-HH-10 on page 58). What was the basis for the decision to eliminate this mitigation measure from the Draft EIR/EIS? The barrier should be incorporated into this environmental review process as the best short-term solution to the increasing weed infestation throughout the Lake.

Response to Comment ALT-122: Please see responses to comments ALT-17 and ALT-87.

Comment ALT-123: The League feels strongly that ALL tools need to be tested during the 3-yr controlled testing period. That is what the testing program is for!

Response to Comment ALT-123: See Master Response ALT-G1.

Comment ALT-124: They appreciated the no action alternative which is often dismissed readily in an EIS/EIR. These authors took it all the way through as a distinct alternative. It has the greatest significant adverse impact of any alternative to do nothing and continue the status quo. The League's mission is to protect the Lake ecology. This makes a compelling case for action and not delaying.

The Proposed Project concludes that there's less than significant impacts to environmental health, water quality, and aquatic biology. They do have questions about Action Alternative One, the non-chemical alternative being the environmental superior alternative. The rationale is basically to test the herbicides using turbidity curtains and blocking boats from the Tahoe Keys for about three to four months in the Spring of year one. They feel that it's a small price to pay for a Tahoe Keys boater when they are going to have years and years of cleaner channels to navigate. However, they are not thrilled about herbicide use and have never endorsed it but do want to see all tools tested. They

don't feel Alternative Action One has enough tools in the tool box. The Group A tools are laminar flow and ultraviolet light. As shown, ultraviolet light is done from a barge down the center of channels. There's 900 piers and docks in the Tahoe Keys and the ultraviolet light cannot get under those with the ultraviolet light and it doesn't kill the roots or the turions. Laminar flow will probably be best as a spot treatment. They're questioning whether Action Alternative One is robust enoYugh to solve the problem as we cannot afford to lose three years.

The objective in the document is to reduce the plant biomass by 75%. The risk is that they waste three years if all the tools aren't tested.

Response to Comment ALT-124: See Master Response ALT-G1

Comment ALT-125: The laminar flow aeration has been an option that she's presented to staff since 2017. This is something that can run all year long, but it didn't run in the Tahoe Keys last winter. We could have been using some of these tools more aggressively over the past 40 years. This is the first time to try something in large scale and suggested trying the non-herbicide alternatives in the proper scale first before trying the chemical method. There's scientific knowledge in Minnesota about aquatic weeds mutating and getting stronger when they are subjected to aquatic herbicides.

Response to Comment ALT-125: See Master Response ALT-G1.

Comment ALT-126: This proposal isn't for a full-scale project; the League isn't supportive of going all in on herbicides or any of these methods without doing a test. This is a three year test. The first year would have a few months of herbicides followed by 2.5 years of non-chemical methods. They've seen herbicides that have been effective and also not effective in other places but haven't seen degraded water quality due to herbicides in other places. There's no time to delay or spend time on unproven methods. They supported this test and the phasing proposed. They are not supporting the use of herbicides before seeing the anti-degradation analysis but based on the environmental review, they are supportive of this test project.

Response to Comment ALT-126: See Master Response ALT-G1.

ANTIDEGRADATION ANALYSIS/NPDES

Comment AA-1: When will the Anti-Degradation Analysis be released so that we have the full picture? It needs to be done in concert with the Draft and Final EIS/R.

Response to Comment AA-1: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-2: The Administrative Procedures Update for the Antidegradation Policy Implementation for NPDES Permitting (APU) (page 3) states "When a discharge is included in a project requiring CEQA documentation, the antidegradation analysis should be integrated in the environmental review process." (emphasis added). In addition, Appendix I-5 to the APU, which is EPA's Guidance on Implementing the Antidegradation Provision of 40 CFR 131.12, states the following: "Actions covered by antidegradation provisions include, but are not limited to the following: … Other Actions… 3. Other "major Federal action" (pursuant to NEPA and the Endangered Species Act)." (emphasis added). Therefore, the antidegradation analysis must be presented with the Draft EIR/EIS and was not and has still not been released. In light of this, does the Water Board and TRPA plan on extending the comment deadline? Several people have raised the fact that TKPOA has not fulfilled the prohibition exemption criteria of demonstrating the failure of non-chemical methods and the agencies have yet to respond to this. I think a response is warranted.

Response to Comment AA-2: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Responses AA-G1. Also see Master Responses ALT-G2, HER-G1 and REG-1.

Comment AA-5: The anti-degradation analysis is not included in the draft. Though, inclusion of this analysis was promised during the scoping phase of this project. Since the anti-degradation analysis is essential to allowing herbicide use in Lake Tahoe for the first time, and since it's mentioned in the draft at least 60 times, they assert that the public comment period should be 60 days from the release of the anti-degradation analysis instead of 60 days from the release of the draft Environmental Impact Statement/Environmental Impact Report.

Response to Comment AA-5: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-6: Based on the fact that an Exemption Application was submitted to the Lahontan RWQCB for the application of pesticides, the information included in the Antidegradation analysis would have been helpful to include in the EIR/EIS.

Response to Comment AA-6: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-7: The Federal Requirements section notes the need for a complete Antidegradation Analysis; however, this was not included in the EIR/EIS analysis.

Response to Comment AA-7: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-8: In Section 6.1.4, Federal Antidegradation Policy, the discussion mentions that certain project components (aquatic herbicides, injection of acetic acid) would be subject to antidegradation policies; however, it cannot be determined at this time how the project or chosen alternative would comply with the Federal Antidegradation Policy.

Response to Comment AA-8: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-9: In section 6.1.4, it states if detectable concentrations of applied aquatic herbicide active ingredients or select degradation byproducts are present longer than "weeks to months, not years" the discharges would be assessed to cause long-term water quality degradation. Has the same criteria been applied to the decades of mechanical harvesting, has mechanical harvesting been assessed to cause long-term water quality degradation?

Response to Comment AA-9: TKPOA is required to conduct aquatic weed management through submittal and implementation of an Integrated Management Plan (IMP) through its existing WDR requirements (Order No. R6T-2014-0059). A finding regarding the antidegradation policy was included in the existing WDR. Also see Master Response ALT-G2.

Comment AA-10: The Draft EIR/EIS does not include any significant discussion regarding how the project will meet the criteria for allowing degradation, even short term, associated with portions of the Proposed Project. In contrast, the draft EIR/EIS includes significant discussion regarding how the project will comply with other environmental standards. This is a major deficiency in the draft EIR/EIS.

Response to Comment AA-10: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-11: The TRPA and Lahontan Water Quality Board have not yet provided an Anti-Degradation Analysis promised in the Notice of Preparation.

Response to Comment AA-11: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-12: The Proposed Project's use of herbicides requires compliance with the State's Antidegradation Policy, State Water Resources Control Board Resolution 68-16. Since the analysis required to meet this policy requires consideration of alternatives along with the evaluation of the feasibility and efficacy of mitigation measures, it is prudent to include this analysis within the context of the environmental document. There is no reason to have it be a stand-alone document. In fact, when the analysis is done independent of the environmental document, new alternatives and/or new mitigation measures often result. Then, the Lead Agency or Responsible Agency must create an addendum or supplemental environmental document or a new environmental document. This analysis should be included in the draft EIR/EIS and would bolster and improve the alternatives analysis.

Response to Comment AA-12: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-13: you have produced an EIR that is … missing an antidegradation analysis.

Response to Comment AA-13: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1.

Comment AA-14: given that you did not include the antidegradation analysis in your EIR as it should have been, we won't be able to get the data that we need before the end of the public comment period. It would have been more prudent to delay the draft EIR until the antidegradation analysis could be included. You decided to handicap the public and exclude the data so that we would not have accurate information in a timely manner.

Response to Comment AA-14: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see Master Response AA-G1

Comment AA-15: The Antidegradation Analysis has been unlawfully deferred and segmented from the EIR/EIS process instead of being integrated with the EIR/EIS process. The Draft EIR/EIS recites (at p. 1-13), "A complete Antidegradation Analysis (AA) will be required for the Proposed Project consistent with State and Federal antidegradation policies, following the Administrative Procedures Update on Antidegradation Policy on Antidegradation Policy implementation for National Pollutant Discharge Elimination System (NPDES) Permitting (State Water Board 1990), the Water Quality Control Plan for the Lahontan Region (Basin Plan) and policy originating from the process developed to allow for exemptions to the Basin Plan prohibition on use of aquatic pesticides and herbicides. The AA will include an evaluation of whether the project has any unreasonable effects on beneficial uses, such as long-term water quality degradation, exceedance of Basin Plan water quality objectives, and impacts to non-target native species. Consistent with State and Federal antidegradation policies and State Water Board Resolution 68-16 Statement of Policy with Respect to Maintaining High Quality in California, the AA will also address balancing potential degradation with social economic effects of the Proposed Project and alternative approaches to aquatic weed control at the Tahoe Keys lagoons test areas." The Antidegradation Analysis is apparently scheduled to be completed in November. The agencies have refused to extend the comment period on the Draft EIR/EIS so that public reviewers and commenters, and decision-makers, would have the benefit of the critical information to be provided by the Antidegradation Analysis. Depriving the public of the Antidegradation Analysis during the review period for the Draft EIR/S is astonishing. In addition to being astonishing, this deprivation violates CEQA. The CEQA Guidelines are codified at 14 Cal. Code Regs § 15000 et seq. The second sentence in CEQA Guidelines § 15124(d)(1)(C) requires, "To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements." CEQA's policy is to conduct integrated review. Banning Ranch Conservancy v, City of Newport Beach (2017) 2 Cal.5th 918, 939, 942. Moreover, "Lead agencies in particular must take a comprehensive view in an EIR." Banning Ranch Conservancy, 2 Cal. 5th 918, 939, citing CEQA, Public Resources Code § 21002.1(d.) CEQA Guidelines § 15378(c) provides, "The term 'project' refers to the activity which is being approved and which may be subject to several discretionary approvals by government agencies. The term 'project' does not mean each separate governmental approval." CEQA prohibits the segmentation, or piecemealing, of environmental analysis. The agencies have failed to proceed in the manner required by CEQA because of the deferral and segmentation of the Antidegradation Analysis from the Draft EIR/EIS document and process. The agencies are failing to proceed in the manner required by CEQA, and NEPA, because they have deferred and separated the Antidegradation Analysis from the Draft EIR/EIS analysis and process. The public has been unlawfully precluded from having the Antidegradation Analysis to review along with the public's review of the Draft EIR/EIS. The decision-makers have blinded themselves to the informed public review and comment on the Draft EIR/EIS that

should be but is not informed by the missing Antidegradation Analysis.

Response to Comment AA-15: Compliance with NEPA is not required for this EIR/EIS. The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see master responses AA-G1 and REG-1. As to why recirculation of the DEIR/DEIS is not required, see master response PP-G1.

Comment AA-16: The absence of the Antidegradation Analysis renders the Draft EIR/EIS so inadequate that meaningful public review and comment has been precluded, requiring recirculation under both CEQA and NEPA. CEQA Guidelines § 15088.5(a)(4) requires recirculation when, "The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." NEPA Regulation § 1502.9(a) requires, "Draft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process. The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action." The absence of the Antidegradation Analysis renders the Draft EIR/EIS so inadequate as to preclude meaningful analysis, review, and comment by the public, and meaningful analysis and review by the decision-makers. Consequently, revision and recirculation are required by both the CEQA Guidelines, and the NEPA Regulations. Recirculation of a revised Draft EIR/EIS must take place after the Antidegradation Analysis is available for public review.

Response to Comment AA-16: Compliance with NEPA is not required for this EIR/EIS. The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see master responses AA-G1 and REG-1. As to why recirculation of the DEIR/DEIS is not required, see master response PP-G1

Comment AA-17: Lake Tahoe has been designated as a Tier III Outstanding National Resource Water (ONRW). The high water quality of Tier III ONRWs is protected and maintained by antidegradation regulations. Any proposal or action to degrade the high water quality, for example by discharging chemical substances into Lake Tahoe, requires an antidegradation analysis as well as a National Pollutant Discharge Elimination System (NPDES) permit. "Any action" includes CEQA/NEPA actions. The antidegradation analysis should have been included in the Draft EIR/EIS, and in fact Lead Agency staffs stated during the scoping phase workshops that the analysis would be included. The Sierra Club has requested that the Lead Agencies extend the comment deadline to 60 days from the release of the antidegradation analysis. The Agencies have not responded to our letter and have recently stated that the antidegradation analysis would not be completed until months after the comment deadline.

The State Water Resources Control Board has issued an Administrative Procedures Update for the Antidegradation Policy Implementation for NPDES Permitting (APU). The APU states (page 3) "When a discharge is included in a project requiring CEQA documentation, the antidegradation analysis should be integrated in the environmental review process. If the Regional Board is not the lead agency on a project requiring an antidegradation finding, the Regional Board should ensure that the lead agency includes the antidegradation information in the EIR." (emphasis added) The EPA requires States to develop an antidegradation implementation method, as stated at EPA's website: "Along with an antidegradation policy, States/Tribes also are required to identify their implementation method. In so doing, the State/Tribe establishes how and when the policy will be

applied and what criteria will be used in its decision-making." (emphasis added) The APU is the State's antidegradation implementation method and therefore must be followed.

In addition, Appendix I-5 to the APU, which is EPA's Guidance on Implementing the Antidegradation Provision of 40 CFR 131.12, states the following:

> "Actions covered by antidegradation provisions include, but are not limited to the following: … Other Actions… 3. Other "major Federal action" (pursuant to NEPA and the Endangered Species Act). (emphasis added) For Tier III waters, no degradation of water quality is allowed other than short-term, temporary changes. How can a conclusion be made that the Antidegradation Policy allows for short-term degradation if an antidegradation analysis has not been provided? Therefore, the antidegradation analysis must be included in a revised Draft EIR/EIS.

Response to Comment AA-17: Compliance with NEPA is not required for this EIR/EIS. The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see master responses AA-G1 and REG-1.

Comment AA-18: The Lead Agencies are also prioritizing the interests of Tahoe Keys homeowners over the interests of other communities in the Lake Tahoe Basin and the interests of visitors from around the country and world. This is contrary to the requirements of an antidegradation analysis.

Response to Comment AA-18: Public comment, review and input received from all of these sources was given equal consideration in the environmental review process and lead agency decision-making. No party enjoyed privileged influence on the process, environmental evaluation, and project decisions.

Comment AA-19: The Proposed Project's use of herbicides requires compliance with the State's Antidegradation Policy, State Water Resources Control Board Resolution 68-16, which states (in part): "2. 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." (emphasis added). We contend that neither (a) nor (b) can be assured; and that therefore the discharge of herbicides would violate the State's antidegradation policy. First, the use of herbicides increases the likelihood of harmful algal blooms, including deadly cyanobacteria, to an unavoidably significant level (Harris et al, 2016). Therefore, requirement (a) of the resolution is not satisfied. Second, the use of herbicides must maintain the highest water quality consistent with the maximum benefit to the people of the State. The previous general comment pointed out that the sole beneficiaries of herbicide use would be Tahoe Keys homeowners. Therefore, the use of herbicides is not consistent with the maximum benefit to the people of the State and must not be allowed.

Response to Comment AA-19: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. For discussion on how harmful algal blooms are mitigated to a less than significant impact, see response CYB-1.

Comment AA-20: The executive summary, page ES-7, states: "CEQA requires a statement of issues to be resolved and areas of controversy." Taking that to mean that issues and areas of controversy need to be discussed in the Draft EIR/EIS so that they can be resolved, the list of 12 issues to be resolved includes several that are not discussed or discussed only cursorily. These [include] the

antidegradation analysis, which the Lead Agencies have stated will not be published until months after the Draft EIR/EIS comment deadline.

Response to Comment AA-20: The antidegradation analysis was released with the Draft National Pollutant Discharge Elimination System permit. As to why the antidegradation analysis did not need to be included in the DEIR/DEIS, see master response AA-G1.

AQUATIC EFFECTS

Comment AQU-1: Competitive exclusion and impacts from potentially increased growth of curlyleaf pondweed would be a smaller problem with non-chemical methods because of the targeted nature of the herbicides proposed and non-targeted nature of the non- chemical methods.

Response to Comment AQU-1: Issue AQU-2 describes a potential for competitive exclusion favoring curlyleaf pondweed that is expected to be greater at sites testing florpyrauxifen-benzyl or triclopyr than at sites testing endothall, UV-light, or LFA. However, using pre-treatment macrophyte surveys to identify the mix of target species at test sites, sites with abundant curlyleaf pondweed would be treated with endothall that has been shown effective in controlling all three target species. The small areas for testing and the ability to tailor herbicide selection to the target species present led to a conclusion that the competitive exclusion impact would be less than significant.

Comment AQU-2: The Draft EIR/EIS does not discuss or analyze the potential for hybridization of Eurasian milfoil which is more prevalent where aquatic herbicides have been used. (Thum et al. 2017) There are multiple, genetically-distinct types (genotypes) of hybrids of invasive Eurasian milfoil and native watermilfoil, and a genetic study should have been done to investigate hybridization potential at the Keys.

Response to Comment AQU-2: The Thum et al. (2017) study looked at prevalence of watermilfoil hybrids in different embayments in a large Minnesota lake following seven years of bay-wide herbicide treatment. In contrast, the CMT proposes a one-time test of aquatic herbicides at small test plots within the Tahoe Keys lagoons. The Minnesota study does not indicate a potentially significant hybridization issue with the CMT.

Comment AQU-3: Section 3.1.1.6, Aquatic Biology and Ecology, states (page 3.1-8) that aquatic weed control will improve the habitat. The Keys are an unnatural habitat suitable mainly for invasive weeds (and boats) and a few highly tolerant species, both native and non- native. Non-chemical aquatic weed control methods may improve water quality in the Keys and reduce weeds if the nutrients that nourish their growth are reduced. But the habitat will remain a stagnant lagoon system that is especially suitable for non-native species of both flora and fauna. Continued warming of the climate will only enhance this suitability. The only way to truly "improve habitats" is to restore the lagoons to marsh, which would eliminate weed habitat entirely and provide filtration for ongoing nutrient inputs and habitat for a myriad of other native species, both aquatic and terrestrial.

Response to Comment AQU-3: The statement that aquatic weed control will improve habitats for native flora and fauna would apply to any weed control method that is successful at reducing the dense infestations of target species at Tahoe Keys. For example, the dense aquatic weed beds currently provide cover for invasive predatory fish that feed on native fish. Controlling the aquatic weed infestation would not create a natural habitat or replace all the functions of the historic marsh lands, but it would improve existing habitats. With regard to restoring the Tahoe Keys, see Master Response RES-G1

Comment AQU-4: Issue AQU-2, Competitive Exclusion of Aquatic Macrophytes Due to Increased Growth of Curlyleaf Pondweed, (page 3.1-9) discusses the undesired side effects of species specificity of herbicides. If an herbicide does not control all the weeds present, the weeds that it does not control gain a competitive advantage. Because tricloypyr and florpyrauxifen-benzyl do not effectively control curlyleaf pondweed, which is on the increase in the Keys, the use of these herbicides will reduce milfoil, allowing curlyleaf pondweed to increase. The use of herbicides will similarly allow coontail to increase. This is, yet again, an example of the poor design of the CMT.

None of the control measures to be tested, except possibly the outrageously expensive and unrealistic dredging alternative, attempts to address the source of the problem, the excessive nutrients in the system. The revised Draft EIR/EIS should analyze (1) short-term alternatives to protect the Lake, such as barriers, and (2) long-term alternatives that actually address the problem of nutrients, such as restoration.

Response to Comment AQU-4: The potential for curlyleaf pondweed to increase at sites where florpyrauxifen-benzyl or triclopyr are tested is acknowledged and discussed under Issue AQU-2. See responses to comments ALT-G1 and AQU-1. Regarding nutrient source control, see response to comment AWM-56. With regard to restoring the Tahoe Keys, see RES-G1.

Comment AQU-5: Issue AQU-9 under Section 3.1.1.6 on page 3.1.11, states "All of the control methods could result in the release and transport of aquatic weed seed and propagules to areas outside of the Tahoe Keys where aquatic invasive weed species have not yet become established." That would not be the case if control methods such as those the Sierra Club proposed in our scoping letter were included, e.g., a barrier between the Lake and the Keys, and restoring the dead-end portions of the lagoons to marsh habitat. The adherence to "testing" various control treatments does not help protect the Lake in any manner whatsoever, in the long-term or the short- term. It only performs time-wasted steps toward granting TKPOA what it wants, to treat the lagoons with herbicides in perpetuity.

Response to Comment AQU-5: With regard to the issue of installing a barrier between the Lake and the Keys, see response to comment ALT-17.

With regard to restoring the Tahoe Keys, see response to comment RES-G1.
The proposed CMT is a program that will determine the ability of alternative methods to control and manage aquatic weeds infestations, protecting the Lake.

Comment AQU-6: Page 3.2-13 states "There would be a period of months before aquatic macrophytes reestablish themselves in the niches vacated in the lagoons….Therefore, the effect of limited mortality of aquatic macrophyte individuals is expected to be a less than significant impact on macrophyte populations because only a small portion of the lagoons would be affected, and aquatic plant communities are expected to recover in these areas." No supporting data or studies are referenced. Contrary to this unsupported assertion, Jones et al (2012), who examined the response of native aquatic macrophyte communities to spring herbicide treatments of curlyleaf pondweed (*Potamogeton crispus*) found that "curlyleaf persisted at moderate to high frequencies over the 4 years, and no consistent changes in native macrophyte frequency of occurrence were seen." Also, the statement that it would be only a period of months before the macrophytes come back is an admission that one herbicide treatment will not be an effective long-term solution.

Response to Comment AQU-6: Jones et al. 2012 reported "Multiple years of treatment may be needed to see significant increases in overall native macrophyte abundance because significant changes in abundance were not observed within 4 years of treatment; however, consecutive early season, lakewide endothall treatments of curlyleaf pondweed can control curlyleaf pondweed without substantial harm to native macrophytes." Further, the authors state that "Throughout our study, lakewide native macrophyte species richness (Table 5) and the number of species per point (Table 6) did not change significantly in most treated or untreated lakes. This indicates that repeated early season endothall treatments generally did not result in an overall loss of the number of native macrophyte species or decreased diversity of the native plant community in treated lakes." Narrative on page 3.2-13 does not assert that the native community will immediately dominate the plant community following treatment. One-time herbicide testing as part of the CMT is not intended alone to be an "effective long-term solution". The test is designed to see how follow-up Group B methods can be

used to control aquatic weeds after a one-time herbicide application or other Group A treatments.

Comment AQU-7: Page 3.3.5-8 refers to a 63-fold increase in biovolume of aquatic weeds harvested from the lagoons between 1984 and 2019. Clearly, "[more than] two decades of mechanical harvesting have not controlled the spread of aquatic weeds." However, the harvesters cut the weeds several feet below the surface, creating very large numbers of weed fragments. Not all of these fragments are removed from the water, and the fragments that are not removed are spread by boats throughout the lagoons and into the Lake, where they may lodge in sediment and begin to grow. The harvesting is contributing to the spread of aquatic weeds in the Keys and around the Lake. Harvesting will continue on the regular schedule during the CMT. Harvesting the experimental sites will invalidate the comparison of control methods, and all of the harvesting will continue to contribute to the spread of the aquatic weed infestation. See also Master Response AWM-G1.

Response to Comment AQU-7: For more information on the management of mechanical harvesting as an approved weed control method under the TKPOA Waste Discharge Requirements, see the Integrated Management Plan. See also response to comment AWM-13, ALT-50, and Master Response AWM-G2.

Comment AQU-8: Issue AQU-1 on page 3.3.5-8 refers to "short-term impact to non-target aquatic macrophytes." Death of the native aquatic plants is not a "short-term impact" - death is permanent. If there are examples elsewhere that demonstrate native aquatic plants being reestablished on an herbicide-treated site instead of non-native plants recolonizing the site, then these studies should have been cited and summarized in the Draft EIR/EIS. This omission must be remedied in a revised Draft EIR/EIS.

Response to Comment AQU-8: The DEIR/DEIS acknowledges that there will be some mortality of non-target aquatic plant species; however, the significance of impacts is evaluated based on the potential for effects on native plant communities rather than protection of individual plants. The CMT is designed to test whether different Group A methods can be used to cause die-back of target species sufficiently that Group B methods are effective at selectively controlling target species and encouraging the reestablishment of desirable native aquatic plants. While endothall and triclopyr have been used extensively in the US to successfully treat Eurasian watermilfoil or curlyleaf pondweed, we have not found published information from other projects that have implemented the CMT's two-phase approach starting with herbicides or UV light as Group A methods. However, the DEIR/DEIS does include a reference to Skogerboa and Getsingner 2002, a journal article that suggests that with controlling the application rate to below the label rate you could be effective in controlling Eurasian watermilfoil and curlyleaf pondweed, and some native plants have a better recovery than non-native plants. Pre-treatment macrophyte surveys will be used to adjust treatment area boundaries as needed to focus on target species and avoid non-target plant species. Further, the CMT would apply herbicides early in the growing season when, based on water temperature, curlyleaf pondweed is likely to be present but many native species will not yet be subject to direct exposure. Subsurface structures of aquatic plants are likely to survive Group A treatments, and Group A treatments would focus on target species to provide a competitive advantage for native species. Where mortality of individual plants occurs, adverse impacts to overall non-target plant communities are expected to be short-term and minimal. Therefore, impacts are expected to be less than significant. See also Master Response PP-G1.

Comment AQU-9: Page 3.3.5-9 notes the presence of the following non-target macrophytes (native plants) in the West Lagoon and Lake Tallac: leafy pondweed, nitella (*Nitella* sp., a macroalga), elodea (Elodea canadensis), Richard's pondweed, American pondweed (*Potamogeton nodosus*) and Andean watermilfoil (*Myriophyllum quitense*). Watershield (*Brasenia* schreberi) is also present in Lake Tallac.

The discharge of herbicides, especially endothall, would potentially kill these plants and would also be an immediate violation of the toxicity water quality objective, which is not allowed under antidegradation regulations.

Response to Comment AQU-9: The DEIR/DEIS on pages 3.3.5-8 and 3.3.5-9 indicates using herbicides may directly result in short term impacts to non-target macrophytes. The use of pesticides (aquatic herbicides) is understood to impact water quality within the treatment zone (e.g., not meeting toxicity water quality objective) during the treatment event, and treatment zone impacts will exist in which water quality and beneficial uses are temporarily not protected. Also see master responses WQO-G1 and AA-G1.

Comment AQU-10: Issue AQU-3 on page 3.3.5-9 refers to the competitive exclusion that could increase the growth of curlyleaf pondweed. The increased growth is expected if either triclopyr or florphyrauxifen-benzyl, which selectively control Eurasian watermilfoil, are used. Use of these herbicides would be a violation of the water quality objective for release of biostimulatory substances. Endothall, being a non- selective herbicide, will kill native aquatic plants, thereby also violating the toxicity water quality objective. Therefore, these herbicides cannot be allowed.

Response to Comment AQU-10: See response to AQU-9.

Comment AQU-11: Issue AQU-7 and 8, starting on page 3.3.5-14, describes the Keys' lagoons as the place in Lake Tahoe where nonnative warmwater fish species primarily occur because of the warmer temperatures of these waters. However, these fishes may be moving elsewhere in the Lake since "research suggests suitable habitat has increased due to warming water temperatures and the expansion of aquatic weed beds (Kamerath et al. 2008, Chandra et al. 2009, Ngai et al. 2013)." Thus, the Keys' lagoons are not only the source of weeds spreading throughout the Lake but are also the source of nonnative predatory fish throughout the Lake. The spreading nonnative predatory fish include Largemouth Bass, which feed on native juvenile Lahontan Lake Tui Chub, a California Species of Special Concern. Even if the weeds were to miraculously disappear, the warm waters of the Keys would be a serious threat to the native fish of the Lake. Therefore, control methods that would combat this threat, such as barriers, and long-term solutions such as restoration of lagoons to marsh need to be brought forward and examined thoroughly. These alternatives, which the Sierra Club requested be included in the analysis in their scoping comments, should have been included in the analysis of alternatives and should be analyzed in a revised Draft EIR/EIS.

Response to Comment AQU-11: The DEIR/DEIS characterization of habitat conditions in the Keys and associated threats to native fish species is consistent with this comment. While nonnative predatory fish have been documented in other locations throughout Lake Tahoe, it is unclear whether the Keys are the source of these populations and/or whether the Keys are a source population that would be a serious threat to the native fish of the Lake as a whole. Regardless, this portion of the comment does not question the analysis or conclusions presented in the DEIR/DEIS. See also response to comment ALT-17 regarding a West Channel barrier and RES-G1 regarding restoration of lagoons to a marsh.

Comment AQU-12: Page 3.3.5-17 concludes that, even though there will be mortality of non-target macrophytes (native aquatic plants), a "less than significant impact to aquatic macrophyte community composition as result of herbicide testing is expected." The conclusion that native plant communities will recover is not substantiated by any references or studies. The less than significant impact cannot be justifiably claimed when water quality objectives in the Basin Plan are violated on the 16.9 acres of lagoons where herbicides are proposed to be used.

Response to Comment AQU-12: See response to AQU-9, and Master Response WQO-G1.

Comment AQU-13: Page 3.3.5-19 states that "LFA has had very limited testing as an aquatic weed control method." This supports the claim that the CMT cannot be granted an exemption from the Basin Plan prohibition, which requires demonstration that non-chemical methods have been thoroughly tested and found to be ineffective before an exemption can be granted.

Response to Comment AQU-13: TKPOA began testing LFA in April 2019 (DEIR/DEIS section 2.3.4). The Basin Plan states the following: "Demonstration that non-chemical measures were evaluated and found inappropriate/ineffective to achieve the project goals." The Proposed Project goal is to test different treatments to determine what will: 1) quickly reduce the AIP biomass, 2) bring infestation to a level that can be managed with non-chemical treatments, 3) improve water quality, 4) improve recreational benefits, 5) and reduce re-infestation. Non-chemical means would be tested with herbicides and also would be combined with herbicides over the course of the test study. 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. To meet the Project's goals the most promising treatments and emerging technologies were selected to be the Group A treatment methods to be tested. See also DEIR/DEIS Section 2.2 for additional information on method selection and alternative developments. See also Master Response ALT-G2.

Comment AQU-14: Issue AQU-5, Effects on the Aquatic Benthic Macroinvertebrate Community, beginning on page 3.3.5-23, states that "USEPA classifies pesticides according to their acute toxicity responses (WDOE undated)." However, the water quality objective in the Basin Plan for toxicity 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." Both acute and chronic toxicity must be examined and that was not done in this Draft EIR/EIS. Therefore, the conclusions drawn, that all of these herbicides "would have no significant acute or chronic impact on fish or freshwater invertebrates" is false.

Response to Comment AQU-14: See DEIR/DEIS Section 3.2 (specifically subsections on Issue EH-3 and Issue EH-4) for evaluations of acute and chronic toxicity. The CMT proposes a one-time use of herbicides, this would not result in a chronic exposure to aquatic life. Also see Master Response WQO-G1.

Comment AQU-15: The conclusion on page 3.3.5-25, that "Implementation of Group A methods would not be expected to result in a substantial change or reduction in the diversity or distribution of the aquatic Benthic Macroinvertebrates (BMI) community and impacts to the aquatic benthic macroinvertebrate community would be less than significant," is false based on the above comments.

Response to Comment AQU-15: See response to AQU-14.

Comment AQU-16: Issue AQU-8, Effects on the Suitability of Habitat for Native or Recreationally Important Game Fish Species, beginning on page 3.3.5-30, states that "the presence of nonnative warm-water fish species in Lake Tahoe and specifically, the Tahoe Keys lagoons, poses a significant threat to native fisheries. "While Largemouth Bass and Bluegill are considered recreational species in many locations, they are not recognized as recreationally important species by CDFW) or Nevada Division of Wildlife." This is another reason why restoration of the lagoons should have been

examined as an action alternative in this Draft EIR/EIS and why the Sierra Club scoping comments requested examination of restoration.

Response to Comment AQU-16: With regard to restoring the Tahoe Keys, see Master Response RES-G1. With regard to barriers see response to comment ALT-17. Also see Master Response ALT-G1.

Comment AQU-17: Issue AQU-1 on page 3.3.5-37, states that mechanical harvesters "contribute to the dispersal of fragments from the target aquatic weeds as well as turions from curlyleaf pondweed." Then why is this practice being continued? This section later states that "TKPOA has implemented measures to substantially reduce the number of fragments released due to harvesting operations, including skimmer boats that capture fragments post-harvesting and boat back-up stations in conjunction with seabins to limit the spread of fragments to greater Lake Tahoe." However, no data are provided to substantiate the claim that these measures "substantially reduce the number of fragments." What is this assertion based on? Installing a second bubble curtain and seabin in the channel between the West Lagoon and Lake Tahoe would provide data on the number of fragments not captured by the existing bubble curtain. Later in the Draft EIR/EIS, under AQU-4, the following statement is provided: "Although TKPOA has implemented several fragment control methods during mechanical harvesting, these methods do not completely contain and remove fragments that can propagate new plants." Therefore, these harvesting practices are not working and, in fact, continue to contribute to the spread of weeds. Yet the Lead Agencies plan to have TKPOA continue harvesting even while other methods are being tested.

Response to Comment AQU-17: Mechanical harvesting continues to be permitted because it protects the designated beneficial use of recreation and limits the uncontrolled weed fragments that would otherwise be spread by boat propellors motoring through the weed beds. For more information on the management of mechanical harvesting as an approved weed control method under the TKPOA Waste Discharge Requirements, see the Integrated Management Plan (https://uploads.strikinglycdn.com/files/8bb0c756-4a2f-4ad4-acd7-e1a11908f42b/IMP%20Update%202018_01-31-2018%20(Complete).pdf). IMP compliance includes annual reports available on TKPOA's website (https://www.keysweedsmanagement.org/resources-1) that document effectiveness of the boat back-up station, fragment collection, and the bubble curtain and sea bins. Altogether, this information indicates these measures accomplish a substantial reduction in fragments that would otherwise exit the lagoons and enter greater Lake Tahoe. This is not inconsistent with the expectation that fragment control efforts are incomplete. See also response to comment AWM-13 and Master Response AWM-G2.

Comment AQU-18: Issue AQU-4, page 3.3.5-39, states that "Potential habitat for colonization in Lake Tahoe has been estimated at as much as 11,000 acres based on bathymetry alone (TRPA 2014), though a number of factors such as wind and sediment type would be strongly limiting (Wittmann et al. 2015)." This is why the Sierra Club requested in our scoping comments that a barrier in the channel between the Keys and the Lake and restoration of the dead-end lagoons be analyzed as alternatives. These requests were denied because "restoration would have substantive impacts to navigation, and to the recreational and aesthetic values underlying the appeal of Tahoe Keys properties" and "restoration does not require testing." A revised Draft EIR/EIS including analyses of barriers and restoration of dead-end lagoons must be prepared.

Response to Comment AQU-18: With regard to the issue of installing a barrier between the Lake and the Keys, see response to comment ALT-17. With regard to restoring the Tahoe Keys, see response to comment RES-G1.

Comment AQU-19: The impact of invasive species in the Great Lakes is a stark examples of the danger of interfering with key ecosystem, especially one as small as Lake Tahoe.

Response to Comment AQU-19: The CMT and alternatives do not propose to introduce any invasive species.

Comment AQU-20: The Purpose & Need notes controlling the spread of nonnative target aquatic weeds; however, the introduction mentions that coontail is a native plant. Would this "undesirable native plant" also be targeted in the CMT? Should this be noted in the Purpose & Need?

Response to Comment AQU-20: Purpose and Need will be edited to clarify that coontail is a target plant.

AQUATIC WEEDS MANAGEMENT

Comment AWM-1: Wetlands provide one of the most important ecosystems for Lake Tahoe. They help naturally filter nutrients before entering the lake. (This helps keep it clear.) Residents/business owners should consider it lucky they even have a boat/home in the keys. Live with the environment and find a natural way to remove the invasive plants. [T]he creation of a well-developed plan to remove the invasive plants using safe methods must be created. Dream big. Stop mitigating and expecting results.

Response to Comment AWM-1: Thank you for your feedback regarding wetlands values and aquatic weeds management.

Comment AWM-4: This is a matter of beauty and dollar bills. Using a cheaper way of weed control (herbicides) will result in a loss of clarity in the lake that will result in a great loss of money for the businesses around the lake that rely on tourist dollars.

Response to Comment AWM-4: No information has been found, nor do any study results suggest, that testing herbicides at sites in the Tahoe Keys lagoons would have any direct or indirect effect on water clarity in Lake Tahoe.

Comment AWM-5: It appears Tahoe Keys (TK) may have created or exacerbated the invasive aquatic weed problems. As long as TK activities continue with negative impacts to Lake Tahoe (landscaping applications of chemicals, boating, etc.), eradication(s) either via herbicide or manual harvesting will not be permanent, and both can have serious collateral damage. Different herbicides and/or harvesting operations may have to be continually conducted, each with its own residual impacts. The top concern, or highest priority, should always be Lake Tahoe's water quality, not residential landscaping or boating quality. In addition to what has been suggested by the Sierra Club Tahoe Area Group, a strict mandatory boat inspection or a complete ban on boats from Tahoe Keys entering the lake (physical barrier) should be considered until the infestation is completely resolved.

Response to Comment AWM-5: Thank you for your input on the history and management of aquatic weeds in the Tahoe Keys. Placing a barrier to isolate the Keys lagoons was discussed in Section 2.7 of the DEIR/DEIS. This option was removed from further analysis as it does not meet some of the project goals and objectives. Also please refer to the response to comment ALT-G1, ALT-17, and AWM-G2.

Comment AWM-8: Why does the plan only include a 75% reduction of weeds? It is just to improve boating or how does that improve the weed issue?

Response to Comment AWM-8: 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. The plan does not only include a 75% reduction of aquatic weeds that applies in evaluating the success of Group A methods, but also includes testing of Group B control methods to achieve further reduction where Group A methods are successful in attaining the 75% threshold. A higher threshold for Group A success (e.g., 90%) may be overly difficult to attain for some methods (e.g., UV light arrays may not be able to access weed beds effectively around obstructions) where there is interest in seeing how they might be successful in combination with Group B follow-up spot treatments. See also Master Response AWM-G1.

Comment AWM-9: Since the Keys lagoons are considered as Tier 3 and require attendant protection (i.e., from invasive species impacts on water quality and native ecosystems), why wouldn't Lahontan and TRPA support the use well-proven and scale-feasible current technologies to manage the invasive plant populations: integrated use of USEPA/Cal EPA approved aquatic herbicides?

Response to Comment AWM-9: The Proposed Project, using Group A methods and supporting tools (Group B methods) was developed through an intensive process of review and evaluation of reasonable and feasible options that could be employed for aquatic weeds control in the Tahoe Keys. The Proposed Project and action alternatives support the testing of scale-feasible current technologies to manage the invasive plant populations. Application of aquatic herbicides are a well proven technology that is proposed for use.

Comment AWM-10: Is the risk of relying solely on un-proven, non-herbicide methods (UV light; bottom barriers) fully vetted? How were these risks quantified?

Response to Comment AWM-10: As described in Section 2.2, the development of project alternatives was preceded by a process of selecting aquatic weed control technologies for testing that were expected to be feasible in the Tahoe Keys, able to meet most project goals and objectives, and have less than significant adverse environmental effects. The DEIR/DEIS presents qualitative and quantitative evaluations of the risks of the Proposed Project, action alternatives, and no action. 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. The DEIR/DEIS acknowledges that there is insufficient information to know whether UV light or LFA will be effective at meeting project goals and objectives for aquatic weed control in the lagoons. Please also see the response ALT-G1.

Comment AWM-11: Why is there not an alternative that uses non chemical methods first, and after monitoring and assessment on meeting success criteria, and only if that criteria is not met, then a test using herbicides is assessed (this would be a new alternative). Could the document as written be used in this if, then manner? Use non chemical method first and only consider the combined chemical/no chemical methods later.

Response to Comment AWM-11: Section 2.2.2 of the DEIR/DEIS describes the selection criteria to screen alternatives for evaluation in the DEIR/DEIS. One of those criteria is similarity with other alternatives. This criterion recognizes that while a representative range of alternatives must be considered, neither CEQA nor TRPA generally require the evaluation of every variation within that range. Some alternatives can be eliminated from consideration because they are sufficiently similar to those that are carried forward (14 CCR §15126.6(a)). The Proposed Project includes both non-chemical and herbicides use but in a different order than that proposed by the commenters. In addition, action Alternative 1, described in Section 2.4, is the use of only nonchemical methods would also encompass a situation where herbicides are tested first. Therefore, this variation of the alternatives does not need to be included and the DEIR/DEIS includes a reasonable range of alternatives. Additionally, testing methods in a similar time period, rather than having a large time period between implementation of group methods will provide valuable information in future selection of technologies and limit speculation that efficacy may be due to different climate conditions in which the technology was tested in. Please also see the response ALT-G1 and ALT-G2.

Comment AWM-12: Are the results and success of non-chemical methods used in the Tahoe Keys summarized in the EIR?

Response to Comment AWM-12: Please review to Chapter 2, specifically sections 2.2.3, 2.2.4, 2.3.3, and 2.3.4, of the DEIR/DEIS for information on the nonchemical methods proposed to be used

in the Proposed Project.

Comment AWM-13: Test sites will be mowed when and as needed on established schedules. Both the treatments and mowing will reduce the biovolumes of weeds. Reductions in biovolumes due to treatments are the essential data for comparing treatments. How can these reductions in biovolume possibly be measured accurately if sites are mowed?

Response to Comment AWM-13: If mechanical harvesting is needed at aquatic herbicide test sites in the summer after treatment in the late spring, then it will be clear that the herbicide product was not effective in meeting goals to reduce weed biovolume. A UV light test site would also fail the test if aquatic weeds after treatment grew to the height that would require harvesting to maintain navigation. If harvesting became necessary within LFA test sites during multi-year testing, the biovolume of aquatic weeds removed would be estimated to allow for comparing treatments. See also Master Response AWM-G2.

Comment AWM-14: Herbicide test sites will be aerated after treatment to test potential control benefits; UV light sites will not be aerated. Why won't UV light sites be aerated?

Response to Comment AWM-14: Use of aeration to reduce potential impacts from the Proposed Project is described in WQ5b Aeration in Section 3.3.4.1, page 3.3.4-36 for herbicides, page 3.3.4-40 for UV-C, and page 3.3.4-44 for LFA. As described in the DEIR/DEIS, if real-time monitoring in herbicide and UV-C treatment areas indicated that DO was not meeting permit requirements, an aeration system would be deployed there to aerate the water during the period of plant decay and ensure that DO impacts were not significant.

Comment AWM-15: Coontail is a floating weed. UV light treatment of coontail in the Keys is asserted to be infeasible. UV light treatment of coontail at a Lake Tahoe marina reduced coontail significantly. Why is UV light treatment of coontail in the Keys not feasible?

Response to Comment AWM-15: The UV light pilot project at Lakeside Marina and Beach targeted the performance of treating rooted macrophytes (i.e., Eurasian watermilfoil and curlyleaf pondweed) but also monitored impacts to coontail and other aquatic plants. UV light is proposed as a Group A treatment method due to the success shown in the Lakeside Marina study and early testing in the Keys lagoons. UV light would not be used in areas where coontail is the dominant or co-dominant species as the system was designed for and likely to have greater success at treating rooted macrophytes. Other Group A methods would be used in areas where coontail is a dominant species.

Comment AWM-16: The bubble curtain is not currently working. The compressor blew out and there's one on order. It was mentioned earlier that this is becoming a lake problem. It's a collaborative and it seems that we need the collaborative to help maintain these tests, including the laminar aeration tests. It turns out that the bubble curtain was not running throughout the winter. CLEAN-FLO installed the system and has been clear that these tests have been very successful at not just tests, but this system has been used for ten years successfully to eliminate nutrients, but it has to be ran 24/7 year round. The system was shut down at the Tahoe Keys for the winter and was supposed to be turned on in April but wasn't because of the compressor. It had to be ran all year long, so it was as successful as Ski run Marina where it eliminated over 20 inches of nutrients. It does this by increasing the natural enzymes which bring the nutrients up and then the microbes digest the nutrients and then eliminates the nutrients. That resolves the source of the problem that has been pointed out over and over again. Mr. Good said they wanted to use aeration, if you were to use the testing of aquatic herbicides anyway, then shouldn't it be installed now and start trying to reduce the

source of the problems which are the nutrients at the base. The system eliminated four feet of muck from Lake St. Catherine in Vermont in 2014 after four years of testing. It takes time but has to be done properly. We need large scale non-chemical methods to be running permanently and a collaborative that does these tests the way that they need to be done to show that they work.

Bubble curtain is not working. This is a lakewide problem and need collaboration to maintain tests. LFA is successful when run 24/7/365. The system was not turned on in April when weeds begin to grow. Eliminated muck/nutrients at Ski Run. Install LFA now to start reducing nutrients.

Response to Comment AWM-16: The LFA test has been operating continuously since May 2019 except for 27 days in May 2020 when a compressor was replaced. LFA is proposed to be evaluated over three years (or five years in the case of test site #26). This technology needs to be tested further to see how it will perform in the lagoons over multiple years of operation, as planned under the CMT or Action Alternative 1. Information from the proposed testing would be useful in developing long-term aquatic weed control strategies for the Tahoe Keys. Work is being completed to repair and improve the West Channel bubble curtain, including replacing a compressor, which is expected to provide a more reliable system.

Comment AWM-17: This is a great opportunity for us to test the larger scale non-chemical methods to see how well those can work. Also, there is a plan B option of the diver assisted suction that should be checked on a larger scale that's being used successfully in quite a few places. It removes that plants physically with the roots and are reducing the biomass of the plants. If there aren't good results after they run quality controlled consistent tests over a couple of seasons, then let's have this discussion again. Alternative A,1 has been identified as the environmentally superior alternative that they would support. They are talking about how they would support Alternative Action two, dredging and replacing substrates is one way to address the growth conditions of the weeds. However, it is an artificial enhancement, it may promote more weed growth and the restoration wetlands ecosystems services may be more applicable in water quality mitigation than a riffraff substrate replacement. They appreciated the shift in development from past years, but this is now about enhancing the water quality in the Tahoe Keys section of Lake Tahoe.

Diver assisted suction should be considered a larger-scale method. AA2 is an artificial intervention and may promote later weed growth. Wetlands creation may be more suitable.

Response to Comment AWM-17: See response to comment ALT-33. Also see responses ALT-G1, ALT-G2, and RES-G1.

Comment AWM-18: The Barrier. The documents' Title has changed from a plain "TEST" to a "Control Methods Test". I was unable to determine from the Draft EIS/EIR what the difference was or is. However, the Sierra Club's request for a solid barrier to protect the lake from the lagoons, in our first set of NOP comments, the three follow-up public comment meetings, and in the first set of comments after three days of examination of the 500 pages of documents, that the Sierra Club's request is more valid than ever.

Left on the cutting room floor is the test of the barrier solution. Cavalierly described as "not a test" by several staff members, the Club reminds you that a Test "is a deliberate action or experiment to find out how well something works." [Colllin's Dictionary].
And a barrier offers many options for testing. There is the main material that could be used, from plastics to rocks to concrete, to cement, to sheet metal to corrugated metal, for the design possibilities at or near the shoreline, or further up the channel connected to the existing sheet metal piling on one side to piled up rocks on the other. In addition, there are new concepts of wave flows, of flooding potential, of pumping from the channel to the Tallac lagoon. And that's just the easy ideas. There are also tests needed to determine the given life of various styles and materials for

constructing a barrier. Given the amount of money spent on concepts to avoid barriers, it is clearly possible and feasible to test and devise a suitable barrier to protect Lake Tahoe from the scourge of the invasive weeds.

The Tahoe Area Sierra Club is again proposing a feasible and rational Barrier to protect Lake Tahoe.

If 75% are removed, the remaining 25% will continue to grow. Need to close off the Keys from the Lake (barrier).

Response to Comment AWM-18: With regard to the barrier issue, please refer to the response to comment ALT-17. On the 75% reduction goal see response to ALT-19 and AWM-G1.

Comment AWM-19: Place a barrier on the Keys until the weeds are removed.

Response to Comment AWM-19: With regard to the barrier issue, please refer to the response to comment ALT-17.

Comment AWM-20: Draft EIR/EIS is comprehensive, meets full disclosure, and does not favor any particular management method. 75% reduction in biomass is not sufficient. Need to fully eliminate weeds. Take time to test properly to determine results before implementing herbicides. Start with non-chemical methods.

Response to Comment AWM-20: Regarding the 75% reduction criteria, see Master Responses AWM-G1,ALT-G1, ALT-G2, and HER-G1.

Comment AWM-21: Where we need to go sooner than later is a long term management plan for the largest infestation at Lake Tahoe. Around 2013, the League identified that to address aquatic invasive species, the Tahoe Keys would need to be addressed. They were fortunate to have formed a very strong partnership with the Tahoe Keys Property Owners Association and many others at that time to start working through the process. It started with him presenting to the Keys for the first time ever and then it moved on to several good partnerships with citizen science programs and the League committing funding and technical assistance to solve this issue. One of those items was the bubble curtain protecting the west channel. What they've found through all those iterations of working groups and collaborative processes, is that more tools are needed in the tool box. Lake Tahoe doesn't have another seven years to figure out what to do to address this infestation. The Lake remains at risk until there's something done in the Tahoe Keys despite all the efforts to date. Testing as many methods in isolation or combination is one great way to do it.

Aquatic weeds infestation in Keys is primary issue for Lake Tahoe and must be addressed first there. Test program is ambitious but achievable. Draft EIR/EIS is well-written. Lake remains at risk until we do something substantive in Keys.

Response to Comment AWM-21: The outcomes of the proposed test project will inform the development of a long-term management plan and subsequent environmental review for aquatic weeds control in the Tahoe Keys. Thank you for your supportive comments about this test program and DEIR/DEIS. Please see response to comment URG-1 regarding the urgency of the project.

Comment AWM-22: We know that eradication is not possible, rather it's a long term management strategy. It's important that we take the time now to evaluate the methods to determine what's possible and achievable with the non-chemical methods…This draft environmental document could be used to do a longer term test and evaluation program where the non-chemical methods are tested first and done very well to see if we can meet the 75%. If not, then make a decision to try herbicides. Don't tie a decision to test herbicides ahead of knowing what's possible with all these

creative ideas that are explored in the draft document. Decisions and permitting can be done conditionally and can be done over a series of decisions.

Long-term management of weeds will go on forever so take time now to determine what is possible and achievable with non-chemical methods.

Response to Comment AWM-22: Thank you for your comment; the project is intended to take the time to evaluate methods, as this comment requests. The outcomes of this project will inform a long-term management plan for aquatic weeds control in the Tahoe Keys. The decision regarding which methods to select going forward will be made based on tests of all methods, including non-chemical methods, before committing to any future management plan. As described in Sections 2.3.3 and 2.3.4, testing of non-herbicide methods in the Keys lagoons has already begun. Also see response ALT-G1.

Comment AWM-23: Separate from the weed test control program, nutrient inputs into the Tahoe Keys from residential and landscape fertilizer use and vehicular (auto and boat) exhaust emissions contribute to the eutrophication and weed problem in the Keys and Lake Tahoe in general. TRPA/LWB should continue and expand existing efforts limiting nutrient inputs that aggravate aquatic weed proliferation in the Tahoe Keys lagoons and will continue to hinder weed control efforts.

Response to Comment AWM-23: The TKPOA implements a nonpoint source water quality management plan to reduce pollutant loading from land-based sources (TKPOA 2018c, TKPOA 2020b). The DEIR/DEIS Section 2.6.1 describes this nonpoint source management plan. Also see response to comment AWM-56.

Comment AWM-24: Coontail, considered a 'nuisance native', is non-rooting and free floating. We suggest more consideration be directed towards aggressive harvesting/mechanical removal of this native plant. Mechanical removal would directly reduce nutrient loading to the water column by removing the plants entirely.

Response to Comment AWM-24: Mechanical removal of coontail has been a management activity undertaken by the TKPOA as part of the mechanical harvesting program since the 1980s. Coontail rapidly reproduces and grows during the summer months and mechanical harvesting efforts have not been able to keep up. The CMT investigates other methods to control coontail in part because mechanical harvesting has not been successful in reducing its proliferation in the lagoons.

Comment AWM-25: There has been a positive shift in plan development from years past. This plan now recognizing the impact of nutrient cycling and a need for water quality mitigation of existing conditions, with a goal to oxidize nutrients in the water column and avoid potential algae blooms. Breaking the nutrient loading cycle is a key strategy in controlling plant growth, and we appreciate the in-depth study done to analyze and rank loading sources. The research identified water column loading from the plants (during die-off) as the primary source of water borne nutrients; with storm-water designated a secondary source

Response to Comment AWM-25: To clarify, aeration was included as a mitigation measure to (1) address potential oxygen depletion and low DO conditions during plant decomposition following dieback, and (2) increase water circulation and make conditions less favorable for HABs. The purpose of the aeration systems deployed during plant decomposition at herbicide or UV light test sites was not to oxidize nutrients in the water column.

Comment AWM-26: Figure 1-2 notes areas in Lake Tahoe that had infestations that were previously treated; an explanation and description of what methods were used elsewhere in Lake Tahoe would be helpful to include in the EIR/EIS, as it seems the aquatic weeds were successfully treated in these areas. Could this analysis help provide insight as to why TKPOA believe non-herbicide methods have been unsuccessful in the Keys?

Response to Comment AWM-26: The Lake Tahoe Environmental Improvement Program maintains an EIP Project Tracker that includes information on the aquatic invasive weed removal projects identified on Figure 1-2 (https://eip.laketahoeinfo.org/). The size and intensity of the aquatic weed infestation in the Tahoe Keys presents a challenge of scale that limits the applicability of experiences with other Lake Tahoe projects to the lagoons. Chapter 1 of the DEIR/DEIS provides introduction and background on the history of efforts to control weeds and why the CMT is needed to test an expanded range of methods going beyond those used in the past.

Comment AWM-28: Clear Lake has seen an exponential rise in cyanobacterial growth in the past years due to agricultural runoff from surrounding areas. The nutrient-rich herbicides and pesticides in combination with warm, calm, shallows waters have allowed cyanobacterial growth creating a numbers of water quality problem. Big Bear Lake has been implementing herbicide treatment since the early 2000s. After using aquatic herbicides annually, weeds persist. Meaning that once the experiment in the Tahoe Keys is final, the herbicide treatment management plan will move forward. Continuation of treatments will be needed, increasing the concentration of broken-down chemicals in the lake. Due to the warm conditions and nutrient abundant environment of the Tahoe Keys, these chemicals can favor weed and cyanobacterial algae growth.

Response to Comment AWM-28: The proposed CMT would only permit a one-time test of aquatic herbicides in limited areas of the West Lagoon and Lake Tallac, followed by testing Group B methods to see if they can be effective in maintaining test sites in subsequent years and preventing regrowth of aquatic weed beds. Using information from the CMT, a long-term integrated management plan will need to be proposed for full-scale implementation in the Tahoe Keys lagoons. Any long-term plan proposing further use of aquatic herbicides would require its own environmental evaluations and permitting. See also Master Response HER-G1.

Comment AWM-29: Nutrient inputs into the Tahoe Keys, separate from the weed test control program, from residential and landscape fertilizer use and vehicular (auto and boat) exhaust emissions contribute to the eutrophication and weed problem in the Keys and Lake Tahoe in general. We also recommend that TRPA/LWB continue and expand existing efforts limiting nutrient inputs that aggravate aquatic weed proliferation in the Tahoe Keys lagoons and will continue to hinder weed control efforts.

Response to Comment AWM-29: The TKPOA implements a nonpoint source water quality management plan to reduce pollutant loading from land-based sources (TKPOA 2018c, TKPOA 2020b). Also see response to comment AWM-56.

Comment AWM-30: Details of the various control alternatives to be considered for testing are also well explained, except the final location of the anticipated test plot locations may be adjusted based on the results of spring macrophyte surveys to ensure that target weed infestations are dominant in treatment areas.

Response to Comment AWM-30: The principal advantages of finalizing the assignment of treatments and boundaries of test sites until after spring macrophyte surveys are to (a) ensure that test sites are selected that represent the most dense early-season aquatic weed growth present in

the lagoons, (b) match the specific test herbicides to sites where they are likely to be effective for the mix of target species present, (c) provide three replicate sites for each control method or herbicide product tested, and (d) minimize impacts to non-target macrophyte communities.

Comment AWM-31: Testing all non-chemical methods adequately, with the proper amount of time and large areas (at least 10% the size of the over 170 acres of the Keys) needs to be done before resorting to any testing of aquatic herbicides that are proven do not work as a one-time solution when the major sources of nutrients have not been eliminated and resolved.

Response to Comment AWM-31: The DEIR/DEIS acknowledges than none of the Group A methods are likely to be completely successful in a one-time application and that is why Group B methods will be needed for ongoing management. Although aquatic herbicides have been demonstrated to be effective at reducing aquatic plant populations in many regions, efficacy in the unique environment of the Tahoe Keys lagoons has not been demonstrated. Further, the CMT proposes to test the efficacy of Group B methods in maintaining the reductions in target aquatic weeds following one-time herbicide applications, an approach that has not been common in addressing aquatic invasive weeds at other locations. In addition to testing non-chemical Group A methods at 17.8 acres of test sites, the CMT proposes to test herbicides so that more time is not lost in evaluating the efficacy of all Group A methods that may be able to achieve project objectives for aquatic weed control. LFA would be tested for three years (and five years where Site 26 would continue the LFA test started in 2019), and an option is included for a second year of treatments at UV light test sites. The CMT would provide information on whether Group B spot treatments can be successful in maintaining and improving the aquatic weed reduction accomplished by Group A methods, including a one-time application of herbicides. Also see Master Response ALT-G2.

Comment AWM-32: The underlying problem of nutrient flow into the Tahoe Keys from residential and landscape fertilizer use and vehicular (auto and boat) exhaust emissions contributes to the weed problem in the Keys and Lake Tahoe in general. I strongly urge TRPA/LWB to expand efforts limiting nutrient flowing into Lake Tahoe. Humans created this problem and without severe limitation, aggravate aquatic weed proliferation in the Tahoe Keys lagoons continue unabated and will continue to hinder weed control efforts. My hope is that local cooperation and non-herbicidal methods can and will achieve healthy waters again.

Response to Comment AWM-32: The TKPOA implements a nonpoint source water quality management plan to reduce pollutant loading from land-based sources (TKPOA 2018c, TKPOA 2020b). Also see response to comment AWM-56.

Comment AWM-33a: There is no reason to pilot herbicide use at this time as many references in the draft EIR/EIS indicate that herbicides are effective in reducing aquatic plant populations. There is no justifiable reason to allow a herbicide pilot program to proceed at this time. If, in the future, it can be demonstrated that no reasonable means of reducing the aquatic plant population other than herbicide use exists, then pilot projects to determine the optimum herbicide type, application levels and mitigation measures might be warranted.

The draft EIR/EIS sets forth a project success standard of 75% reduction of biovolumes of aquatic plants. The agencies should not accept this standard for a number of reasons and all reference to it should be removed from the draft EIR/EIS. First, it appears this standard was established by TKPOA as being equivalent to what it believes it could achieve with an initial herbicide application. Precise numerical equivalency should not be a standard to judge feasibility of various technologies in relation to a decision to allow herbicide use, as put forward by TKPOA. Rather, one should consider the effectiveness of various technologies over time and in combination to achieve the desired result

of significantly reducing the biovolumes to manageable levels. Just because one method achieves a desired result in a few weeks and others take longer to achieve the same result should not be the only determining factor. Therefore, TKOA must implement Group B methods at all sites, regardless of initial outcomes, in order to get a complete analysis of what is possible employing numerous technologies over time. Second, the biovolumes remaining after treatment will vary depending on the starting point. As an example, if one starts with 100 units and achieves a 75% reduction, there will be 25 units remaining. However, if one starts with 75 units and achieves a 67% reduction, there will also be 25 units remaining. It is the remaining amount of aquatic plants that will be subject to ongoing maintenance. In this example, a lower percent reduction will achieve the same biovolume result. From an ongoing management perspective, the same biovolume would exist so what is so magic about the 75% standard put forward by TKPOA, It would seem that this standard is being set in order to diminish the value of other technologies in an effort to prove that herbicide use it the only way to meet the goal of significant aquatic plant reduction in order to get to a level that could be maintained. I applaud TKPOA for making progress in aquatic plant management on a number of fronts. It has successfully passed an assessment of its members to fund many of these efforts. It has significantly improved its harvesting methods and equipment to limit the release of plant fragments. It has dedicated very capable staff to oversee this aquatic plant management effort. However, there are a few items that need to be highlighted:

1. It is my understanding that the TKPOA assessment included specific language that prevented the expenditure of certain funds if herbicide use was not permitted. TKPOA should confirm or refute this belief. The agencies should not let the threat of no project cloud its decision as to whether or not to allow herbicide use at this stage in the project.
2. There does not appear to be a commitment to continue these efforts in the pilot plots after the initial three years if positive results are achieved. Will TKPOA just allow these areas to return to pre-project conditions, which will happen due to the proximity of aquatic plants in untreated areas adjacent to the pilot plots? It may take a year of more after the results of the pilot projects are developed before a more full-scale project is implemented
3. The premise for this entire project is that if TKPOA is allowed to use a technology to significantly reduce aquatic plant biovolumes, it will maintain these levels. However, there does not appear to be an evaluation of what such an effort would cost nor any financial commitment for this effort. This is different from the cost of implementation of a project to reduce aquatic plant levels to those that can be managed effectively. This long term commitment should be fully evaluated and be made a condition of any approval as it should be considered an essential project element. TKPOA should be required to demonstrate its ability to perform this perpetual maintenance effort
4. The no project alternative appears to preclude the expanded use of LFA and UV light over pre-project conditions or use of any other technology. The draft EIR/EIS makes reference to an existing LFA project and limited experimentation in 2019 and 202A using UV light.

Response to Comment AWM-33a: Although aquatic herbicides have been demonstrated to be effective at reducing aquatic plant populations in many regions, efficacy in the unique environment of the Tahoe Keys lagoons has not been demonstrated. Further, the CMT proposes to test the efficacy of Group B methods in maintaining the reductions in target aquatic weeds following one-time herbicide applications, an approach that has not been common in addressing aquatic invasive weeds at other locations. See Master Response AWM-G1 regarding 75% threshold. The CMT description in Chapter 2 explains how the different Group A methods will be tested over different time periods, with the potential for a second year of UV light treatments to achieve the 75% threshold, and a full three years for LFA testing (and a total of 5 years at the existing 6-acre LFA test site in the West Lagoon). The CMT and Action Alternatives do not include testing Group B methods at sites that fail to achieve the 75% threshold, as greater than 25% of areas would exceed the expected reasonable capacity for effective spot treatments. See also Master Response HER-G1.

Comment AWM-33b: Back in the 1980s the Tahoe Keys approach to the weeds was that it was something we could manage. After millions spent on harvesting, bottom barriers, bubble curtains, sea bins, diffusers etc. we are now of 95% impacted with no relief in sight. This is the future of Lake Tahoe if we don't take steps to manage the weed problem now. I'm all for studying methods side by side to determine what will be most effective in removing the weeds and still be affordable.

Response to Comment AWM-33b: Thank you for your comment regarding the history of aquatic weeds management and the need for the test program.

Comment AWM-34: I really believe that testing non-chemical methods is a smart way to go and I would be very interested in the results. This testing could provide effective alternatives to herbicide applications for use in other lakes. What I want to know is this, once the invasive aquatic plants have been killed off, will they be removed via dredging? It may be a bit early in the process, but I was curious and wanted to know how the weedy debris and sediment was going to be disposed of? Thank you for this opportunity to provide input.

Response to Comment AWM-34: Only suction dredging proposed in Action Alternative 2 or diver assisted suction/hand removal as a Group B spot treatment would remove aquatic plants from the lagoons. Other methods would leave the plants to decompose at test sites, similar to what happens each fall throughout the lagoons when the plants die back at the end of the growing season. The schedule calls for aquatic weeds to be treated with herbicides or UV light early in the growing season when the plant biomass is minimal and water quality impacts from plant decomposition would also be minimized. See also Master Response ALT-G2.

Comment AWM-35: These comments are in response to the proposed Lake-wide Control of Aquatic Invasive Plants (AIP) Project to achieve the goals and targets for aquatic invasive plant control described in the Lake Tahoe Action Agenda. These goals include a) limiting the spread of existing AIP I the region by minimizing threats to native species and extirpating existing AIP populations when possible and b) abating the harmful ecological, economic, social, and public impacts of AIP. As described in the project document, any impacts requiring mitigation would be temporary and associated with active control implementation. The appropriate mitigation measures have been described in Table S-1 in the document.

Response to Comment AWM-35: Thank you for your comment regarding the nature of the Proposed Project, including mitigation.

Comment AWM-36: The Tahoe Regional Planning Agency and the Lahontan Regional Water Quality Control Board are moving forward with a proposal by the Tahoe Keys Property Owners Association to treat the Keys' invasive weeds with aquatic herbicides. I am concerned that non-chemical methods have not been fully tested and shown ineffective as required by the Water Board before resorting to herbicides. Chemical herbicides have never been allowed in Lake Tahoe before because the Environmental Protection Agency classifies Tahoe as a Tier-3 Outstanding Natural Resource Water that cannot be degraded. I am concerned that continued use of dangerous chemicals will be necessary in perpetuity to keep the weeds under control, all for a treatment that will never work. There is no basis for asserting the herbicide use during this "test" would be a one-time event. Every lake in the country where herbicides have been used have had to continue their use once started to keep the invasive weeds down to a manageable level.

Response to Comment AWM-36: This project proposes only a one-time test of aquatic herbicides, followed by implementation of Group B methods to evaluate their effectiveness in maintaining reductions in aquatic weed infestations. In order to compare the effectiveness of the different AIP

treatment methodologies with minimal variability in testing conditions, all AIP treatment methodologies being considered for future use should 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. Conditions of permit approval would limit the CMT to a one-time use of herbicides. Any future proposed use of aquatic herbicides would require a separate regulatory approval process. See also Master Response to ALT-G2 regarding requirements for evaluating non-chemical methods. See also Master Response HER-G1.

Comment AWM-37: There is nutrient buildup from heavily fertilized lawns in the Tahoe Keys, the numerous stormwater outfalls into the lagoons, and nutrient recycling from dead and dying weeds. Herbicides or not, weeds will continue to flourish under these conditions until the conditions supporting the infestations are removed. In the short term, the Lead Agencies should consider protecting Lake Tahoe by installing a physical barrier, adjustable for snowmelt and stormwater events, between the Keys and the Lake. The barrier would remain in place until the weed infestation is completely removed. The Proposed Project does not fully explore the full range of options, only aquatic herbicides and a few non-chemical methods. If we want to rid Lake Tahoe of weeds, we must expand our options. Although the Proposed Project emphasizes reducing the height of invasive weeds by about 3 feet from the surface to provide weed-free navigation for boat travel, the Ski Run Marina experiment with Laminate Flow Aeration appears to be effective in creating decomposition of organic matter which plants use for food. However, combining Aeration with herbicides suggests that Laminar Flow Aeration alone is insufficient to remove weeds. Bottom Barrier canal-bed blankets barriers to sunlight are effective for plants underneath them. Plants continued to grow outside the barrier edges and in sediment that was disturbed by passing boats and settled on top of the barriers. Pollution-tolerant organisms accumulate in low-flow areas. Lagoons that are situated closer to channel currents have some resistance to stagnation and may at times attract pollution-intolerant species that drift over from the marsh, but they lack the pollution-filtering function and hydrology of the wetlands. Returning the Keys lagoons to a healthy functioning wetland would solve the weed problem (by eliminating the weed's habitat, as even admitted to in the DEIS/DEIR). It would eliminate the need for herbicides. The wetland would filter nutrients and pollution from Tahoe, immediately improving the water quality and clarity of our cherished Lake Tahoe. Done well, it could enhance the Tahoe Basin's health, beauty, and quality of life, while preserving property values.

Response to Comment AWM-37: While mechanical harvesting is designed to reduce the height of aquatic weeds to protect navigation uses, the weed control methods proposed for testing in the CMT and Action Alternatives would be designed to kill the entire green parts of plants down to the bottom sediments. The Ski Run Marina pilot project provided some encouraging results that contributed to including LFA as a Group A aquatic weed control method for further testing under the CMT or Action Alternative 1. Aeration systems were also included in the CMT as a mitigation measure that could be used to assist with aerobic microbial degradation of herbicides and to offset oxygen depletion that could occur during the decomposition of aquatic weeds following treatments if real-time monitoring indicates permit limits for DO would not be met. With regard to installing a physical barrier between the Keys and the Lake please refer to the response to comment ALT-17. With regard to restoring the Tahoe Keys, see master Response RES-G1. Also see Master Response ALT-G1.

Comment AWM-38: 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. As the DEIR/S 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 full-scale, long-term aquatic weeds control project 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. As the DEIR/S 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 full-scale, long-term aquatic weeds control project in the Tahoe Keys lagoons. Control, management, and monitoring of AIS (including aquatic weeds) is a high priority for the League, and we look forward to continuing our work with all partners to assist with ongoing monitoring efforts throughout and following the Project.

The current control methods are limited to mechanical harvesting and sporadically installing bottom barriers – both of which have been proven ineffective for an infestation of this scale and complexity. As the 2018 TKPOA application states, cutting and harvesting is a method for maintaining navigable waterways and not a control method compatible with the biomass reduction goals of the Project. Additionally, this method results in significant plant fragmentation which accelerates aquatic weed spread. The application also reports that bottom barriers – the installation of mats – would be needed for three to four continuous seasons to successfully reduce plant biomass. This is cost-prohibitive at a large scale and technically infeasible in many parts of the Tahoe Keys lagoons, where there are rocky areas and horizontal and vertical obstructions.

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.

Current tools are not sufficient. There have been limited preliminary tests of newer 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 right combination for eventual, large-scale and long-term treatment.

Response to Comment AWM-38: Thank you for your comment summarizing the background for the project.

Comment AWM-39: Why are weed harvesters being used in the test area? Their use would complicate comparison of test plots and their efficacies. How will the effects/benefits of the test plots of difference methods be able to be discerned separate from the effects of harvesting?

Response to Comment AWM-39: Mechanical harvesting is permitted as part of the Integrated Management Plan for aquatic weed management under the Waste Discharge Requirements issued to TKPOA under Order R6T-2014-0059 (see Section 1.1.3.2). Mechanical harvesting continues to be permitted because it protects the designated beneficial use of recreation and limits the uncontrolled weed fragments that would otherwise be spread by boat propellors motoring through the weed beds. Under the IMP improvements have been made in the use of harvesting equipment and fragment collection. See response to comment AWM-13 regarding mechanical harvesting and monitoring efficacy of treatment method tests. See also Master Response AWM-G2.

Comment AWM-40: Page 3.2.16 states "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." What concentrations of Rhodamine

would be used? This information should have been provided. Depending upon the concentrations of Rhodamine, alterations in color of the water may occur. These impacts can cause nuisance in a location that is known for its exquisite color. Potential impacts of color and also potential impacts of toxicity must be identified. Appropriate mitigation might include a limit on the volume used to ensure color or other toxic impacts do not occur.

Response to Comment AWM-40: The dye would not be visible at field concentrations that generally range from 1 to 10 parts per billion (ppb), and a fluorometer is used to detect the dye. Two previous dye studies have been permitted in the Tahoe Keys using Rhodamine WT dye, and those studies did not result in a change in water color. The NPDES permit sets receiving water limits for rhodamine dye at 10 micrograms per liter (equivalent to 10 ppb).

Comment AWM-41: Beginning page 2-9, the draft EIR/EIS identifies the dynamic and varied nature (the heterogeneity) of the Tahoe Keys lagoons and then proposes three test plots for each method in order to be representative of the various different areas of the lagoons. The table lists the test plots, but no information is provided describing how and whether each test plot meets a particular description. Section 2.3.2 describes how a survey will be completed at the beginning of Year 1 prior to starting tests to assess areas for plant growth and tackle areas with highest plant growth and potentially adjust test plot area boundaries without increasing overall testing areas. This is not acceptable because choices made in the field may adversely impact the test results and how different methods will compare to one another. In order to compare, for example, a UV test plot to an herbicide test plot, you would want to compare test plots of similar conditions. The draft EIR/EIS does not provide sufficient information or description of each test plot area to determine whether there is an appropriate number of test plots and whether they cover similar characteristics prior to testing. Some of these characteristics include water temperature, existing plant growth or biovolume or biomass, sediment characteristics, depth, and other substrate or structures. It also seems that to adequately evaluate efficacy and to compare between control methods amongst comparable sites and conditions, a greater number of test plots are needed. What type of analysis was performed to decide the appropriate number of test plots?

Response to Comment AWM-41: It would not be possible to provide three replicate test sites of at least one acre that would encompass all of the combinations of factors (such as water depth, water circulation, physical features, and water quality characteristics), so there is no expectation that monitoring results will provide definitive isolation of each variable. See comment response to AWM-13 for an explanation of how mechanical harvesting during the CMT will be accounted for in evaluating success. It is further acknowledged that three is a minimum number of replicates that will limit the findings of significant differences between test sites, particularly given the large number of variables that could influence the efficacy of different weed control methods. Increasing even from three to four replicates would not be possible without crowding test sites closer together or reducing the size of test plots, either of which could compromise the validity of tests, so the number of replicate sites was based on space limitations. These limitations prevent an ideal study design, but the CMT would still produce important information on what methods worked or did not work in the lagoons. See also Master Responses AWM-G1 and AWM-G2.

Comment AWM-42: The application of herbicides would result in the poisoning of Lake Tahoe, either as a test project or as a regular application. It is unnecessary to use toxic herbicides when you have effective nontoxic solutions already in place. The Laminar Flow Aeration (LFA), UV light and the elimination of nutrient sources will solve the weed and cyanobacteria problems if given enough time to do so. The nontoxic solutions will be so much more effective in solving decades of invasive weed infestations than to dump herbicides into lagoons full of fertilizer, Round Up and cyanobacteria. Turning to herbicides to solve weed problems so that boat owners can have access to Lake Tahoe is

downright foolish and bad environmental policy.

Response to Comment AWM-42: Tests of herbicides would be conducted behind containing turbidity curtains; these would not be removed until sampling of herbicide and degradant concentration reach "non-detect" levels. Lake Tahoe would not be exposed to herbicides. LFA and UV light are experimental technologies for aquatic weed control and have yet to be demonstrated effective in an environment like the Tahoe Keys lagoons. Also see WQO-G1.

Comment AWM-43: The Laminar Flow Aeration(LFA), UV light and the elimination of nutrient sources will solve the weed and cyanobacteria problems if given enough time to do so. The nontoxic solutions will be so much more effective in solving decades of invasive weed infestations than to dump herbicides into lagoons full of fertilizer, Round Up and cyanobacteria. Turning to herbicides to solve weed problems so that boat owners can have access to Lake Tahoe is downright foolish and bad environmental policy. In my opinion your agencies should be committed to preserving the integrity of Lake Tahoe's Tier 3 Waters with long term nontoxic methods ONLY. It is a shame that you are exploring the use of herbicides in the Tahoe Keys lagoons when the homeowners continue to use fertilizer and weed killer on their lawns. This has only exacerbated the weed problems in their lagoons. No matter what method you choose to stop the weed infestations, if they don't stop fertilizing their lawns you will never get a grip on solving the problem. The nutrient overload from the fertilizer and weed killer enhances the growth of aquatic weeds and cyanobacteria bloom problems. It is the Regional Board's own policy to reduce fertilizer use in the Tahoe Basin. Why is this not your first priority? In addition, your weed harvester does a brilliant job of further spreading weed fragments all over the lagoons and Lake Tahoe by chopping the weeds into smaller pieces so that they can easily regrow in the lagoons and other parts of Lake Tahoe like Ski Run Marina. Why are you spending money on the EIR drafts, meetings, webinars and getting everyone in a tizzy when you still allow fertilizer and weed killer on their lawns and your mechanical harvester is only making the weed infestation worse. Unless you issue a pull-out-your-lawn order and refrain from using this particular weed harvester, you cannot begin to solve the weed and cyanobacteria problems. For starters, although you have told the homeowners to switch to a different type of fertilizer, one with less Phosphorus, you have NEVER banned fertilizer and weed killer in the Keys, which is something that should have been done long ago. This is basic common sense. Over the last six decades, the Keys have set out to enjoy Lake Tahoe with their boats and instead destroyed the lake with their weed infested lagoons and somehow you can't figure out that the first order of business is to ban fertilizer and stop using a harvester that further spreads the weeds? Before you embark on this EIR plan and waste even more money, you must first ban fertilizer at Lake Tahoe and retire this weed harvester and then find one that does not disperse weed fragments. Page 55 of the EIR talks about "abundant nutrient availability". Isn't "abundant nutrient availability" at least in part the result of homeowners fertilizing their lawns and those nutrients ending up in the lagoons? Why can't you point that out in your EIR? Lake Tahoe is no place for green lawns, ever. You should be doing everything in your power to stop the weeds. Instead, you have created the perfect environment for them to grow. Looking at your EIR I am convinced that you are tired of the weed problem and want the easy way out with herbicides. Your job is to save Lake Tahoe's water quality from the over application of nutrients and chemicals and not let these homeowners do whatever they want. Given enough time, these weeds will destroy the entire lake. For so many reasons we are in a state of crisis with the weeds and the blooms but no one, save for a few of us, is yelling, "FIRE"! The idea of using poison on an already imbalanced ecosystem destroyed from years of bad decisions and bad design is beyond imagination.

Contained within your EIR is the one sentence that says it all. It says that applying herbicides does not solve the problems of the seeds, turions and weed particles embedded in the muck at the bottom of the lagoons. What's the point of using herbicides when the weeds will grow right back? It's pointless to use herbicides if this is the case. You need to look at this from an environmental standpoint and not as a boat owner because this is not a sustainable solution. Your EIR even admits

that herbicides will not kill the seeds, turions and weed fragments thereby implying that you will have to perpetually add herbicides. The “test” that you propose is ridiculously deceitful because it opens the doors to continually poison the lake. What kind of solution is that? If you want to solve the weed problems you will need to get to the real cause and that is something your EIR does not address. The layout and design of the Keys is the true cause of the weed problems because of the shallowness of the lagoons and the lack of circulation. Besides returning the Keys to the marsh that it was originally or filling in the lagoons there is no easy answer. The boaters seem to care that only some of the weeds are removed so that their boats can get through the channel. Why remove 75% when you should really remove 100% of them? If you leave 25% of them then they will grow back which means perpetual poisoning, right? What would it take to create non-toxic solutions that effectively clean up the lagoons, get rid of the weeds and cyano blooms and restore the waterways to healthy state? The way that I see it is that you need to scratch this current EIR and start over with another that addresses how to fix this problem once and for all. What you have on the table right now is a complete sham and a disservice to the people of Lake Tahoe. One of the great tragedies of Lake Tahoe is the fact that the Tahoe Keys were built in the first place. Their poorly designed lagoons, docks and lawn fertilizer use have fostered a scourge of invasive weeds and cyanobacteria blooms which have spread to other parts of the lake, the Truckee River and Pyramid Lake. Without proper guidance and oversight, the Tahoe Keys will soon render Lake Tahoe unfit for anyone to enjoy. Their continued use of fertilizer on their lawns and a sloppy weed harvester that sprays weed particles all over the lagoons and into Lake Tahoe will undo any progress that we make in weed control. They cannot be trusted to not fertilize so eliminating their lawns is the first step towards stopping the nutrient flow into the lagoons. Although this will help, it does not solve the problem of what to do with the current nitrogen and phosphorus overload. If we allow the Tahoe Keys to proceed with their environmentally irresponsible plan of wanting to use herbicides to solve their weed problems, we will have nothing but enormous cyanobacteria blooms because of the existing fertilizer overload and excess nutrients from the weed die-off. Jim Good wanting to “sprinkle” another chemical into the lagoons to get rid of the excess phosphorus to prevent cyanobacteria blooms is not a solution, given the enormous extent of the water column imbalance. So many agencies have volunteered time, money and manpower to help keep the weeds in check for a group of homeowners who cannot figure out how to honor nature and restore their lagoons and water ways to a healthy state. These homeowners have sucked the life force out of the lake in exchange for the privilege of being able to have their boats in their backyard lagoons. Without regard for anyone else’s enjoyment of Lake Tahoe, the Tahoe Keys have degraded the water, land, marshes and ecosystem of Lake Tahoe. Every time a boat exits the channels, weed particles are brought into the lake, further spreading the invasive weeds, bubble curtain or not. At this point the Tahoe Keys need to concede their “fight” against the weeds and hand over the responsibility to a group/agency who can truly solve this problem in a nontoxic manner. Left to their own devices it is obvious that the Tahoe Keys are on a downward spiral and incapable of protecting Lake Tahoe from fertilizer, invasive weeds and cyanobacteria blooms.

The lack of foresight, planning and proper research on the part of the Tahoe Keys is exactly how most of the US has responded to its invasive weed and cyanobacteria problems, by doing the next best LAZY thing: pouring herbicides into their water bodies. Instead of approaching the situation from a wholistic standpoint and taking the time to understand what the real problems are and how everything in the ecosystem is interconnected, the Tahoe Keys have gone the easy route with the false idea that herbicides will correct the huge imbalance brought on by the invasive weeds, when in fact their infrastructure layout is the real issue. They even admit on page 151 that “the factors that influence the occurrence of cyanobacteria blooms can include excess nutrient (nitrogen and phosphorous) 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 minerals”. This describes exactly what is going on in the Keys lagoons. We have the perfect recipe for cyanobacteria blooms and invasive weeds, a by-product of bad planning, bad design and

ignorance of nature. Short of filling in the lagoons, the only way to fix this huge environmental disaster is with nontoxic long-term solutions such as LFA and UV light which are currently being tested and combining this with other proven non-toxic methods. The success of LFA at the Ski Run Marina and the UV light at Lakeside should convince you that given time, these methods will help clean up the invasive weeds in the Tahoe Keys. Their "weed committee" needs to do an about face on the herbicide permit and promote these two nontoxic methods 24/7 365 days a year for the next three years in their lagoons. Stop wasting time. Get this handled without herbicides! Although certain nontoxic methods such as bottom mats and hand harvesting are currently being used to deal with the weeds, a wholistic framework would benefit them immensely. By restoring what is missing in their lagoons, compensating for the lack of oxygen with LFA and by not permitting their residents to continue to use fertilizer on their lawns, the Tahoe Keys can eventually restore their lagoons. Unfortunately, their EIR draft reflects the Tahoe Keys lack of understanding of the ecosystem of Lake Tahoe. Despite their graphs and analyses, their draft EIR falls short of giving the stakeholders an honest and complete investigation of the issues and components in this complex and fragile ecosystem that is Lake Tahoe.

Response to Comment AWM-43: See response to comment AWM-56 regarding nutrient loading from landscape irrigation and stormwater and response Master Response HER-G1 regarding herbicides. See also Section 1.2.2 regarding project goals and objectives for testing aquatic weed control methods. LFA and UV light are promising emerging technologies for aquatic weed control and have yet to be demonstrated effective in an environment like the Tahoe Keys lagoons. See response to comment AWM-39 regarding mechanical harvesting. See also Master Responses AWM-G2 and AA-G1.

The CMT is designed in part to evaluate whether one-time application of herbicide products followed by Group B spot treatment methods is effective in controlling aquatic weeds. This information would be used to inform development of a long-term integrated management plan for full-scale management of the aquatic weed problem throughout the Tahoe Keys lagoons. The long-term plan would require a separate environmental evaluation and permitting process. Also see Master Responses RES-G1, AWM-G1, and AWM-G2.

See response to comment HE-1 regarding herbicides. See also Master Response ALT-G2.

Comment AWM-44: What is Missing From Your Draft EIR: A comprehensive study of the amount of fertilizer and Round Up in the lagoons and the origination points.

Response to Comment AWM-44: Appendices E and F and Section 3.3.4.1 (Issues WQ-6 and -7) present information on the amounts of phosphorus and nitrogen in the lagoons and their sources. Before herbicide products would be tested under the CMT, sampling and analysis would be performed to establish pre-project baseline concentrations of the specific active ingredients and degradants of herbicides proposed for testing. Products containing glyphosate (e.g., Roundup) are not among the aquatic herbicides proposed for testing. Also see Response to Comment AWM-23.

Comment AWM-45: The DEIR/EIS Understates the History of Weed Management Efforts in the Tahoe Keys and Underplays the Urgency of the Proposed Project.

As presented by Tahoe Keys representatives at numerous stakeholder and agency meetings, the Tahoe Keys has invested a substantial amount of time and money evaluating numerous methods to manage the aquatic weeds infestation. It is because of this effort and the lack of identification of an effective combination of non-chemical solutions that the Proposed Project is so urgent. By essentially disregarding this history, the DEIR/EIS does not provide sufficient context for decision makers to fully understand the urgency of the Project and the need to act decisively and aggressively at this time. An effective summary of the past history of actions taken by TKPOA should include, at a minimum:

Initial AIS control efforts began in the 1970s with installation of a water treatment system to, in part, reduce nutrients that promote weed growth, and a requirement from the City of South Lake Tahoe to begin harvesting;

- Rotovating field trial in the Keys lagoons – 1988
- First mesocosm studies – 2000 and 2001 – Tahoe RCD, TRPA, and TKPOA jointly research available control methods and test jute and synthetic bottom barriers – 2011 through 2013
- Convened expert panel of government and academic scientists – 2013
- WDRs issued and initiated Non-Point Source Water Quality Control Plan measures and Integrated Management Plan – 2014
- Expert panel findings presented at stakeholders and public meeting – 2015 Subsequent to issuance of the WDRs, TKPOA has implemented the following specific actions:
- Weed fragment production studies (pre and post-harvest)
- Seasonal weed surveys
- Water quality monitoring (15 parameters at 13 sites and 5 depths, monthly from April to October for the past 7 years)
- Bottom barrier program (large-scale test and individual homeowner installations)
- Multiple Rhodamine dye studies beginning in 2010
- Channel dredging
- Additional review of rotovating
- Additional mesocosm studies
- Greenhouse Gas Emission study
- Goose droppings nutrient study
- Atmospheric deposition of nutrients study
- BMI study
- Installation of Boat Backup Station
- Installation of West Channel bubble curtain and Sea Bins
- 6-acre Laminar Flow Aeration test beginning in May 2019 and operated almost continuously since.

Since 2013, TKPOA has spent almost $5.25 million on studies, field tests, and program implementation to control the target aquatic weed infestation in the Keys. Despite those efforts, the infestation continues to expand and new species, such as CLP are proliferating.

The items listed above were described in some detail in the application documents submitted by TKPOA and many of the related studies are available on the www.keysweedsmanagement.org website maintained by TKPOA.

We also strongly recommend that the following information, readily available in the annual Macrophyte Survey reports and annual Integrated Management Plan Updates, be included in the DEIR/EIS. They are critical for decision makers and the general public to accurately understand the existing environmental setting and the urgency this effort deserves to address the rapidly proliferating CLP infestation.

The bar chart, below, shows the frequency with which CLP has been identified in the annual Macrophyte Survey point sampling. In 2014 and 2015, CLP was found at 10% or less of all Macrophyte Survey sample locations. Since 2016, this percentage has rapidly increased such that the 2020 data show that CLP was present at almost 50% of all locations surveyed in the Keys lagoons. (Note: bar chart not included in comment field but can be viewed in original comment letter)

Response to Comment AWM-45: Thank you for your comment on the history of the TKPOA's weed management efforts. Section 1.1.3 provides a summary of the history of TKPOA responses to the aquatic weed infestation. A detailed history of weed management efforts is not necessary to include in the DEIR/DEIS. However, the history of TKPOA's efforts is noted.

Comment AWM-46: The invasive aquatic weed infestation in and around the Tahoe Keys was discovered in the 1970s and now affects up to 80 to 90% of the wetted area in the Tahoe Keys lagoons. Efforts to manage aquatic invasive weeds in Lake Tahoe have been underway for decades, and the problem has grown to a very large scale; immediate and effective treatment is of critical importance. A significant body of data, along with the independent expert panel convened in 2013, demonstrates that, in addition to being entirely safe, herbicides are necessary to manage an infestation of this scale.

Neither of the primary treatments contemplated by Action Alternative 1—LFA and UVL—has ever been deployed on a commercial scale, and neither is currently commercially available for a Project of this nature and size. The effectiveness of these treatments under the conditions that exist within the Tahoe Keys lagoons is unknown. In fact, obtaining such information is one of the primary purposes of the project. Until such information is obtained, it is speculative at best to conclude that the primary treatments in Action Alternative 1 can meet project goals.

UVL has only been tested at Lakeside Beach and Marina in South Lake Tahoe, which has a different bottom substrate and much better water clarity and water quality than in the Keys. In a recent article in the Reno press (https://mynews4.com/news/local/ultraviolet-light-used-to-kill-algae-at-lake-tahoe), the technology developer, John Paoluccio of Inventive Resources, acknowledges that additional modifications are still necessary, after two to three years of treatment, to be able to address the much more straightforward aquatic weed issue at Lakeside. Overall, this technology is still developing and is unproven in the Keys.

LFA alone has never been proven to reduce rooted aquatic plant growth or reproductive capacity at the scale needed for this project. In fact, LFA is primarily aimed at reducing harmful algae. TKPOA has been operating a 6-acre test system nearly continuously since May 2019 (with less than 30 days of downtime over more than 400 days for routine maintenance and replacement of a faulty compressor). While it appears that LFA may have been successful in mixing the water column to more uniformly distribute dissolved oxygen, TKPOA has yet to see any evidence that it is altering nutrient availability in the shallow sediments such that it might discourage aquatic weed growth. Current observations in the Keys are similar to those at Ski Run Marina, showing that, while the LFA system may reduce aquatic weed growth in the area of the diffusers, the weed growth is unaffected, and may be enhanced, along the margins of the channels. In addition, the potential for LFA to cause independent potential impacts on the environment that would require mitigation and adaptive management (e.g., by circulating nutrients into dead-end areas) was not adequately evaluated in the DEIR/EIS.

Response to Comment AWM-46: The CMT includes a one-time test of herbicide products in the West Lagoon and Lake Tallac followed by Group B spot treatments to see if this approach will be effective at controlling aquatic weeds and protecting human health and the environment. Section 2.2.2 describes criteria that were used in a screening process to determine which aquatic weed control methods should be included as project alternatives for further evaluation in the DEIR/DEIS. The DEIR/DEIS describes a reasonable range of alternatives to the CMT that would feasibly attain most of the Proposed Project objectives but would avoid or lessen any significant environmental impacts. As described in Chapter 1, the Lead Agencies worked with a stakeholder committee to provide broad guidance and input to the development of the Proposed Project and action alternatives. The DEIR/DEIS acknowledges that there is insufficient information to know whether UV light or LFA will be effective at meeting project goals and objectives for aquatic weed control in the lagoons; therefore, they are included for further testing in the CMT or Action Alternative 1. As described in DEIR/DEIS, Section 2.3.3, in 2019 Inventive Resources began evaluating how UV light arrays could be configured to be most effective in the lagoons, so that technology development is currently underway but remains unproven. The 6-acre LFA pilot test that was initiated in the West Lagoon in 2019 would continue to be tested and monitored under the CMT or Action Alternative 1, together with two additional LFA test sites. Preliminary information available from their water quality monitoring of the existing LFA pilot test was reviewed and it did not provide any clear indication of

adverse water quality impacts. Recent years of monitoring, including the baseline study presented in Appendix E, have shown that nutrient concentrations have been sufficient to support dense aquatic weed infestations and occasional HABs in dead-end channels of the West Lagoon both before the LFA pilot project and in areas distant from the pilot project. The potential for LFA to increase the availability of nutrients is addressed in Section 3.3.4 under Issues WQ-6 and WQ-7. Also see Master Response ALT-G1.

Comment AWM-47: ES .1 - In the executive summary and in every presentation, it is stated by TRPA that multiple non-chemical methods have been used for the past 10 years to try and eradicate weeds. It is not pointed out that all trials of these methods were small scale and short periods of time that didn't allow adequate testing. It was also not mentioned that none of the methods were tried in combination. The summary also mentions a concerted effort by the TKPOA to manage the infestation. It is not brought up that the Tahoe Keys development was required to have a circulation and filtration system installed when the development was approved. Nor does it mention that the system was shut down over 30 years ago because they over used Bromine. Native and non-native weeds became an issue in just five years. Lars Anderson, as their specialist, was primary familiar with aquatic herbicides and unfortunately did not address the source of the problem and suggest eliminating the lawns and associated nutrients, nor getting the 160 plus storm water inlets that drain into the Keys filtered. See the pictures and video below that were taken just two days ago of a very small sample of the extremely lush lawns that are being overwatered increasing the filtration of the associated nutrients from the lawns through the sand below, also running off into the street drain inlets plus directly draining into the lagoon from the edges of the lawns and swales. In addition, the harvesting Lars Anderson supported caused fragments that also multiplied weeds. The HOA didn't fix the water circulation part of the system or increase it as would be logical after the required filtration system was shut down. Therefore, it appears misleading to tell the public that the HOA has put out a "concerted effort" when they could have done so much more in the last 30 years.

> **ES .2** — TRPA as the primary permitting agency must be providing thorough and accurate information for the planning and decision making process. The success of the aeration system at Ski Run Marina for reducing on average over 20 inches of nutrients/muck in just one year is not mentioned in this document. It was thankfully mentioned by Dennis Zabaglo at the last webinar. This and all the items mentioned above should be provided so that it is clear that the non-chemical methods have not been tested in the Keys thoroughly and that there has not been a significant effort to reduce the flow of nutrients into the keys lagoons by eliminating lawns and associated nutrients. Accepting comments from a "specialist" who says that the nutrients coming from stormwater runoff and directly from yards is insignificant without requesting much clearer thorough and adequate testing is irresponsible. It could be insignificant compared to the huge mass of nutrient that sits at the bottom because of 30 years of mismanagement, however it still needs to be addressed and TRPA could allow homeowners to use fake grass only in the Keys area in order to eliminate this source but allow the homeowners to have the look of grass.
>
> **ES .3.2** - It is stated that the aquatic herbicides will be tested once, however obviously it's being tested in order to see if it should be approved as part of a long-term management program, otherwise it would need to be tested. The mutation of weeds, becoming stronger, is not being mentioned. There is no need to test aquatic herbicide when they have already been used for years and proven to only have long-term negative effects. See the articles from Big Bear Lake, which is a high-altitude lake, where weeds are so strong and thick after 20 years, they have caused people to drown. Also refer to the articles from Minnesota where after 30 years of use I have resorted now to diver assisted hand pulling etc.
>
> * See attached articles - Failures 1a, 1c & 1d, and Page 6 of Alternatives 4b
>
> Note attached photos are articles not provided in the comment field but are available in the original comment email.

Response to Comment AWM-47: Thank you for your comment on the history of the TKPOA's weed management efforts. Section 1.1.3 provides a summary of the history of TKPOA responses to the aquatic weed infestation. A detailed history of weed management efforts is not necessary to include in the DEIR/DEIS. However, the history of TKPOA's efforts is noted. See response to comment AWM-56 regarding nutrient loading from stormwater and landscape irrigation. Results from the LFA pilot test at Ski Run Marina and other testing of LFA as an aquatic weed control method are discussed in Section 3.3.4 as part of evaluating several water quality issues. Further testing is needed to see how LFA will perform to control aquatic weeds in the Tahoe Keys lagoons. 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 not considered significant. Please also see Master Response ALT-G2 and Master Response HER-G1.

Comment AWM-48: ES.4.6 - aquatic herbicide do result in increased nutrients and should be addressed:

> **ES.5.1** - For the TRPA, who is primarily responsible for the health of Lake Tahoe to say the Proposed Project that includes the testing of aquatic herbicide is "consistent with the overall goals of for the TRPA. Please Remind and educate yourselves on all the non-chemical items that have not been done yet or properly. Be responsible for the health of Lake Tahoe and require the reduction of nutrients and the use of non-chemical methods immediately. Please required lawns to be implemented from the keys and replaced with fake grass.

Response to Comment AWM-48: The effects of the test program on nutrients and runoff in the Tahoe Keys is discussed in Section 3.3.4. See response AWM-23 and AWM-56.

TRPA has determined that the Proposed Project to be consistent with its Lake Tahoe Environmental Improvement Plan.

Comment AWM-49: The Draft EIR/EIS does not address the source of the problem: these artificial lagoons, which were dredged out of the Upper Truckee River marsh, beginning over 60 years ago, were destined to become highly eutrophic and susceptible to invasion by weeds. This destiny is due to both the nutrient-rich marsh from which the lagoons were dredged, plus the 60 years of accumulated stormwater inputs from the Tahoe Keys and other surrounding neighborhoods with their fertilizer-enriched, verdant green lawns. Maintaining this environmental disaster at the south end of one of the world's deepest and clearest oligotrophic lakes without anticipating these systemic, built-in causes is tantamount to negligence. A eutrophic system of lagoons connected to Lake Tahoe will always be in conflict with the rest of the Lake, which was a perfect example of an oligotrophic lake. With increased warming due to climate change, the problem will only worsen if it is not addressed head-on with holistic solutions. Knee-jerk band aids like the Proposed Project, whose goal is saving a few boat-owners' ability to boat to the Lake from their backyard, will not suffice. The best way to protect the Lake in the short term until the real solution, restoring the dead-end lagoons to nutrient-filtering marsh, is implemented and completed, is to install a barrier between the Lagoons and the Lake. The suggestion was offered more than three times by the Sierra Club and by community members to include an analysis of this suggestion in the Draft EIR/EIS was ignored. Our scoping comments requested that the Agencies document and analyze the source of the problem – the unnatural environment that was created by destroying the marsh. Nutrients have accumulated for decades in this unnatural environment and perpetual treatment of the nutrient-stimulated weed growth will be required. The Agencies ignored this request. In fact, the Draft EIR/EIS conveys the illusion that using herbicides only once will miraculously solve the problem. The numerous studies of lakes elsewhere in the United States that have initiated aquatic herbicide use have had to continue its use on a regular basis. The Draft EIR/EIS does not include any examples of lakes treated with herbicides that have successfully reduced weeds significantly from one treatment.

Response to Comment AWM-49: With regard to the installation of a physical barrier between the Keys and the Lake, please refer to the response to comment ALT-17. Also see response RES-G1.

Comment AWM-50: Some potential non-chemical control measures are not evaluated in this Draft EIR/EIS. Floating Treatment Wetlands, included in the list of resources in https://www.keysweedsmanagement.org/resources-1, have been studied, but were found to be "too obtrusive for use in the Main and Marina lagoons of the Tahoe Keys, where there is heavy boat traffic and docks." The agencies are clearly prioritizing recreation over reducing the nutrients, the source of the problem. This control measure should have been analyzed in the Draft EIR/EIS.

Response to Comment AWM-50: Floating treatment wetlands are intended to improved water quality but not directly reduce the abundance of aquatic weeds. Floating treatment wetlands were not considered as a Group A method capable of meeting project goals and objectives, or effective as a Group B method for spot treatment of residual aquatic weeds following Group A methods. Therefore, floating treatment wetlands were not carried forward in the CMT or testing alternatives. However, TKPOA is pursuing a demonstration project under their Waste Discharge Requirements to see how floating treatment wetlands impact nutrient levels in the areas they are used. Please also see Master Response ALT-G1.

Comment AWM-51: The executive summary, page ES-7, states: "CEQA requires a statement of issues to be resolved and areas of controversy." Taking that to mean that issues and areas of controversy need to be discussed in the Draft EIR/EIS so that they can be resolved, the list of 12 issues to be resolved includes several that are not discussed or discussed only cursorily. These [include]:

* The "need for long-term aquatic weed control and prevention of further dispersal of fragments into Lake Tahoe" is only discussed in terms of the no action alternative, which (as far as we know) was not supported by any scoping comments. (The agencies have not made the scoping letters public.) The Draft EIR/EIS completely ignores two key elements of the Sierra Club's scoping comments relevant to long-term management: (i) 60 years of accumulated nutrient-rich stormwater inputs that are feeding the explosion of aquatic weeds, and (ii) the need to analyze removing the habitat for the weeds by restoring the lagoons to marsh, a lower cost long-term solution.
* The Draft EIR/EIS cites the "long-term costs of aquatic weeds management, and of inaction to control weeds." However, the Draft EIR/EIS does not look at costs at all. It only looks at costs in relation to the environmental impacts of no action, which was not supported by any scoping comments. The Draft EIR/EIS does not look at the estimated costs of each alternative in any manner whatsoever, though knowledge of the estimated costs is essential for informed evaluation of the alternatives as stated above in the General Comments.

Response to Comment AWM-51: The DEIR/DEIS contains a brief summary of the proposed actions and its consequences. This summary is not required to go into detail but rather should "be as clear and simple as reasonably practical" and "should normally not exceed 15 pages." (14 CCR 15123) The DEIR/DEIS contains a brief, clear, and simple summary of the known controversies in the Executive Summary. With regard to the need for long-term aquatic weed control and prevention of further dispersal of fragments into Lake Tahoe, the purpose of the test program is to lay the foundation for such a program. With regard to restoring the Tahoe Keys, see RES-G1. With regard to cost, please refer to the response to comment CST-G1.

Comment AWM-52: Section 3.1.1.5 states: "Testing the efficacy of aquatic weed control methods in improving water quality of the lagoons is a goal of the project." The lagoons do not presently satisfy water quality standards. Experience elsewhere shows that perpetual herbicide treatment of the

lagoons would be required to control invasive weeds. Perpetual herbicide treatment would only worsen the below-standard water quality by adding toxic chemicals. The efficacy of the non-chemical methods must be tested first, as required by the Basin Plan.

Response to Comment AWM-52: Perpetual herbicide treatment is not proposed as part of the CMT. The project proposes testing a one-time application of herbicides to knock back aquatic weed beds followed by testing of Group B methods to see if the follow-up methods can maintain control of target species at the test sites. See also Master Response ALT-G2 regarding Basin Plan requirements for evaluating non-chemical methods. See also Master Response HER-G1.

Comment AWM-53: The discussion of dispersal of aquatic weed fragments begins on page 3.3.4-12. Mechanical harvesting, the primary weed control method used "since the 1980s" and the method approved by the Lahontan Water Board, has only exacerbated the weed problem by breaking up the weeds and allowing them to root elsewhere. Mechanical harvesting has been an unmitigated disaster, approved by the Water Board even though it is a major contributor to violations of the water quality objective for floating materials. The Draft EIR/EIS should have explained why mowing has been allowed to continue. This omission must be remedied in a revised Draft EIR/EIS.

Response to Comment AWM-53: Background on mechanical harvesting permitted under the Integrated Management Plan of TKPOA's Waste Discharge Requirements is provided in Section 1.1.3.1 and 1.1.3.2. See also Master Responses AWM-G2 and PP-G1.

Comment AWM-54: Please consider non aquatic herbicide shortcut measures that will leach into Lake Tahoe, without truly addressing the nutrient imbalances that are feeding the infested lagoons.

Response to Comment AWM-54: See response to comment AWM-56.

Comment AWM-55: LFA has been used successfully to treat weeds/algae in large scale projects for many years. It successfully reduced nutrients at Ski Run Marina. Bottom barriers and diver-assisted suction methods have also been used on large scale projects with significant success.

Response to Comment AWM-55: See response to comment WQ-36 regarding past and ongoing LFA pilot projects for aquatic weed control, including the Ski Run Marina project. See response to comment ALT-42 regarding the potential for bottom barriers as an aquatic weed control method in the Tahoe Keys. See also response to comment ALT-33 regarding the potential for diver-assisted suction harvesting as an aquatic weed control method in the Tahoe Keys.

Comment AWM-56: The Keys' proposal does not adequately address the nutrients that are feeding the weeds. These nutrients must be eliminated not just by using aeration as was done at Ski Run, but by relacing lawns adjacent to the Keys with artificial turf that allows water to continue to the sand below and installing filtration at the ends of the pipes that drain into the Keys.

Response to Comment AWM-56: As illustrated on Figures 3.3.4-16 and 3.3.4-19 and described in Appendix F, 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. Also see response to comment AWM-23.

Comment AWM-57: Why don't we install a quality aeration system now, such as the Clean Flo system and run it 24/7, 365? This was done the Ski Run Marina where it reduced the nutrient loading/muck

by an average of over 20" in one year by increasing oxygen, reducing loading and muck sediment. In addition, the ammonia has been shown to crash and then the weeds die when these systems are used. It will also have a benefit of deepening the channels so that the oxygen can be placed lower and therefore cover a larger area plus the water will get colder.

Response to Comment AWM-57: A 6-acre LFA system was installed at the Tahoe Keys West Lagoon (see Figure 2-4, Site 26) and has operated continuously since May 2019, except for 27 days in May 2020 when a compressor was being replaced. By continuing to operate this system through the 3 years of methods testing, information from a total of 5 years will be available to evaluate performance of this technology in reducing muck thickness and nutrient content, and in controlling aquatic weeds. Together with 3 years of testing at two additional Tahoe Keys test sites, information will be developed to better understand how LFA could contribute to long-term aquatic weed control throughout the lagoons.

Comment AWM-58: I would suggest making keys HOA and businesses fund the removal. To my knowledge they hire a few people to do removal every year. Why not spend a larger amount of money to get rid of the plants for good in one year and save money over time?

Response to Comment AWM-58: Thank you for your input regarding funding the removal of aquatic weeds in the Tahoe Keys. This is not a topic directly treated by the DEIR/DEIS.

Comment AWM-59: They don't favor one tool over any other at this time. They feel it's essential that all the tools in the tool kit be tested that are in category A and B to get a true picture of the pros and cons of each tool. They can't afford to waste possibly three years looking at an alternative that doesn't come anywhere near reducing the biomass by 75%. That wasn't mentioned in the presentation but is one of the four primary goals of the project. They're asking to test all the tools and find a solution and a mix of tools that meets the objective of reducing the biomass by 75%.

Response to Comment AWM-59: Thank you for your comments regarding the need to test all tools for aquatic weeds control; the consideration of all feasible and reasonable tools that may be capable of meeting the 75% removal goal has been fundamental to defining the proposed test program. See Master Response AWM-G1.

Comment AWM-60: The discussion of issue WQ-2 states "Laboratory experiments have shown that turbidity values for silt and silt-clay particles decrease substantially in 12 hours, but clay-sized particles maintained a constant high turbidity over 24 hours suggesting these particles stay in suspension for long periods (Holliday et al. 2003.)" In fact, some of the marina dredging projects on the Lake between 2005 and 2017 encountered turbidity problems that required the turbidity curtains to be maintained for as long as several weeks. The Lead Agencies have avoided requiring proactive aquatic management solutions that can be implemented to help slow or prevent the build-up of muck and sediment in the Keys, such as proper land use management, maintenance of beneficial vegetative buffers and sediment traps, installation of aeration systems, and utilization of nutrient-absorbing products. The build-up of muck and sediment has increased while the Lead Agencies ignored the problem for years. Now the Agencies propose testing what should be the last resort, herbicides, which is not in the public's best interest. Better management by the Lead Agencies would be in the public's best interest.

Response to Comment AWM-60: High turbidity in the Tahoe Keys was first observed during construction of the lagoons in organic wetland soils more than 50 years ago and led to the TKPOA constructing and operating a water treatment plant south of Lake Tallac, so this anecdotal evidence suggests that fine organic sediment was present from the beginning. The continued buildup of

organic muck in recent decades has been primarily from aquatic plant decomposition within the lagoons, with external nonpoint sources contributing more of the inorganic silt and sand deposition. Nonpoint source nutrient control at the Tahoe Keys is regulated by the LWB under the Nonpoint Source Water Quality Management Plan and Waste Discharge Requirements. Also see response to comments AWM-23 and AWM-56 related to control of nonpoint source pollution and internal lagoon processes. Turbidity impacts from the Proposed Project would be less than significant.

Comment AWM-61: Why fertilizer hasn't been banned in the Tahoe Keys which is contributing to the weed growth in addition to the harvester that's spreading thousands of fragments of weeds in the lagoons and Lake Tahoe.

Response to Comment AWM-61: See comment responses AWM-23 and AWM-56.

CYANOBACTERIA

Comment CYB-1: Draft EIR/EIS does not adequately address cyanobacteria links to human health (see comments during scoping).

Response to Comment CYB-1: The EIR/EIS is for a program to test aquatic weed control methods, but it is not a program designed to solve the important problem of harmful algal blooms (HABs). Without getting into information on cyanobacteria species, specific cyanotoxins, potential human health effects from cyanotoxins (e.g., neurotoxicity), or cyanotoxin exposure routes, it is acknowledged that an increase in the occurrence of HABs attributable to testing aquatic weed control methods could be a potentially significant impact without mitigation. Section 3.2.1 provides an evaluation of the potential for increased HABs occurrence at test sites following dieback of aquatic weeds and release of nutrients to the water column from decomposing plant tissues. Mitigation measures and design features are summarized in DEIR/DEIS Table ES-1. Due to the remaining uncertainty of potential increased HABs, additional mitigation measures were developed to minimize nutrient release, and make conditions less favorable for HABs. In Section 3.3.4 under Issue WQ-6 an additional mitigation measure is described, using a bentonite clay/lanthanum product to remove phosphorus from lagoon water as a method to treat any HABs that appear at test sites, effectively starving the algae and cyanobacteria of an essential nutrient. Implementation of project mitigation measures and design feature has reduced the potential to increase HABs to less than significant.

Comment CYB-2: What kinds of cyanobacteria toxins have been found in the Tahoe Keys; What is going on with the fertilizer use by the Tahoe Keys residents and has there been any testing done in the air in regard to the algae blooms.

What cyanobacteria occur in Keys? What fertilizer use by Keys residents? What airborne effects from HABs?

Response to Comment CYB-2: See response to comment CYB-1. Cyanobacteria found in 2020 lagoon samples were *Woronichinia* sp., *Aphanizomenon* sp., *Dolichospermum* sp., Geitlerinema sp., and *Microcystis* sp. Cyanotoxins detected were anatoxin-a and microcystin/nodularin. See also response to comment AWM-56 regarding nutrient loading from stormwater and landscape irrigation.

Comment CYB-3: EH-6 HABs. Based on previous occurrence of HABs and cyanotoxins, and the potential occurrence of HABs in response to the proposed CMT, the mitigation proposed appears limited to minimizing the treatment areas and use of LFA. Would the TKPOA want to apply an aquatic algaecide, (i.e., use another chemical to reduce algal counts)? Use of treatment could lyse cyanobacterial cells releasing increasing amounts of cyanotoxins. No details are provided regarding the frequency of monitoring for increases in algal counts and testing for cyanotoxins and what would be the response to occurrence of HAB or detection of elevated cyanotoxins.

Response to Comment CYB-3: Additional mitigation is proposed where increases in water column total phosphorus during the decay of aquatic weeds at treatment sites leads to HABs occurrence (see Section 3.3.4, Issue WQ-6). A bentonite clay product containing lanthanum (e.g., 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. Compared to the no-project alternative, increased visual inspections for evidence of HABs would occur at test sites and surrounding areas during frequent monitoring of water quality and treatment effectiveness. Current practices would continue with TKPOA collecting samples for laboratory analyses anytime visual signs of HABs occur at test sites or other areas of the lagoons. See response to CYB-6 regarding details of HABs monitoring.

Comment CYB-4: EH-6, page 3.2-5 Harmful Algal blooms (HABs). Page 3.2-5. For completeness the discussion should mention that the US Environmental Protection Agency has issued Drinking Water Health Advisories for microcystins and cylindrospermopsin for children under the age of six.

Response to Comment CYB-4: As described in the DEIR/DEIS Section 3.2.1 (pages 3.2-5 and 3.2-9) there is limited risk to drinking water supplies as there are no direct potable water intakes within or adjacent to the Tahoe Keys lagoons, public drinking water intakes are far enough away to not be impacted, and groundwater supply well intakes are far below the area of surface water and ground water interaction. Given the limited risk to drinking water supplies from the CMT the inclusion of health advisory information is not necessary to the analysis of impacts.

Comment CYB-5: Due to the increased uptake of the chemicals in our lakes and rivers, a higher frequency of cyanobacterial harmful algal blooms is causing water quality degradation and can produce toxins that have the potential to cause human harm.

Response to Comment CYB-5: See comment response CYB-1.

Comment CYB-6: Potential for Harmful Algal Blooms to Occur During the Control Methods Test and Measures to Mitigate Them if they Should Occur: The DEIS describes the historic occurrence of toxin-producing Harmful Algal Blooms (HABs) in the Tahoe Keys and states that existing programs to monitor and warn people when cyanotoxins are present are expected to continue to be effective in protecting against any additional risks of exposure to cyanotoxins. Given the possibility of synergistic effects of proposed herbicides and HABs in the event these should occur during the project, given that HABs have occurred in the Tahoe Keys during spring—when herbicides are proposed to be used—and given that conditions that cause cyanobacteria to produce cyanotoxins are not well understood, and do not necessarily coincide with visible algae blooms, augmentation of existing cyanotoxin monitoring may be warranted during the CMT. Recommendation: The USEPA recommends that the FEIS consider increased cyanotoxin monitoring at testing sites and measures to restrict public access to testing sites during periods of maximum HAB risk during the CMT. The FEIS should describe in detail the public notification and access restrictions that will be imposed if monitoring detects the presence of cyanotoxins.

Response to Comment CYB-6: 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 when HABs are present based upon state of California guidelines. Given that all contractors and monitoring personnel at the site would be trained in recognizing the visual signs of potential HABs, and because of the additional workers making observations it is more likely that potential HABs will be reported and sampled earlier than they have been in the absence of the Proposed Project. 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.

Comment CYB-8: I am against using herbicides in the Tahoe Keys because of its impact on cyanobacteria and the neurotoxins that it will release. I am also concerned about the amyotrophic lateral sclerosis (ALS) cluster at Lake Tahoe and its connection to the cyanobacteria blooms in the Keys. I have reached out to Dr. Jim Haney who is willing to send his team out here to conduct aerosolized studies of the cyanotoxins and to Dr. Elijah Stommel who is willing to help us set up an epidemiological study. I urge all of you to support these studies before you allow the Tahoe Keys to pour herbicides into the lagoons. Over the past five years I have sent all of you documents outlining the true dangers of cyanobacteria blooms as well as the outcome of adding herbicides to waterbodies full of fertilizer and cyanobacteria. For some reason you have chosen to ignore this

information and then shockingly went on to produce and EIR draft that makes everyone wonder where your allegiance truly is with respect to the health and wellness of Lake Tahoe. The documents that I sent you should have piqued your curiosity and made you want to investigate. Instead, you ignored what I sent you and so did the scientists that you hired to write the draft EIR. What is really disconcerting in your EIR draft is the absolute lack of comprehensive research into the cyanobacteria blooms and how they directly affect the local community. In your EIR on page 151 you state that cyanotoxins can occur in the absence of a bloom. This could explain why so many people are sick and have died from motor neuron diseases. In Dr. James Haney's video, he speaks about this exact thing. Kate Langley did her thesis on low productivity lakes, like Lake Tahoe, and how cyanobacteria toxins are aerosolized. If that is the case with Lake Tahoe then we have much to worry about. Only testing the lagoons when there are visible blooms does not capture the extent of the toxicity of cyanobacteria in the lagoons. If people are getting sick from cyanobacteria that is not visible then we should conduct studies to find out the extent of the toxins and the degree to which they are aerosolized. Dr. James Haney and his team have offered to come out and set up studies. Dr. Elijah Stommel has offered to help us do an epidemiological study. We need their help. This is their area of expertise. Ignoring this information is no longer an option because the numerous cyanobacteria blooms and the consequences of the BMAA neurotoxin have neither been tested nor researched. In the 2013 research paper by Dunlop, Cox, Banack and Rodgers they discuss how the BMAA neurotoxin can be misincorporated into human neuroproteins in place of L-serine thus causing neurodegeneration-ALS. In the 2017 paper written by Jim Haney, Elijah Stommel and others, they discuss the high incidence of ALS in the small lakeside community of Enfield, NH with a population under 5,000 in which they found that ALS was 10-25 times the expected average of 1 per 50,000 residents. Between 1990-2007, with the majority between 1998-2007 they diagnosed 278 cases of ALS. If I know of 11 people who have died of ALS and Parkinson's at Lake Tahoe, then how many are there once an accurate count is done? I am going to guess hundreds and if that doesn't spell cluster to you then we are on the wrong page. You have not done an epidemiological assessment to study the impact of this toxin on the community nor has there been an investigation into the deaths of its citizens from motor neuron diseases caused by these blooms. In short, there has been a complete and total refusal to address this issue. I say this because I have sent numerous documents to all of you over the last five years and not one of them was mentioned or referred to in your draft or appendix. Is that because you don't think cyanobacteria is an issue or because you don't want to accept how deadly the blooms really are? If we delve into the information that should have been included in your EIR we will see how your team has short-changed the citizens of Lake Tahoe because you have failed to examine the lethality of cyanobacteria blooms and who they have affected. The people who have died at Lake Tahoe from motor neuron diseases deserve to have this information publicly shared with the community.

Not one of you, between any of the agencies at the lake, has taken this to heart and spread the truth about how cyanobacteria destroys lives. The signs posted around the lagoons don't even mention the lethality of the neurotoxins of cyanobacteria! Epidemiological statistics show one death per 50,000 residents. But I know of eleven people, one of whom was my boyfriend and another was my professor, who lived at Lake Tahoe and who have since died of ALS, a devastating and fatal motor neuron disease. When my boyfriend became ill and I was researching how he could have gotten sick, I ended up contacting Brain Chemistry Labs in Jackson Hole, Wyoming for answers. I spoke to Sandra Banack, one of the scientists, and when I told her about the Keys lagoons full of cyanobacteria blooms and the deaths, she told me that it is not possible to have this many people who have died in this small a community unless there is a cluster. If we did a real count of who has died and who is currently ill, we would find a cluster and the blooms in the Keys are in fact ground zero. It is interesting to see how the human side of this environmental disaster has been ignored, especially since the dangers of cyanobacteria have become a well-known focal point for the last twenty years in global scientific communities. In the last ten years there has been a rush to connect the cyanobacteria blooms with motor neuron diseases, especially since the ground- breaking

discovery in Guam by Dr. Paul Allan Cox, an ethnobotanist, and the work of Dr. James Haney in aerosolized studies of how cyanobacteria neurotoxins are airborne. But here in Tahoe, no one thought to connect the dots, that is, until I made the connection for you. No one figured out that living in or near the Tahoe Keys could be the death of you! None of this information was in your draft EIR. Nor was there a count of how many people in the Keys, South Lake Tahoe and the rest of the lake have died from motor neuron diseases or are currently ill. Nor was there a count of how many dogs that have died from swimming in the dogs over the years either. Just another prime example of the Tahoe Keys blatant disregard for accurate and honest research! What's even further disconcerting is how many times this connection between cyanobacteria blooms and motor neuron diseases was mentioned in community meetings over the last five years? So many that it blows my mind and yet you exclude this data in your EIR? I emailed you even more documents about cyanobacteria last summer after the June meeting and you still did not include that information in your EIR. What's the point of giving you valid scientific information when you do nothing with it? If that's the situation then responding to this EIR is a complete waste of time because you are not going to take my information or anyone else's seriously. People's lives are at stake and yet you ignore proven data and research. Having the privilege of a boat in their backyard is obviously more important than coming clean about the fatality of the cyanobacteria blooms in in their lagoons. Once the community understands the correlation between cyanobacteria blooms and motor neuron diseases it will become the BIGGEST issue you will have to confront because no one is going to stand by and let these selfish and ignorant homeowners use their cyanobacteria blooms to end the lives of the citizens of Lake Tahoe. Like I said, living in and near the Tahoe Keys may be the death of you, especially since the information has been well published in the scientific community. Not addressing this in your EIR is shameful. If you issue the Tahoe Keys a permit you will be just as irresponsible as the Keys, because you, as scientists, should know better than to pour herbicides into lagoons full of cyanobacteria. Herbicides cause cyanobacteria to release their toxins. Any scientist worth their weight knows this so I am wondering which "scientist" you consulted? Not Dr. Wayne Carmichael or Dr. Paul Allan Cox, two world renown experts in cyanobacteria research whom I referred to you on many occasions. Not them, right? Because they would have told you flat out how toxic cyanobacteria becomes when it is exacerbated by herbicides. Giving the Keys a permit for herbicides is a one-way ticket to hell for Lake Tahoe and its citizens. And your draft EIR, with its flawed, inaccurate and omissive research, just paves the way for this to happen.

Response to Comment CYB-8: See response to comments CYB-1 and CYB-16.

Comment CYB-9: Although that you claim that the herbicide application will be short term degradation, the long-term effects of killing native species and breaking open the cell walls of the cyanobacteria to cause more extensive and more potent blooms will be a long-term issue. The native species may not grow back and the cyanobacteria will become even more toxic, exceeding the water quality standards for Tier 3 waters. Producing a draft EIR reflective of the Tahoe Keys mindset fails the citizens of South Lake Tahoe and everyone else who lives at the lake because it fails to acknowledge that cyanobacteria is a crucial co-key element, not some tertiary issue. Cyanobacteria deserves a more thorough investigation by your scientists in how it affects the local community by causing motor neuron diseases. Understanding and acknowledging that herbicides cause the cyanobacteria cells to explode, thereby further releasing their toxins into the water and air would have been an accurate assessment had you included that in your draft EIR.

Response to Comment CYB-9: See comment response CYB-1.

Comment CYB-10: 09/03/2020 - What is Missing From Your Draft EIR:

- A comprehensive study of the cyanobacteria in the Tahoe Keys lagoons, including tests for ALL of the toxins, especially BMAA

- An aerosolized study of the cyanobacteria toxins
- A comprehensive study of all of the people who have died at Lake Tahoe area from motor neuron diseases.
- A comprehensive study and count of all of the dogs that have died from swimming in the lagoons. ~A comprehensive study of the interaction between cyanobacteria, fertilizer and Round Up.
- A comprehensive study of the potential interaction between cyanobacteria and the proposed herbicides.
- A complete list of all of the chemicals used on their lawns and property over the last 60 years and how they react with cyanobacteria.

Response to Comment CYB-10: See comment response CYB-1.

Comment CYB-11: ES.4.7 - Potential for cyanobacteria blooms and having it go airborne plus the mutation of weeds to become stronger is Significant and should be addressed.

Response to Comment CYB-11: See comment response CYB-1. Only a one-time testing of aquatic herbicides is proposed in limited areas as part of the CMT, therefore the risk of aquatic weed mutation and development of a resistance to the herbicides was not considered significant.

Comment CYB-12: Harmful algal blooms (HABs) and deadly cyanobacteria (blue-green algae) would be less likely to occur with non-chemical methods, since herbicides cause a faster die-off of submerged aquatic vegetation (SAV) and higher rates of nutrient release to the water column, increasing the likelihood of HABs and cyanobacteria. In addition, the prevalence of cyanobacteria is increased by the use of persistent organic pollutants, such as herbicides (Harris et al, 2016).

Response to Comment CYB-12: Although herbicides are expected to cause the dieback of aquatic plants rapidly, nutrient release could occur more rapidly from UV light treatment. As described in section 3.3.4 under Issue WQ-6, perhaps 50 to 60% of the total phosphorus and total nitrogen in decomposing plants would be available to the water column, with most of the phosphorus remineralization occurring within the first 20 days after plant dieback, and most of the nitrogen remineralization occurring in the first two to three weeks (Walter 2000). Paolucio (2020b) observed that plants took about 16 days to collapse after UV light treatment, and then a couple of more days to turn into a fine powder due to the UV radiation destroying plant cells. Although not definitive, this information suggests that the plants could decay and release nutrients more slowly after herbicide treatment compared to UV light treatment. Harris and Smith (2016) concluded empirically that water bodies with a relatively high loading of a broad group of persistent organic pollutants (including PAHs, pharmaceuticals, and other groups of chemicals in addition to herbicides) will potentially have higher relative cyanobacterial abundance relative to water bodies with relatively low loading. They also acknowledged that their survey of current literature found some studies that found other phytoplankton taxa were favored over cyanobacteria in the presence of these organic chemicals, indicating ambiguity concerning whether cyanobacteria were consistently favored. section 3.2 of the DEIR/DEIS under Issue EH-6 summarizes other information about the unpredictability of HABs and whether cyanotoxins are produced, and whether proposed testing of aquatic weed control methods would increase the occurrence of HABs. It was concluded that increased HABs occurrence is a potentially significant impact; therefore, mitigation measures and resource protection measures were identified to make conditions less favorable for HABs (i.e., aeration systems to increase water circulation and cool near-surface waters, treating plants when they are small to minimize biomass releasing nutrients), and a bentonite clay/lanthanum product was prescribed for use to remove phosphorus from the water column if HABs are observed at test sites.

Comment CYB-13: There are numerous findings of no significant impact in the Draft EIR/EIS lacking adequate justification or substantiation by analyses and references, which violates CEQA Guidelines. An example of this is the finding of no significant impact of the risk of HABs, including deadly cyanobacteria (blue-green algae), from the use of herbicides is not a significant impact, even though the likelihood of HABs and cyanobacteria increases with the use of herbicides. HABs have been a significant issue in the Keys in recent years.

Response to Comment CYB-13: See response to comment CYB-12.

Comment CYB-14: Issue EH-6, Harmful Algal Blooms (HABs), on page 3.1-3, states "The conditions that cause cyanobacteria to produce cyanotoxins are not well understood…" Yet, it is abundantly clear from a simple search of "conditions that cause cyanobacteria" that the answer is "calm, nutrient-rich waters." (World Health Organization 1999) The Center for Disease Control states "They usually multiply and bloom when the water is warm, stagnant, and rich in nutrients (phosphorus and nitrogen) from sources such as fertilizer runoff or septic tank overflows." And the USEPA states "There is widespread agreement within the scientific community that the incidence of HABs is increasing both in the U.S. and worldwide. This recent increase in the occurrence of HABs has been attributed to increasing anthropogenic activities and their interaction with factors known to contribute to the growth of cyanobacterial blooms. Point sources … and non-point sources (… roads and stormwater), may be high in nitrogen and phosphorus and can promote or cause excessive fertilization (eutrophication) of both flowing and non-flowing waters." (emphasis added) Yet this Draft EIR/EIS does not address the nutrient inputs to the lagoons and the accumulation of those inputs over 60 years of those inputs, but instead focuses on the cycling of nutrients into the water column from SAV decay. (see additional comments on Appendix F). The Draft EIR/EIS also ignores mentioning several cyanobacteria-related risks from herbicide use, such as:

- cyanobacteria become resistant to herbicides where their use is prevalent (Narusaka et al. 1998).
- 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),
- Cyanobacteria's use of nutrients bound to herbicides to stimulate their growth (Bai et al. 2014), and
- The presence of herbicides in elevated water temperatures increases cyanobacteria growth, Berard et al (1999).

Response to Comment CYB-14: Nutrient inputs to the lagoons are addressed in Section 3.3.4 under Issues WQ-6 and WQ-7, and in Appendix F. The cycling of nutrients into the water column from SAV decay is a focus of the DEIR/DEIS because the CMT and project alternatives aim to test the effectiveness and environmental effects of control methods that would kill the aquatic weeds. Proposed actions to test aquatic weed control methods have no potential to alter external nutrient sources. Regarding bullet list in comment: (1) nothing similar to the statement in the first bullet point was found in the lab studies from Narusaka et al. (1998); (2) references in the second bullet point are from studies of glyphosate and atrazine, herbicides that are not proposed for testing in the CMT, see also response to comment CYB-12; (3) a reference citation was not provided for Bai et al. 2014; and (4) a reference citation was not provided for Berard et al. (1999)

Comment CYB-15: Issue EH-6, Harmful Algal Blooms (HABs), on page 3.1-3, also states "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 1 µg/L for anatoxin-a or cylindrospermopsin. Warnings are posted if cyanotoxin concentrations reach 6 µg/L for

total microcystins, 20 µg/L for anatoxin- a, or 4 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." This statement raises the following questions and concerns:

- Is there routine testing for these toxins at the Keys? How many people at the Keys have been affected by exposure? If no health statistics have been gathered at the Keys, why haven't they been? This information would be critical to understanding the increased risks of HABs and cyanobacteria due to the initiation of herbicide use.
- The list of additional Project Resources on the Tahoe Keys website (www.tahoekeysweeds.org) includes Cyanobacteria Test Results, namely concentrations of microcystin and anatoxin-a. , The cyanobacteria water quality data collected in 2019 and displayed in Appendix E are concentrations of phycocyanin pigment, not concentrations of toxins. (Hollister, et al., 2016) The relationship of phycocyanin measurements to microcystin concentrations is not discussed in Appendix E. Health advisories are always issued for toxins like microcystin, not for related concentrations of pigments. The phycocyanin measurements, apparently difficult to relate to cyanobacteria concentrations, are not interpreted in the Draft EIR/EIS at all. The Revised Draft EIR/EIS should rectify this omission. What do the phycocyanin measurements in Appendix E signify in terms of cyanotoxin levels?
- Signs warning of "Harmful Algae" are posted at many locations in the Keys and appear to be posted at least all summer for the last several summers. When warning signs are always present, people tend to ignore them, which is very likely the case in the Keys.

Response to Comment CYB-15: See response to comments CYB-1 and CYB-12 regarding the approach to evaluating the potential effects of Proposed Project activities on HABs. TKPOA staff are trained in recognizing visual indicators of HABs, and they routinely collect samples of suspected HABs that they observe or that are reported by others in the Tahoe Keys lagoons. Samples are analyzed by an independent contract laboratory, and the cyanotoxin concentrations have not reached "warning" levels. The DEIR/DEIS for testing aquatic weed control methods did not study human health statistics related to cyanotoxins. We assumed that any increase in the occurrence of HABs as a result of project activities would be a potentially significant impact. Therefore, mitigation measures and resource protection measures were built into the CMT and an algae treatment product (bentonite clay/lanthanum) was prescribed in the event that a HAB were to occur at a test site during the period of aquatic plant decomposition following treatments. Phycocyanin measurements were collected as part of the baseline data collection in 2019 and provided in Appendix E but were not ultimately used in our approach to address the HABs issue in the DEIR/DEIS. We relied instead on information from HABs monitoring and contract laboratory test results provided by the LWB and TKPOA staff. Harmful algae signs posted in the Keys are intended to discourage swimming in the lagoons. Additional signage and other public notice measures are taken if cyanotoxins are found at caution levels. Concentrations in the lagoon samples have not exceeded "warning" levels.

Comment CYB-16: HABs and cyanobacteria are a major concern at the Keys and the Draft EIR/EIS does not adequately examine all the risks posed by the use of herbicides as stated in the previous comment. Stagnant, warm, nutrient-rich waters, like the waters of the Keys lagoons, promote the growth of cyanobacteria and the production of cyanotoxins. The CMT would not test any methods for abating these conditions. The application of herbicides, which kill the plants quickly, releases nutrients to the water column much more rapidly than slower-acting non-chemical methods release them. The LFA method may partially abate this condition, but the LFA method should be fully tested first, prior to the overly risky method of herbicide application. The proposed mitigation, applying the herbicides in the spring, is an insufficient mitigation measure, particularly because it appears that the volumes of macrophytes present in the spring have not been measured. There are no

assurances that this mitigation measure will reduce the risk to less than significant if there are no estimates of the volumes of macrophytes that will die off and release nutrients. Therefore, herbicide use creates a potential for rapid release of nutrients and a dangerous and unmitigated risk of HABs, including deadly cyanobacteria, a violation of the Basin Plan's water quality objective for biostimulatory substances. Even short-term degradation is not allowed if that degradation violates any water quality objectives.

Response to Comment CYB-16: The CMT and alternatives would test aquatic weed control methods and not HABs control methods. The project is not designed to be a test of cyanobacteria control methods. See response to comment CYB-12 regarding expected timing of nutrient releases to the water column after different treatments, including the potential for nutrients to be released faster following UV light treatment compared to herbicide treatment. Cyanobacteria have also been detected at the 6-acre LFA test site established in the spring of 2019 in the West Lagoon, so the effectiveness of LFA in abating conditions favorable to cyanobacteria growth require further testing. See response to comment CYB-17 regarding spring macrophyte surveys. Aquatic weeds emerge in the spring and reach full growth in the summer, so estimates of plant volumes at different growth stages are not needed to know that there will be less plant biomass decaying and releasing nutrients if the treatments occur in the spring instead of the summer. However, because there are no assurances that this timing measure will reduce risks of increased HABs to less than significant, additional resource protection measures and mitigation were deemed necessary. Monitoring during and after treatments would include observations for HABs 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 treating with Lanthanum modified clay (e.g., Phoslock) may be used to lower concentrations of phosphorus, a nutrient essential to cyanobacteria growth. Also see response to CYB-3 and WQO-G1.

Comment CYB-17: EH-6, Harmful Algal Blooms, on page 3.2-2, suggests that the plant biomass that would decay and release nutrients will be minimal because the applications would occur in "the late spring when plant biomass that would decay and release nutrients is minimal". Are there studies supporting this assumption? According to the Aquatic Macrophyte Survey Report, which surveyed the Keys during June and July of 2016, "The hydroacoustic data showed that the abundance and biovolume of plants in the Tahoe Keys in 2016 was substantial and that more than 85% of the water volume was filled with plant matter. This is an increase over last year and, in addition, point sampling data shows that the amount of curlyleaf pondweed has increased substantially from prior years." Apparently, no macrophyte surveys have been performed in the late spring; the above Report states, "Due to the short growing season in Lake Tahoe and the germination and sprouting timing of the aquatic plants of concern, only one period of data collection is considered sufficient to assess relative abundance." Apparently, that one period of data collection is June and July. There is no evidence to support the assumption that late spring is the best time to apply herbicides to minimize the risk of HABs.

Response to Comment CYB-17: While the annual TKPOA Aquatic Macrophyte Survey Reports prepared to fulfill Integrated Management Plan requirements focus on the year-to-year comparisons of hydroacoustic surveys and point-count surveys conducted between the last few days of June and mid-July each year, additional hydroacoustic surveys have been performed earlier in the growing season. A May 22, 2020, hydroacoustic survey found an average biovolume of 21.7% in the West Lagoon; compared to July 21, 2020, biovolumes of 50.5% (west half of West Lagoon) and 45.6% (east half of West Lagoon); and 68.4% in the West Lagoon on September 17, 2020. These indicate that the volume of aquatic weeds that could die back and decompose in the spring could be approximately one-third to one-half the volume that would die back and decompose if treated in the summer.

Comment CYB-18: Cyanobacteria is also discussed on page 3.2-4 repeating what was said on page 3.1.3. Dr. Wayne W. Carmichael has contended that (a) starting the use of herbicides sets up a condition where they become needed in the long term, and (b) the potential for cyanotoxins increases if macrophyte control is not combined with reductions of nutrients and other water quality improvement measures.

Response to Comment CYB-18: This project proposes only a one-time test of aquatic herbicides. Any future proposed use of aquatic herbicides would require a separate regulatory approval process. The CMT proposes to implement water quality improvement measures (i.e., aeration systems that would increase water circulation and decrease near-surface temperatures) in combination with herbicide testing, and TKPOA is undertaking additional nutrient reduction measures under their Waste Discharge Requirements. See response to CYB-16.

Comment CYB-19: Issue EH-6, Harmful Algal Blooms (HABs) under Environmental Setting for the Proposed Project (page 3.2-6) states: "Cyanotoxins were detected at all six LFA treatment sites (all within Site 26 shown on Figure 2-4) between July and September (cyanotoxin concentrations were 0.11-18.07 µg/L anatoxin-a and 0.15-0.33 µg/L microcystin)." The discussion also states "Water samples from the Tahoe Keys were also collected by TKPOA for cyanotoxin analysis at six stations in August 2017 and 19 stations in May through September 2018 (TKPOA 2020). Cyanotoxin concentrations were 0.13-2.84 µg/L anatoxin-a and 0.12-0.23 µg/L microcystin (Otten 2017 and 2018)." These data should have been included in the appendices; they were not. This omission must be remedied in a revised Draft EIR/EIS.

Response to Comment CYB-19: The data that the commenter requests is adequately summarized in the DEIR/DEIS on Section 3.2-6. The original data reports are publicly available.

Comment CYB-20: The reference to "California's guidelines [for cyanotoxins]" should be clarified. The guidelines are discussed earlier in section 3.2.

Response to Comment CYB-20: The reference was to California guidelines for cyanobacteria and cyanotoxins in recreational inland waters.
https://mywaterquality.ca.gov/habs/resources/habs_response.html

Comment CYB-21: Issue EH-6, Harmful Algal Blooms (HABs), (pages 3.2-14) states "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)." (emphasis added) The statement should have said almost all of these factors exist in the Keys, and the significant factors in parentheses should have included stagnant or slow-moving surface water, high temperatures, water column stratification, and changes in pH because "[b]aseline monitoring in the West Lagoon and Lake Tallac has documented periods of elevated nutrient concentrations in near-surface water samples, high water temperatures, water column stratification, and fluctuations in pH (ESA 2019)." The statement should also have mentioned "excess nutrients" based on the fact that "[a]nnual average values for TN and TP in the Tahoe Keys exceeded their relevant WQOs for each year from 2007 to 2013 (SEA 2017a). In 2016, even the minimum values recorded for TN and TP exceeded relevant WQOs for the Marina Lagoon, the Main Lagoon and Lake Tallac. Clearly, the Tahoe Keys lagoons should be considered "enriched" with nutrients." (Appendix F, page F-1) (emphasis added) This omission must be remedied in a revised Draft EIR/EIS.

Response to Comment CYB-21: The statement was edited to acknowledge most factors that influence the occurrence of HABs were documented in the Tahoe Keys during 2019 baseline monitoring and other studies.

Comment CYB-22: Issue EH-6, Harmful Algal Blooms, (page 3.2-14 and 15) lists numerous uncertainties including "Tomasko (2020) suggested that care should be taken in terms of SAV management, so that the nutrient contents of treated SAV do not become available in the water column in such a manner as to be able to initiate HABs and their potential health risks." And "Due to the unpredictable nature of HABs and consequent production of cyanotoxins from HABs, there remains uncertainty around whether and to what extent these would occur and whether they would cause unavoidable increases in the risk of exposure to cyanotoxins as a result of the release of nutrients…" Yet, this section concludes that "the risk of increased HABs is considered less than significant" because the herbicides will be released in the spring. However, no surveys have been provided to substantiate this claim, no estimates have been provided of the mass of SAV present in the late spring, and no estimates of nutrient surge from the use of herbicides have been provided. Therefore, the conclusion that the risk of increased HABs is considered less than significant is unsupported. This section includes discussion of LFA, yet this non- chemical method is known (and the Draft EIR/EIS even states this elsewhere) to kill the weeds more slowly, so that the nutrient release is slower and the risk of HABs is not as great with these methods. Based on this lack of estimation of water-column nutrient loading after a spring herbicide treatment, the less than significant impact should be corrected to significant impact, since not enough evidence is provided to substantiate the less than significant claim. A statement of overriding considerations must be prepared.

Response to Comment CYB-22: See responses to comment CYB-1, CYB-3, and CYB-17.

Comment CYB-23: Cyanobacteria was left out of the environmental document and is an important part of this. It's not a good idea to add herbicides to cyanobacteria blooms. She said there is information missing on cyanobacteria from the environmental document. There needs to be a comprehensive study of cyanobacteria in the lagoons, including tests for all of the toxins and beta-Methylamino-L-alanine (BMAA). A comprehensive study of the aerosolized toxin BMAA from the cyanobacteria blooms are airborne. A comprehensive epidemiological of all the people who have died in the Lake Tahoe area from motor neurone diseases. She called the public health department and they have no record of these deaths. There should be a comprehensive study of the dogs and animals that have died from swimming in the lagoons, a study of the amount of fertilizer and Round Up in the lagoons, and a study of all the potential interactions between cyanobacteria fertilizer and Round Up in the lagoons. As well as the interaction with herbicides, and a list of all the chemicals in the lagoons that the homeowners have used on their properties over the past six years and how they react with cyanobacteria. People have died from Parkinson's and ALS at this Lake and no one is paying attention. Paul Alan Cox, Ph.D., Brain Chemistry Labs in Jackson Hole, Wyoming made a definitive connection between cyanobacteria blooms and motor neurone diseases. Jim Haney, Department of Biological Sciences at the University of New Hampshire has captured these aerosolized BMAA toxins around these blooms. This needs to be studied before anyone thinks about using herbicides in Lake Tahoe. She's the one who introduced Brian Kling, CLEAN FLO for the laminar flow aeration four years ago. You need to give him more time, it's taken 40 years for these weeds to grow and may take another three to five years to get that laminar flow aeration working.

Response to Comment CYB-23: See response to comment CYB-1 and Master Response HER-G1

ENVIRONMENTAL HEALTH AND PROTECTION

Comment EH-1: Page 3.2-10, states Compounds with "acute values >100 ppm are classified as "practically non-toxic" (the best possible rating)." The inclusion of the parenthetical "best possible rating" seems to indicate a bias, rather than just leaving the description with the regulatory agency's description: "practically non-toxic." Recommend that the "best possible rating" and "second best classification" be deleted.

Response to Comment EH-1: The parenthetical descriptors were pulled directly from the regulatory agency (i.e., Washington Department of Ecology) source document. (Ecology's source document was used as the most recent evaluation of toxicity of these chemicals, which included review of the USEPA repository of information on the chemicals.)

Comment EH-2: EH-3f, page 3.2-16 indicates that a mobile filtration system would also be available to pump and treat water at wells where exceedances are detected above drinking water standard concentrations. If endothall or triclopyr are detected (not just above the MCL for endothall) the water should be treated and residents/homeowners should be notified that herbicides were detected. Otherwise asking the residents to drink the excess herbicide.

Response to Comment EH-2: See Response WS-G1.

Comment EH-3: Under the Proposed Project, Issue EH-5, the discussion assumes that for aluminum concentrations, "fish and other aquatic life are generally able to swim away and avoid exposure." While fish could be expected to leave an area during a period of test activities, there is little evidence provided in the discussion that substantiate that fish would stay away, and the possibility that they could return to an area still impacted by elevated levels of aluminum.

Response to Comment EH-3: Cold water fish and other aquatic life that are sensitive to aluminum are also sensitive to elevated turbidity. Avoidance is the primary fish behavioral response to locally turbid water (DeVore et al. 1980; Birtwell et al. 1984; Scannell 1988). All life stages of salmonids have been observed to prefer clear water when given the option of clear or turbid water (Bisson and Bilby 1982). By avoiding areas with high turbidity aquatic life would also be avoiding areas where aluminum may also be elevated. See related response to comment EH-7 and Master Response EH-G1.

Comment EH-4: Due to the uncertainty of health risks involved with herbicides, we are hesitant to move forward with experimental methods of the three herbicides Penoxsulum, Triclopyr, and Endothall introduced into the Lake Tahoe Keys. Byproducts of herbicides are associated with endocrine disruptors, and even in low doses are unsafe. Experimenting with these herbicides could have the potential for contaminating the natural water resource and creating long-term health effects. According to the articles by the Wisconsin Department of Natural resources on the three herbicides to be introduced, Penoxsulum is classified as suggestive evidence of carcinogenic potential and may be required by the USEPA to undergo additional testing for endocrine disruptors. For Triclopyr and Endothall, there is no consistent pattern and insufficient evidence at this time to list as a carcinogen. This suggests that further testing should apply before experimenting in Lake Tahoe.

Response to Comment EH-4: Penoxsulam has been dropped from consideration due to the longer contact time that it requires. Because the exposure of humans to harmful concentrations of herbicides and degradants is only a potentially significant concern to workers that are handling and applying the herbicide products, potential direct exposure of other people to herbicides is not evaluated as a separate issue due to a lack of exposure routes. Herbicide products were selected to target aquatic weed species in Tahoe Keys lagoons and minimize potential effects to non-target

plants, animals, and people; only herbicides approved USEPA and CalEPA are considered for use. Endothall and triclopyr are currently used throughout the United States, including in California, to control the same aquatic weeds found in the Tahoe Keys lagoons.

Comment EH-5: The EIR's Evaluation of "Environmental Health" Impacts Falls Outside the Scope of CEQA and the TRPA Statutes. Laws governing environmental review, including CEQA, require agencies to disclose and mitigate for impacts in a number of enumerated categories, including water quality, air quality, transportation, and public utilities (to name a few). In response to public comments and concerns, the DEIR/EIS considers additional categories of impacts, including "environmental health" impacts. While TKPOA recognizes that analysis of potential health impacts is of interest to the public and stakeholders, it is important to note that this analysis is not required under CEQA nor the laws governing TRPA and is not relevant to the legal adequacy of the DEIR/EIS. Despite the above points, TKPOA concurs with the findings of the DEIR/EIS that there are no significant potential environmental health effects associated with the Proposed Project.

Response to Comment EH-5: Neither CEQA nor TRPA are limited in their pursuit of the evaluation of any pertinent environmental impact in their consideration of a project or alterative (other than CEQA's direction to focus on the physical environment - TRPA is not so limited). The intent of both regulations is to disclose and consider pertinent impacts. The assertion that an impact is not "required" does not constitute a prohibition against analyzing any pertinent impacts of a project. The Lead Agencies believe that the document is legally adequate. TRPA's Initial Environmental Checklist requires consideration of environmental health.

Comment EH-6: Issue EH-4 also states: "Application of aquatic herbicides can be expected to cause some mortality of non-target native aquatic plants within treatment areas, but the herbicides proposed for testing in Tahoe Keys lagoons would have no significant acute or chronic impact on people, fish, or freshwater invertebrates when used at recommended rates." The Draft EIR/EIS does not contain any data or references supporting this statement. "Some mortality of non-target native aquatic plants" is a violation of the toxicity water quality objective that would not occur with non-chemical methods.

Response to Comment EH-6: Data and references supporting the statement are provided on pages 3.2-10 through 3.2-13. Note also that limited mortality of non-target plants and benthic macroinvertebrates within test sites would be expected from UV light applications or the use of bottom barriers, as described in Section 3.3.5. Also see Master Response WQO-G1.

Comment EH-7: Issue EH-5, Short-term Increases in Aluminum Concentration, page 3.1-2, states: "To enable calculation of site-specific criteria for toxicity to aquatic life, surficial sediment samples were collected from the Tahoe Keys lagoons in 2019. Elutriate tests were conducted to mimic conditions that could occur in overlying water during dredging. Samples of overlying water were also collected and analyzed for dissolved organic carbon, hardness, and pH. Aluminum freshwater acute criteria (Criterion Maximum Concentrations or CMC) calculated for the lagoons ranged from 610 to 2,400 µg/L. Short-term exposure to total recoverable aluminum concentrations above these acute criteria could cause harm to aquatic life." There are no references to the calculation of the criteria; even the location of the results of the elutriate tests is missing. The results show that the aluminum concentrations measured by elutriate tests exceeded both chronic and acute criteria for four of the eight Marina Lagoon stations and five of the eight Main Lagoon stations. The highest exceedance was 2000% of the corresponding criterion. How can these exceedances possibly be considered "short-term"?

Response to Comment EH-7: Section 3.1 is an overview of the environmental issues that are

evaluated in the remaining sections of Chapter 3. The results of the elutriate tests are provided in Table 3.2-1. USEPA aquatic life criteria for aluminum are found at the following website, including the calculator that was used to generate site-specific criteria: https://www.epa.gov/wqc/aquatic-life-criteria-aluminum. The aluminum in the lagoons resides predominantly in the sediments and the potential for exceeding aluminum criteria in the water would occur only sediment disturbance indicated by high levels of turbidity. Only short-term exceedances would be expected because real-time turbidity monitoring would be used to shut down sediment disturbing activities and change methods or the rate of work whenever turbidity reached trigger levels, similar to existing WDR by permit conditions. Elevated levels of aluminum in the sediments are part of the baseline environmental condition. See related Master Response EH-G1.

Comment EH-8: EH-5, Short-term Increases in Aluminum Concentrations, (page 3.2-2) states "Information on existing concentrations of aluminum were summarized from available studies. The aluminum concentrations were then compared to USEPA's acute and chronic water quality criteria for the protection of aquatic life." No references to these studies are provided; thus, the reader is not provided the information needed for corroboration of the evidence, analyses, and conclusions.

Response to Comment EH-8: Samples of sediment and overlying water were collected at five stations in the West Lagoon for elutriate tests of total recoverable aluminum as part of the 2019 baseline hydrology and water quality data collection (ESA 2019, Appendix WQ-1). The 2018 ambient water quality criteria for aluminum are available at https://www.epa.gov/wqc/aquatic-life-criteria-aluminum. See related response to comment EH-7 and Master Response EH-G1.

Comment EH-9: Issue EH-5, Short-term Increases in Aluminum Concentrations, (page 3.2-5) states that "high aluminum concentrations may be due to the historical use of aluminum sulfate (also known as alum)…" (emphasis added) There is known extensive use of alum during the development of the Keys in the late 1950s and 1960s. This document should have examined historical references to find out how much was used and this must be addressed in a revised Draft EIR/EIS.

Response to Comment EH-9: Information on historical sources of the existing aluminum in Tahoe Keys were not needed to determine baseline conditions and evaluate environmental effects of the Proposed Project and alternatives. See related response to comment EH-7 and Master Response EH-G1.

Comment EH-10: Table 3.2.1, on page 3.2-6, shows the aluminum elutriate sample results collected from the Tahoe Keys West Lagoon in 2019 compared to calculated site-specific acute and chronic Water Quality Criteria for the Protection of Aquatic Life. However, the footnotes to the table indicate that three of the five samples were stored at holding temperatures exceeding Quality Assurance Project Plan (QAPP) guidance, and the results of two samples may be biased low because the sediment samples were diluted with site water. Nevertheless, aluminum concentrations in samples from three of the five West Lagoon stations still exceeded both chronic and acute criteria for total recoverable aluminum.

Response to Comment EH-10: The comment correctly cites information from the DEIR/DEIS. These sample results were evidence of a potential impact that was addressed in Section 3.2 as Issue EH-5. Also see Master Response EH-G1.

Comment EH-11: Issue EH-2, Detectable Concentrations of Herbicides and Degradants in Receiving Waters, beginning on page 3.2-7, discusses the three herbicides proposed for use. There are a number of issues with this section of the Draft EIR/EIS, including the following:

- See attached comments from Beyond Pesticides, which were previously incorporated in these comments by reference.
- There is no discussion of the inert ingredients for each of these herbicides.

Near the top of page 3.2-8, the following statement is made: "Complete degradation by microbial action is within 30-60 days (WDNR 2012a). When endothall 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, results in a loss of microbial activity and longer half- lives (USDA 2009)." (emphasis added) No further discussion of these longer half-lives is provided in the document, even though the lack of microbial activity in an oxygen-depleted environment would seem to be a critical and likely scenario of much lower and longer degradation rates, and the herbicide and/or its degradants being present for many months. This is further evidence that antidegradation requirements would not be satisfied.

Response to Comment EH-11: Information on the inert ingredients found in formulations proposed for use have been added to the FEIR/FEIS, as reported on the product label. Section 3.3.4 of the DEIR/DEIS evaluated potential effects of proposed herbicide products, including their inert ingredients, on water quality (e.g., oxygen demand, pH). Toxicity studies for product registration evaluate the combined effects of both active and inert ingredients. Table 2-2 states that no adjuvants (i.e., additives to enhance herbicide activity) would be used. Information on other ingredients is proprietary and not available. Aeration systems would be deployed following herbicide or UV-C light 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. Also see responses HE-91 and HE-134.

Comment EH-12: The "less than significant" finding on the top of page 3.2-9 for Issue EH-2 is inaccurate for the reasons stated above as well as the following:

- These herbicides, upon release, violate the toxicity and chemical constituent water quality objectives. See comments under General Comment 15 above. Therefore, the release of these chemicals cannot be justified under antidegradation regulations according to the Administrative Procedures Update for the Antidegradation Policy Implementation for NPDES Permitting, which prohibits a proposed discharge if a water objective is violated.
- The Basin Plan's prohibition exemption criteria for pesticides requires that the failure of all available non-chemical methods be demonstrated prior to an exemption being granted. The non-chemical methods have not been thoroughly tested in the Tahoe Keys; therefore, the finding that they have failed cannot be made.
- The less than significant impact determination is incorrect and should be corrected to significant impact in a revised Draft EIR/EIS. A statement of overriding considerations must be prepared.

Response to Comment EH-12:
See responses to AQU-09, AQU-13, and master responses ALT-G2, WQO-G1, and AA-G1.

Comment EH-13: The discussion of Issue EH-4, Introduction of Toxic Substances into the Environment, beginning on page 3.2-10, is severely flawed. The toxicity water quality 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." And, "The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge…" (emphasis added). The chronic toxicity to other organisms is not discussed in the Draft

EIR/EIS and should be included in the revised Draft EIR/EIS. See the full comment letter (attached) from Beyond Pesticides' Senior Science and Policy Analyst, Leslie Touart, Ph.D. Excerpts from the letter are as follows:

Regarding Triclopyr: "The most common breakdown product of triclopyr in mammals, as well as in soil and water, is 3,5,6-trichloro-2-pyridinol (TCP)1 and also, of note, the highly toxic and controversial organophosphate insecticide chlorpyrifos which is banned in California…. TCP also poses an environmental hazard as it is "very mobile" in a variety of soil types and is also often more persistent than triclopyr itself."

Regarding Endothall: "Persistence (half-life) of the endothall acid (active ingredient) is expected to be <10 days in treated areas, however in USEPA's exposure assessment2 for direct application of Aquathol K to an impoundment with an initial target exposure of 5 mg/L, the Estimated Exposure Concentration (EEC) at subsequent time intervals post-application was:

- 4-day = 4.7 mg/L
- 21-d = 3.8 mg/L
- 60-day = 2.4 mgL
- 90-day = 1.8 mg/L.

These concentrations would be expected to represent the upper bounds for endothall concentrations in the immediate vicinity of the weed control project endothall treatment sites. These concentrations pose a severe risk to finfish as significant reductions in survival, length, and wet weight were reported in a 28-day fathead minnow early life stage test at 2.6 mg/L for endothall acid which exceeds the relevant EEC.3"

Regarding Florpyrauxifen-benzyl (ProcellaCOR EC liquid: "A key confounder is that florpyrauxifen-benzyl is a difficult-to-test substance with maximum native solubility of ~ 15 µg/L and only around 50 µg/L with use of a cosolvent.4 Although no mortalities to aquatic animals were observed up to solubility limits in acute exposures, certain sublethal effects were recorded. In chronic exposures, the mysid (Americamysis bahia) and midge (Chironomus dilutus), toxic effects were recorded at the lowest concentrations tested (lowest observed adverse effect level [LOAEC] 1.1 µg/L and LOAEC 4 µg/L respectively) such that No Observed Adverse Effect Concentration (NOAEC) values could not be determined. Therefore, statistically significant effects below concentrations of 1 to 4 µg/L can be expected.5 Albeit the maximum label rate for the PorecellaCOR EC liquid is 50 µg/L, the maximum proposed rate for the project is listed as 3 µg/L which would indicate a potential threat to aquatic invertebrates with similar sensitivities, such as the mysid Mysis relicta which can be found in the Tahoe Keys lagoons."

Response to Comment EH-13: The CMT proposes a one-time application of herbicides, this would not trigger chronic exposure. See master responses ALT-G2 and WQO-G1.

Comment EH-14: Issue EH-5, Short-term Increases in Aluminum Concentrations (page 3.2-20), state that "the potential impact of Action Alternative 2 on aquatic biological communities would be less than significant and these areas would be rapidly repopulated." No scientific basis for this conclusion is stated. Fish and other aquatic organisms cannot escape outside the turbidity curtains. There are no core samples of the sediments from which the levels of aluminum that would be released could be estimated. The conclusion of less than significant impact is entirely based on the relatively small area to be tested. However, the area proposed for dredging is 5.54 acres, which is not a small area. Relying on the statement that "these areas would be rapidly repopulated" is

unacceptable. The expected mortalities of fish and other aquatic organisms are a significant impact, and the potential impact conclusion should be changed to significant.

Response to Comment EH-14: CEQA requires that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed. (14 CCR 15126.6[d].). THe EIR provides that level of detail. The key word in the referenced statement is communities. While suction dredging would remove some individual aquatic plants and animals from approximately 5 percent of the West Lagoon area, there is nothing about the dredging that would make these areas uninhabitable for rapid repopulation with communities of flora and fauna. Overall communities of plants and animals would not be sigificantly impacted. Core samples would not provide any information on the levels of aluminum that could be released. See related response to comment EH-7 and Master Response EH-G1.

Comment EH-15: EH-5b, Treatment and testing of dewatering effluent (page 3.2-20) discusses discharging dewatering effluent from suction dredging to either the sanitary sewer system or Lake Tallac. Neither of these disposal options for dredging fluids seems plausible or realistic. STPUD will most likely refuse to take the huge amounts of sediment-laden water that their treatment plant was not designed to treat. Lake Tallac receives stormwater from the surrounding city, and its capacity is likely insufficient to handle the enormous amounts of water that suction dredging produces. The scenarios of the suction dredging alternative are neither very well- thought out nor realistic, and this alternative is not worthy of serious consideration.

Response to Comment EH-15: Acceptance of treated (no longer sediment laden) dewatering effluent by the STPUD would be a decision of their Board of Directors. Suction dredging would be performed during the summer after the snowmelt runoff season and when rainfall is minimal. In the event of an unusual storm resulting in substantive stormwater inflows to Lake Tallac, suction dredging could be susupended to preserve capacity in the on-site treatment system until storm flows passed and water levels receded in Lake Tallac.

Comment EP-1: Would you like your grandchildren to experience the wonder of Lake Tahoe? Would you like to continue being able to drink water and breathe air? Our decisions now will either fix the mistakes of the past or produce a planet where are children and their children will die miserable deaths.

Response to Comment EP-1: Please see response to comment GEN-G1.

Comment EP-2: Please do not move forward with a plan that could poison gorgeous Lake Tahoe; that would be a travesty.

Response to Comment EP-2: Please see response to comment GEN-G1.

Comment EP-3: Lake Tahoe is a treasure that must be preserved. Please don't compound the mistake made in the 60's with another today.

Response to Comment EP-3: Please see response to comment GEN-G1.

Comment EP-4: The environmental integrity of this national treasure is very important. We must safe guard it.

Response to Comment EP-4: Please see response to comment GEN-G1.

Comment EP-5: Lake Tahoe is a precious natural resource that must be protected for wildlife and future generations.

Response to Comment EP-5: Please see response to comment GEN-G1.

Comment EP-6: No no NO !!! There will be NO pollution if the Waters !!!! No !! No more fertilizer, herbicides, pesticides or other cides !!! No!

Comment EP-6: No no NO !!! There will be NO pollution if the Waters !!!! No !! No more fertilizer, herbicides, pesticides or other cides !!! No

Response to Comment EP-6: Please see response to comment GEN-G1.

Comment EP-7: Lake Tahoe is too special and unique to be threatened by the interests of boat owners. The health of the lake's natural ecosystem is of prime importance.

Response to Comment EP-7: Please see response to comment GEN-G1.

Comment EP-8: Please protect and preserve our great outdoors. During this time many of us seek peace and refuge in our environment, please maintain for generations to come.

Response to Comment EP-8: Please see response to comment GEN-G1.

GENERAL

Comment GEN-1: I have visited and loved Lake Tahoe for many years. It is a jewel in the crown of our nation. Each one of us is a steward of this precious jewel. Please do not shine a portion of this jewel only to crush the rest. There are solutions, yes, they may take longer but ultimately, we all love and care for this beautiful lake and want to enjoy it today and long into the future. Think wisely, take careful action that protects the lake for our children's children. Thank you.

Response to Comment GEN-1: See Master Responsess GEN-G1,WQ-G1, and REG-1.

Comment GEN-2: We need to keep Tahoe safe for people and fish.

Response to Comment GEN-2: See responses GEN-G1 and WQ-G1.

Comment GEN-3: The Tahoe Keys is a huge human blunder. If it is allowed to continue it will mean the complete devastation of a national treasure. We have enough environmental problems already. Do away with the Tahoe Keys.

Response to Comment GEN-3: See responses GEN-G1 and RES-R1.

Comment GEN-4: Lake Tahoe is a sparkling jewel. Always a reward for the drive through the mountains any time of the year. It matters to me and to my family because we come here to enjoy all it has to offer and to marvel at its clarity. My nephew, now 50, first saw Lake Tahoe at age 12 and kept failing at windsurfing because he kept exclaiming 'I can see all the way down!' and falling off. We need Lake Tahoe to keep sparkling.

Response to Comment GEN-4: See responses GEN-G1 and WQ-G1.

Comment GEN-5: We must perfect ways to protect what goes into Lake Tahoe A closed system needs special attention especially if it has a lot of activity around it. We must keep this beautiful Pearl pristine for our future.

Response to Comment GEN-5: See responses GEN-G1 and WQ-G1.

Comment GEN-6: As a senior life scientist and biomedical researcher, I really appreciate the value of pro-active actions. They save money, time and irreplaceable life. Be pro-active. Take a stand that is worthwhile and do it now.

Response to Comment GEN-6: Thank you for your comment.

Comment GEN-7: The pristine nature of this natural environmental region is far too valuable in terms of recreational and aesthetical value to the American People and the international community of tourists that provide a significant economic boost to the local and California state economy to be jeopardized and sacrificed for a reason as petty as avoiding the relatively minuscule cost of environmentally sound physical weed extraction labor. Simply put, our state's natural treasures that provide us personal and community-wide economic, recreational, and spiritual value are not comparable to the avoidance of petty costs to maintain artificial development landscaping at the will of the extreme minority of property owners and property managers who chose to live and invest in

this community that should be privileged stewards of this immaculate and highly treasured locale that we love and cherish for its pristine natural environmental quality above all.

Response to Comment GEN-7: See responses GEN-G1, AWM-G2, and CST-G1.

Comment GEN-8: I spend a wonderful few days at Lake Tahoe near the start of a cross-country trip. It's a glorious place and its pristine beauty must be protected.

Response to Comment GEN-8: See response to comment GEN-G1

Comment GEN-9: Because Tahoe is one of the world's most beautiful and valuable places. The Keys should never have been built in the first place. They were told that by scientists back then. The only wetlands in the lake, a natural filtration system and GREED won. They built this multi-million dollar houses and now they want to further damage her. STOP IT. STOP IT RIGHT NOW!!!!!!

Response to Comment GEN 9: See responses GEN-G1, RES-R1, and WQ-G1.

Comment GEN-10: We must keep the Lake pure for future generations, as well as our own. Environmentally sound measures must be done to keep it that way. Take the long term approach, which guarantees success!

Response to Comment GEN-10: See responses GEN-G1 and WQ-G1.

Comment GEN-11: As a lifelong coastal, rural northern Californian and one of your 39,000,000 employers I trust that we agree Lake Tahoe remains a unique ecosystem.

Response to Comment GEN-11: See response GEN-G1

Comment GEN-12: It is time to tell the rich that they cannot do whatever they want—putting our lives and environment in danger-because they have the money. Nature belongs to The People, not the rich. We The People need to put the rich in their place. Enough already!!

Response to Comment GEN 12: See response to comment GEN-G1.

Comment GEN-13: Unintended consequences could be disastrous. Exercise prudence!

Response to Comment GEN-13: See response to comment GEN-G1.

Comment GEN-14: I first went to vacation at Lake Tahoe when I was 16. The water was crystal clear. I'm now 74, and I want to keep it that way. The natural beauty of Lake Tahoe should take priority over the convenience of developers.

Response to Comment GEN-14: See responses GEN-G1 and WQ-G1.

Comment GEN-15: We are happy to see that the Proposed Project has less than significant impacts to env. health, water quality, and aquatic biology.

Response to Comment GEN-15: Thank you for your comment.

Comment GEN-17: This draft environmental review was well written and easy to understand despite all its technical information, science backing, and everything else involved. Its science based and pragmatic approach to this exploratory and innovative solution for the Tahoe Keys is ambitious but achievable.

Response to Comment GEN-17: Thank you for your comment.

Comment GEN-18: I've only had the opportunity to visit Lake Tahoe once, but it had a big impact on me! It's a beautiful place and my friends who live in the area report they're lucky to live there.

Response to Comment GEN-18: See Master Response GEN-G1.

Comment GEN-19: I live in Sparks. As much as I would love to be able to afford a house in Tahoe, it is not worth jeopardizing the natural beauty and preservation of Tahoe. I would rather drive or pay for a hotel then see Tahoe poisoned! I realize with less houses available, the more expensive the current houses will be. Supply and demand. However, Tahoe is so special because of its beauty and uniqueness. Don't poison our lake. Keep Tahoe blue and beautiful. And less populated if possible!

Response to Comment GEN-19: See responses GEN-G1 and WQ-G1.

Comment GEN-20: I love Lake Tahoe. I lived there after High School and before college, in Las Vegas. I've skied on almost every mountain there. Its beauty is unmatched and should be protected at all costs. Please take the necessary measures to ensure Lake Tahoe's waters remain pristine and unpolluted.

Response to Comment GEN-20: See responses GEN-G1 and WQ-G1.

Comment GEN-21: We must do all we can before Lake Tahoe becomes a note in geography books and a sad lesson in history books!

Response to Comment GEN-21: See response to comment GEN-G1

Comment GEN-22: Lake Tahoe is a national jewel that needs to be protected!

Response to Comment GEN-22: See responses GEN-G1 and WQ-G1.

Comment GEN-23: As long as I can remember there have been bumper stickers to SAVE LAKE TAHOE. Why should that attitude change now?

Response to Comment GEN-23: See Response to Comment GEN-G1

Comment GEN-24: Please eep Tahoe blue and beautiful!

Response to Comment GEN-24: See response to comment GEN-G1

Comment GEN-25: Keep Tahoe pristine and wild!

Response to Comment GEN-25: See response to comment GEN-G1

Comment GEN-26: Tahoe is a beautiful piece of heaven on earth and most be protected.

Response to Comment GEN-26: See responses GEN-G1 and WQ-G1.

Comment GEN-27: Nothing is more beautiful or deserving of being protected than Lake Tahoe.

Response to Comment GEN-27: See responses GEN-G1 and WQ-G1.

Comment GEN-28: Lake Tahoe is true bistate Jewel that deserves the utmost care to prevent unnecessary substances that could be dangerous or harmful to the aquatic life and other animals that use the Lake.

Response to Comment GEN-28: See responses GEN-G1 and WQ-G1.

Comment GEN-29: If you enjoy Lake Tahoe RESPECT it! You are destroying a beautiful part of the lake. Stop!

Response to Comment GEN-29: See response to comment GEN-G1

Comment GEN-30: I grew up in the Reno Tahoe area. The lake has always been an awe inspiring place, so pristine and beautiful. We need to do whatever we can to keep it that way.

Response to Comment GEN-30: See response to comment GEN-G1

Comment GEN-31: I grew up spending summers at Tahoe and I want to continue to go there and appreciate this beautiful place. It's unconscionable to gamble on a quick fix to please a few.

Response to Comment GEN-31: See response to comment GEN-G1

Comment GEN-32: My God! It's all about the money. Hard to look at that picture of 1500 homes spewing waste and garbage into our last beautiful lake. Amazing. What creeps allowed this to happen?

Response to Comment GEN-32: See Master Responses GEN-G1, WQ-G1, and CST-G1.

Comment GEN-33: We all need to take care of Lake Tahoe, keep it beautiful, and keep us safe. I have a ten month old that I want to be able to swim in the lake and enjoy the area as she grows, something I will not feel can happen if we are not concerned about what we are allowing to wash into the water.

Response to Comment GEN-33: See responses GEN-G1 and WQ-G1.

Comment GEN-34: I moved to the Lake Tahoe region 6 years ago to experience the amazing environment here. I love this lake and the surrounding mountains and communities. Please avoid poisoning Lake Tahoe at all costs.

Response to Comment GEN-34: See responses GEN-G1 and WQ-G1.

Comment GEN-35: I can count the grade 3, natural resources I know of on one finger. Tahoe. Whatever you envision of it cannot begin to bring back what it once was. Each successive effort to correct one mistake further degraded this once pure environment. Stop in the name of Heaven, stop

degrading this glimpse of heaven.

Response to Comment GEN-35: See response to comment GEN-G1

Comment GEN-36: Lake Tahoe is treasured for its scenic and ecological values not just by residents of California and Nevada, but by many others. The Washoe Tribe considers the lake to be a sacred life-sustaining water, the center of the world. The lake is designated an "Outstanding National Resource Water" under the Clean Water Act and is recognized nationally and globally as a natural resource of special significance.

Response to Comment GEN-36: See responses GEN-G1 and WQ-G1.

Comment GEN-37: We are writing in response to the call for comments on the draft EIR/EIS for the proposed Tahoe Keys Lagoons Aquatic Weed Control Methods Test. In general, we find the draft EIR/EIS fairly detailed and thorough. The historical background and scope of the aquatic weed infestation in Lake Tahoe and the Tahoe Keys lagoons specifically are well described.

Response to Comment GEN-37: Thank you for your comment.

Comment GEN-38: Lake Tahoe is an invaluable and irreplaceable ecosystem. This jewel of the Sierra must be protected in the most thoughtful measures possible! Please think about the long term effects of each action and make the right decision.

Response to Comment GEN-38: See responses GEN-G1 and WQ-G1.

Comment GEN-39: Lake Tahoe is one of the most beautiful lakes around. We don’t want anything to impact or ruin it.

Response to Comment GEN-39: See responses GEN-G1 and WQ-G1.

Comment GEN-40: The beauty of the Lake depends on its health. We need to reduce chemical contamination, run off, and invasive species to keep Tahoe blue! This protects the Lake and everything that depends on it, including wildlife, locals, and tourists.

Response to Comment GEN-40: See responses GEN-G1 and WQ-G1.

Comment GEN-41: My mom grew up in Reno, and she's told me about how beautiful Lake Tahoe is. I haven't had the chance to see it yet, and if the ecosystem is disrupted by toxic chemicals, I'll never get to see it the way that my mom did. Lake Tahoe is an important resource, culturally and environmentally. Polluting it is not the way to remove invasive species; it would just replace one problem with another.

Response to Comment GEN-41: See responses GEN-G1 and WQ-G1.

Comment GEN-42: The highest objective is to protect Lake Tahoe's world-famous clarity, majestic color, and purity. I lived in South Lake Tahoe from 1963 to 1970, moved from South Tahoe in 1970, returned intermittently until 1973, lived there from 1973 to 1978, and visit the area periodically since then. In the 1970s the Tahoe Keys lagoons had become an opaque, viscous composite containing different particles and forms of contamination and debris including chunks of mossy Styrofoam, boards and wood fragments, occasional decomposing waterfowl, plastic bags, and

chemicals and substances that were introduced into the watershed. In the 1970s I observed aquatic plants in the lagoons, but the unclear water affected visibility. I cannot say with certainty how extensive the aquatic plant growth was then. I was more familiar with aquatic vegetation upstream from Tahoe Keys, in the Upper Truckee River, Trout Creek, tributaries, and in Taylor Creek. In the early 1960s there was one or two species of aquatic plants, and little moss, at the elevation where the Upper Truckee River and Trout Creek flow through the meadows. In-stream vegetation reduced in the springtime when snowmelt increased the stream flow. Aquatic vegetation increased towards the end of summer when water flow was reduced and water temperature increased in shallow areas. Road runoff, leakage from the water treatment plant effluent piping system, and other impurities in the late 1960s probably increased some species of aquatic vegetation. Until 1967, the Upper Truckee River meadow, upstream from Highway 50, and the Upper Truckee - Trout Creek marsh that flows into Lake Tahoe, flooded annually. Springtime floods renewed the landscape by washing away the litter and scars of the previous year. As floods receded, the land was restored into a natural, beautiful, unblemished condition. Unfortunately, the litter that was washed away got buried or snagged in stream beds or was washed into Lake Tahoe. When the floods receded, chunks of soiled Styrofoam and other debris drifted from the Tahoe Keys into the marshland on the eastern side of the Upper Truckee River. I believe the last annual flood was in 1967, before upstream water control was built. In the 1960s the Upper Truckee River adjacent to Tahoe Keys was dredged and channeled into a straight canal. This alteration in the stream bed reduced the sediment-filtering capacity and ecosystem of the remaining wetland. The Upper Truckee Marsh Restoration project will significantly improve the pollution filtering ability of the wetland. After 1967, an increase of aquatic vegetation, including more algae than I had previously seen, occurred simultaneously with increased development. Aerial insecticide spraying may have been a contributing factor, as terrestrial and aquatic insects were diminished from chemicals that were introduced to the air, land, and water. Previously sparse aquatic vegetation growths, in niches and bends along the stream-beds, grew into thick mats. Previously bright, clear, sandy stream beds acquired a brownish glaze, and the water an unclear tint. The trout population declined sharply and was not replenished until cleanups and habitat restoration occurred. Cleanup initiatives, occurring since the 1980s, significantly improves the appearance and appeal of the lagoons. However, water quality remains an issue. Certain aquatic invertebrates are pollution-intolerant, and some species are pollution-tolerant. Several invertebrate species were tested in the Report. There are more pollution-tolerant species in the lagoons than pollution-intolerant species: Canals with low-flow and no-flow water become stagnant.

Response to Comment GEN-42: See responses GEN-G1, AWM-4, and WQ-G1.

Comment GEN-43: The Tahoe Area Group has more than 900 members in Nevada and California. Sierra Club Groups are subdivisions of Chapters. Group members in Nevada are members of the Toiyabe Chapter (more than 6,200 members); Group members in California are members of the Mother Lode Chapter (more than 17,400 members). Tahoe Area Group members have engaged on issues related to the health of Lake Tahoe for many years and are intensely interested in the outcome of this process for our current and future members as well as for the health of our precious national treasure, Lake Tahoe. Protection of the health of Lake Tahoe is also a high-priority issue for the Toiyabe and Mother Lode Chapters as well as members across the country. The Tahoe Keys is a case study showing how NOT to develop land in a fragile subalpine ecosystem on a world-renowned scenic lake. We are certain that such a development destroying a wetland would not be permitted today. The Tahoe Keys is a private residential development of more than 1500 homes and a marina. It was constructed in the 1960s by dredging Lake Tahoe's largest wetland, the Upper Truckee Marsh, to create lagoons. The homes and infrastructure were subsequently constructed atop the piled-up dredge spoils. Construction of the Keys destroyed the function and hydrology of the marsh, which filtered and purified the inflow from the largest tributary to the Lake. The legacy of this 60-year-old development is the 172 acres of largely stagnant artificial Keys "lagoons". An aquatic weed

infestation covers 90% of the lagoons' surface, causes harmful algal blooms, and impedes navigation in the lagoons. Boats entering the Lake from the lagoons transport weed fragments throughout the Lake, spreading the infestation and endangering the Lake's ecology and its famed clarity. Infestations have occurred at numerous locations around the Lake. And now, because of the explosive weed growth at the Keys over the past several decades and its inevitable spread to many locations in Lake Tahoe, millions of dollars are being spent and will be spent in the future to prevent and remove weed infestations along shorelines and in marinas around the Lake. Because the Lead Agencies have avoided requiring proactive aquatic management solutions that could have been implemented to help slow or prevent the build-up of muck and nutrient-laden sediment in the Keys, such as proper land use management, maintenance of beneficial vegetative buffers and sediment traps, and installation of aeration systems, they are now resorting to the all-too common use of herbicides. The Lead Agencies make no attempt with this Draft EIR/EIS to solve the problem, but instead only try to manage it. Including herbicides in this test will only lead to its perpetual use. The Lead Agencies' past avoidance of the problem also now means that the public is being asked to pay for their past avoidance of the problem. The time to act on solving this problem and saving the lake from the Keys is now.

Comprehensive, honest, and accurate analysis is essential to the future of a beautiful and beloved national treasure – Lake Tahoe. The Draft EIR/EIS admits, "The spread of aquatic invasive species (AIS) is threatening Lake Tahoe's ecosystem, water quality, iconic clarity, and $5 billion recreation-based economy"(Executive Summary, p. ES-1) .

Response to Comment GEN-43: See responses GEN-G1, ALT-G2, Master Response HER-G1, WQ-G1, and CST-G1.

Comment GEN-44: The Draft EIR/EIS substitutes argument, speculation, and unsubstantiated opinion for substantial evidence. CEQA Guidelines § 15384(b) defines "substantial evidence" as including "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." "Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate,... does not constitute substantial evidence." (§ 15384(a.) As shown in more detail below in the General and Specific Comments, the Draft EIR/EIS is generally lacking in substantive supporting documentation and references to support the assertions and conclusions. That is true, for example, with respect to the findings of no significant impacts anywhere with the exception of the no action alternative. Again, the Draft EIR/EIS for the project is so inadequate that it has precluded meaningful analysis of the Proposed Project, environmental impacts, and alternatives. The agencies must prepare a revised Draft EIR/EIS and circulate same for public and decision-maker review, and for public comment.

Response to Comment GEN-44: See responses PP-G1, PP-9, REG-23, ALT-91, and ALT-G1.

Comment GEN-45: The first paragraph on page 1-4 describing the Tahoe Keys does not mention that it is a private resort development whose facilities are available only to homeowners and guests of homeowners. This information is important to place the issue in context.

Response to Comment GEN-45: Within the environmental setting description, the DEIR/DEIS indicates that the Proposed Project would occur in the lagoons of the Tahoe Keys development and that the "[p]roperties within Tahoe Keys are predominantly residential, with private docks extending into the lagoons to accommodate private recreational boating in the lagoons and into Lake Tahoe."

Comment GEN-46: The Sierra Club objects to the stated goal of the Proposed Project on page 1-9 of the Draft EIR/EIS, the "long-term management of the target aquatic weeds." This goal is flawed for many reasons:

- It does not address the sources of the problem. As discussed above, the Proposed Project does nothing to reduce the six decades of accumulated nutrient inputs from stormwater and over-fertilized lawns that have fed the growth of these weeds. Nothing is being done to reduce the nutrient inputs from fertilizers poured on the numerous vibrant green lawns adjacent to the lagoons everywhere in the development. Instead, the Proposed Project would only test curbing the growth of weeds by adding toxic chemicals to the lagoons.
- One of the bullet points under this goal is to "reduce the potential for target aquatic weed re-infestation after initial treatment." However, this cannot be achieved without drastically reducing the nutrient inputs which have fueled the flourishing growth of weeds. The potential for target aquatic weed re- infestation might be reduced by continued herbicide use, which has been required at other lakes where herbicide use has been initiated, but the Draft EIR/EIS dishonestly purports that a one-time use of herbicides will effectively reduce the weeds without further applications. As stated repeatedly in these comments, the Sierra Club is opposed to all herbicide use in Lake Tahoe and connected waters.
- Why should the public be asked to pay for managing an unnatural system so that a small number of property owners, most of whom are second homeowners, can continue to boat into Lake Tahoe from their backyards? That the public would be asked to pay to sustain this privilege in this time of pandemic and economic collapse is obscene.
- The long-term goal should be to fix the problem, not to exacerbate it by using toxic chemicals to manage it in perpetuity.

Response to Comment GEN-46: Section 1.2.2.1 of the DEIR/DEIS, page 1-9, states the "goal of the Proposed Project is to test a range of large-scale and localized aquatic weed control methods suitable for long-term management of target aquatic weeds." The Control Methods Test (CMT) will test methods to control the spread of non-native target aquatic weeds that have compromised water quality and degraded a wide variety of beneficial uses of the Tahoe Keys lagoons and threaten Lake Tahoe, including both natural conditions and human use. See also responses AWM-56, AWM-23, ALT-G2, Master Response HER-G1, REG-6, and CST-G1.

Comment GEN-47: Suggestion to read: Standing Up for This World, by Mary O'Brien. "NEPA requires that an environmental impact statement include "all reasonable alternatives to the proposed action." A companion requirement, equally as important, is that consideration of such alternatives must take place in collaboration with the public, allowing citizens to embrace NEPA's challenge. NEPA says, in effect, You have the power to help your government do its job."
Mary O'Brien is also author of Making Better Environmental Decisions, which "recommends a simple yet profound shift to another decision-making technique: "alternatives assessment." Instead of asking how much of hazardous activity is safe (which translates into how much damage the environment can tolerate), alternatives assessment asks how we can avoid or minimize damage while achieving society's goals. Alternatives assessment is a simple, commonsense alternative to risk assessment. It is based on the premise that it is not acceptable to damage human and nonhuman health or the environment if there are reasonable alternatives. The approach calls for taking precautionary measures even if some cause-and-effect relationships have not been fully established scientifically. The process must involve an examination of the full range of alternatives, including no action at all. Equally important, it must be democratic and include potentially affected parties. O'Brien not only makes a persuasive case for alternative assessment; she tells how to implement it. She also shows how this technique has profound implications for public health, for our stewardship of the environment, and for a truly democratic government."

The Lead Agencies need to read the above works because they have clearly gone down a path of excluding opponents of herbicides to the "inner circle" of "collaborators" (Stakeholder Committee)

and have not listened to other voices that have been calling loudly for these Agencies to look to other methods besides chemicals. These voices have not only come from the Sierra Club, but from individual citizens who have contacted the Sierra Club and who have either been largely or completely ignored.

Response to Comment GEN-47: The DEIR/DEIS was prepared under CEQA and TRPA regulations, not under NEPA. It is not subject to NEPA requirements. See also Master Response ALT-G1 and comment reponses PP-12, and PP-13.

Comment GEN-48: Clearly, this Draft EIR/EIS is inadequate in numerous respects and should be completely revised, eliminating costly Action Alternative 2, which was included as "filler" for lack of other alternatives. The revised Draft EIR/EIS must include the antidegradation analysis.

Response to Comment GEN-48: See Master Responses ALT-G1, AA-G1 and PP-G1.

Comment GEN-49: As a professional ecologist, I know that sustainable solutions are always available. Let's do the right thing for Lake Tahoe and help preserve its unique and valuable ecosystem.

Response to Comment GEN-49: See Master Response GEN-G1 and WQ-G1.

Comment GEN-50: The current TKPOA administration is owned by anachronistic forces and thinking. Safe controls have previously been employed by this "wealthy elite"? Tahoe community. Now profits and cost mitigation has overcome better judgement to continue responsibly treating this natural problem from an unnatural community development.

Response to Comment GEN-50: See responses ALT-G1, RES-G1, and CST-G1.

Comment GEN-51: I've visited Lake Tahoe a number of times and to have such a place be ruined and tarnished would be truly heartbreaking. Waiting to act will make correcting the problem even more difficult as the weeds spread and so being swift in the attempt to stop it is critical.

Response to Comment GEN-51: Thank you for your comment.

USE OF HERBICIDES

Comment HE-1: The Tahoe Keys lagoons are an environmental disaster at Lake Tahoe. Proof of this are the infestations of aquatic invasive weeds now thriving there and the proposals to control these weeds with herbicides. These weeds are destroying Tahoe's legendary clarity and purity. Proposals to control them with herbicides only poisons the lake further.

I am absolutely opposed to any and all use of poisonous herbicides in the Keys and any other waters that connect to Lake Tahoe -- a Tier 3 Outstanding National Resource Water. I oppose spending tens of millions of taxpayer dollars for the convenience of boat-owners at the Tahoe Keys. I join The Sierra Club Tahoe Area Group in defending the purity of Lake Tahoe.

Response to Comment HE-1: See responses GEN-G1, Master Response HER-G1 and response AWM-4.

Comment HE-2: Lake Tahoe is a national jewel. We must be sure to preserve its clarity and beauty. Please ban poisonous herbicides from use in or near the lake.

Response to Comment HE-2: See Master Response HER-G1 and response AWM-4.

Comment HE-3: Why does our country still allow the use of these chemicals knowing full well the consequences to all life. We need to have them permanently banned!

Response to Comment HE-3: See response Master Response HER-G1.

Comment HE-4: As a user of Lake Tahoe, I am greatly concerned about the herbicide use. The lagoons flow directly into Lake Tahoe and are the source of aquatic invasive weeds that are now showing up regularly around the entire lake, including the north shore. Because of continued spread of these weeds throughout the lake, I am concerned that herbicide use in the lagoons will lead to herbicide use throughout the lake ecosystem to control the weeds. People drink from Lake Tahoe, even the Lakeside Park Association (LPA), the closest water company to the Tahoe Keys area and draws its water directly from Lake Tahoe, is against the use of herbicides; they have even gone so far as to publicly state "LPA has no water treatment facilities to filter this contaminate from its water supply and there is no certainty the herbicide will dissipate, as this has never been proven in Lake Tahoe."

Response to Comment HE-4: See Master Response HER-G1 and WS-G1.

Comment HE-5: Non-chemical methods must be more widely and properly tested before testing or considering the use of aquatic herbicides…[which should] be the absolute last resort.

Response to Comment HE-5: See Master Response HER-G1.

Comment HE-6: Tahoe should not be polluted with chemicals. Two environmental wrongs don't make a right. I want clean drinking water for me and all the animals who rely on runoff

Response to Comment HE-6: See Master Response HER-G1

Comment HE-7: Herbicides are poison. I don't understand why we would even consider putting them in Lake Tahoe.

Response to Comment HE-7: See Master Response HER-G1.

Comment HE-8: Because the lake is a natural treasure and herbicides never turn out well. The keys should never have been developed the way they have been is the first place. The lake needs less unnatural activity there not more. The wealthy who live there should fund more natural approaches to this problem.

Response to Comment HE-8: See GEN-G1 and Master Response HER-G1.

Comment HE-9: No poisonous herbicides in Lake Tahoe!

Response to Comment HE-9: See Master Response HER-G1

Comment HE-10: We should not be able to use poison to stop a man-made environmental mistake. Eradication/control measures should continue be based on manual removal and non-intrusive measures and never include the use of herbicides. Which can destroy more than just the invasive weeds that we are trying to manage. Tahoe keys should be removed before we think to dump chemicals of any kind in a fresh water body of water with the average depth of clarity being 70. Manual removal is best and should continue or the keys removed to protect the lake.

Response to Comment HE-10: See responses GEN-G1, Master Response HER-G1, AWM-4, and RESG1.

Comment HE-11: I live here at Lake Tahoe full time for decades. I think it is foolish and hasty to introduce herbicides and toxic chemicals into Lake Tahoe Please consider other methods that will solve the problem without messing up the Lake, it's living beings, and potentially us humans.

Response to Comment HE-11: See Master Response HER-G1

Comment HE-12: Don't poison the lake.

Response to Comment HE-12: See Master Response HER-G1

Comment HE-13: It was Jennifer Carr from Nevada Department of Environmental Protection (NDEP) asking about the technical specs of the proposed herbicides, degradants and associated analysis. Can you send the list of chemicals and the memo or other information on analysis?

Response to Comment HE-13: LWB staff responded with the list of active ingredients and degradants, and references for technical specifications for herbicide products. See also Master Response HER-G1.

dipotassium salt endothall (component endothall acid);
triclopyr triethlyamine salt (TEA) -components triclopyr acid,
Degradants
3,5,6-trichloro-2-pyridinol [TCP],
3,6-dichloro-2-pyridinol (DCP)
5-chloro-2hydroxypyridine (5-CLP),
6-chloro-2hydroxypyridine (6-CLP)

Comment HE-15: Herbicides and other chemical solutions should be extreme last resorts. Look at the aluminum sulfate conundrum. Please go with AA1 first.

Response to Comment HE-15: See Master Responses ALT-G2,HER-G1 and GEN-G1.

Comment HE-16: The Tahoe Keys have already had a huge environmental impact on the clarity of Tahoe, to add herbicides to the mix will only make matters worse.

Response to Comment HE-16: See Master Responses HER-G1, and GEN-G1, and response AWM-4.

Comment HE-17: Our family has had a Tahoe home since 1938 and I have enjoyed it since 1955. I have seen the environmental degradation over the years and also the efforts of the TRPA and Keep Tahoe Blue and other organizations to preserve the lake. I have always supported these efforts and more needs to be done. Tahoe Keys is an ongoing danger to lake quality and invasive weeds should be removed from lake access and herbicides should not be used.

Response to Comment HE-7: See Master Responses GEN-G1 and HER-G1.

Comment HE-18: We love our lake and would hate for these herbicides to be the next major mistake made. Building the keys was the worse decision bc (because) the proper studies weren't done and the herbicides seems to be the same, we have no idea what the results will be! How about finding a way to live and deal with the invasive species that are thriving bc of a past mistake instead of making Another major mistake!!

Response to Comment HE-18: See Master Response HER-G1

Comment HE-19: Please take the first step toward healing the damage done by the Keys development, and ban herbicide use in and around Lake Tahoe.

Response to Comment HE-19: See Master Response HER-G1

Comment HE-20: I totally oppose the use of herbicides in Lake Tahoe and adjacent properties. Furthermore, the herbicide solution for Tahoe Keys invasive weeds strikes me as a band aid on a boil, needing to be repeated in the future. This community must support an alternative treatment, no matter the cost.

Response to Comment HE-20: See Master Response HER-G1

Comment HE-21: Herbicides are poison. I don't understand why we would even consider putting them in Lake Tahoe.

Response to Comment HE-21: See Master Response HER-G1

Comment HE-22: The USEPA prohibits the use of aquatic herbicides in Lake Tahoe for good reason and this rule should not be tampered with. Development has already caused enormous harm to the Lake Tahoe ecosystem and to lake clarity, let's not further confound things by adding herbicides!

Response to Comment HE-22: Section 1.4.1.1 summarizes the USEPA antidegradation policy as it applies to Lake Tahoe and the Tahoe Keys lagoons, including requirements for States to allow some limited discharges that result in temporary and short-term changes to water quality. Section 1.4.3.1 summarizes the Basin Plan prohibition on the use of aquatic herbicides in Lake Tahoe and other areas of the Lahontan Basin, and the process required for approval of an exemption to the prohibition. Additional information on these regulatory requirements is presented in Section 3.2.1. Consistent with the antidegradation policy, the USEPA issued the Final NPDES Pesticide General Permit (PGP) for Point Source Discharges to Waters of the United States from the Application of

Pesticides in 2011, extending permit coverage to designated Tier 3 waters (USEPA 2011). See also Master Responses HER-G1 and AA-G1.

Comment HE-23: Please take steps to protect Lake Tahoe From poisonous herbicides and invasive weeds. It is the responsible thing to do to protect the future of this precious natural resource.

Response to Comment HE-23: See Master Responses GEN-G1 and HER-G1.

Comment HE-24: Using herbicides in Lake Tahoe is an action of intentionally polluting the Lake. This is counter to the goal of maintaining and promoting lake clarity.

Response to Comment HE-24: See Master Response HER-G1 and response AWM-4.

Comment HE-25: Please, no herbicides in Lake Tahoe!

Response to Comment HE-25: See Master Response HER-G1

Comment HE-26: Lake Tahoe is a scenic and ecological treasure. Protect our treasure - don't poison it.

Response to Comment HE-26: See Master Responses GEN-G1 and HER-G1.

Comment HE-27: No toxins... That hurts all !!! Our water is too precious!!!

Response to Comment HE-27: See Master Response HER-G1.

Comment HE-28: My family and I have enjoyed Lake Tahoe for years and have observed the human impact on the lake. The Tahoe Keys probably wouldn't be built today, but it's here now and every effort should be taken to mitigate its presence. Using chemical herbicides should not be used!

Response to Comment HE-28: See Master Response HER-G1.

Comment HE-29: The environment is loaded with herbicides, which are toxic to all species including humans. There are effective organic ways of attenuating proliferation of unwanted botanical species.

Response to Comment HE-29: See Master Response HER-G1.

Comment HE-30: I am a frequent year round visitor to Lake Tahoe and have many friends who live in North Lake Tahoe. I am opposed to using toxins to clear out a man made "lagoon". Aquatic herbicides have never been used in Lake Tahoe or the Keys because the USEPA prohibits their use in Tahoe, which is classified as a Tier 3, Outstanding National Resource Water.

Response to Comment HE-30: See response HE-22, and Master Responses HER-G1 and AA-G1.

Comment HE-31: Building a subdivision on the water, especially on Lake Tahoe- one of the last clean bodies of water in California- is going to increase the contamination of Lake Tahoe, period. With leaking or breaking sewer pipes, petroleum and oil run-off from driveways during rain storms, and from leaking boat motors, going into the lake. The Increase of aquatic weeds us usually an environmental response to filter out these added toxins. The Subdivision sees the weeds as a nuisance, and so wants to use MORE TOXINS, like Herbicides to kill off the weeds. It is just throwing

more toxicity into the water to solve a aquatic weed problem that the subdivision created with its increased water pollution. And the herbicides (and many chemicals) that EPA says are safe, FREQUENTLY are discovered to have many toxic unintended consequences, 20 yrs later. Such as glyphosate/Round Up. Aquatic herbicides are NOT A SOLUTION , they are another problem.

Response to Comment HE-31: See Master Response HER-G1

Comment HE-32: If we want Lake Tahoe to remain pristine, we should not allow companies to use herbicides to degrade its purity.

Response to Comment HE-32: See Master Response HER-G1

Comment HE-32: As a frequent visitor to the Tahoe area, I don't want to see this detrimental action taken.

Response to Comment HE-32: See Master Response HER-G1

Comment HE-33: All non-chemical methods to rid the water of these weeds must be used to preserve Lake Tahoe. Herbicides are poison.

Response to Comment HE-33: See Master Response HER-G1

Comment HE-34: As a Professor Emeritus of Zoology and Environmental Science and a California native, I have long followed the saga of Lake Tahoe's environmental problems. I have always advocated for keeping the lake, and the famous clarity of its waters, as pristine as possible. The proposed use of herbicides at Tahoe Keys is contrary to the long-term maintenance of the lake's clarity and ecology.

Response to Comment HE-34: See Master Responses HER-G1 and GEN-G1, and response AWM-4.

Comment HE-35: I grew up at Lake Tahoe and have always opposed the Tahoe Keys development. I don't like the idea of adding herbicides to try to solve the problem they have created. The Keys management should be held responsible and required to used nontoxic methods to clean the water that they are using.

Response to Comment HE-35: See Master Response HER-G1

Comment HE-36: Don't ruin Lake Tahoe! Herbicides will unbalance its ecosystem and poison beneficial creatures.

Response to Comment HE-36: See Master Response HER-G1

Comment HE-37: While I am not a resident of the Lake Tahoe area, my niece and her family and my cousin are, and when I visit them, I truly appreciate the purity and beauty of this special lake. To that end, preserving its uniqueness is of utmost concern to me. There are non-toxic solutions to the weed problem and these must be utilized. Full Stop.

Response to Comment HE-37: See Master Responses GEN-G1 and HER-G1.

Comment HE-38: Our natural environment is the space in which we grow. To prosper as humanity, that space must be protected from pollution and degradation. Our governmental agencies are charged with the responsibility to make our hopes and aspirations a reality in our communities. Protecting Lake Tahoe and those who depend on it for their lives and livelihoods by keeping it clean and clear. Herbicides must be controlled.

Response to Comment HE-38: See Master Responses HER-G1 and GEN-G1, and response AWM-4.

Comment HE-39: I grew up spending summers at Lake Tahoe because a relative had a cabin on the lake. Now it is just our favorite place to visit with the children or grandchildren growing up camping or staying in hotels.. Lake Tahoe is for everyone not just those relative few who live in the Tahoe Keys who want to use herbicides that will ruin the ecology of the Lake for all. Do not allow this to happen.

Response to Comment HE-39: See Master Response HER-G1

Comment HE-40: Please try to avoid ruining Lake Tahoe with herbicides until you exhaust every means to rectify the situation.

Response to Comment HE-40: See Master Responses GEN-G1 and HER-G1

Comment HE-41: I've been swimming in Lake Tahoe since high school in 1974. With many more people wanting to live and recreate in the Tahoe Basin, the efforts to preserve water quality must match the impact of the residents and visitors. Toxic chemicals for the convenience of homeowners who unfortunately built on marsh land is a step in the wrong direction.

Response to Comment HE-41: See Master Responses GEN-G1, HER-G1, and WQ-G1.

Comment HE-42: Please do not put chemicals into the lake, making the problem worse than it is. Please find an alternative long-term solution.

Response to Comment HE-42: See Master Responses GEN-G1 and HER-G1

Comment HE-43: Pesticides are dangerous. Stop the spread of invasive weeds in Lake Tahoe without the use of dangerous pesticides! They are other safer ways to take care of these invasive weeds. Look at the studies of the long term harm pesticides can do to our environment, in water and on land. Make the right choices for future generations.

The CMT proposes one-time applications of specific aquatic herbicide products that were selected in part based on studies showing their limited persistence in the environment. Long-term exposures would not result from the proposed herbicide applications. Basin Plan requirements for an exemption to the prohibition on aquatic pesticides state that long-term detectable concentrations are not permittable.

Response to Comment HE-43: See Mster Responses GEN-G1 and HER-G1.

Comment HE-44: As a homeowner in Tahoe Keys, I have a personal interest in only using environmentally safe agents to control the invasive weeds that have been an ongoing problem since we built our house in 1978

Response to Comment HE-44: See Master Response HER-G1

Comment HE-45: So important to keep as much toxic herbs as possible in such a rare pristine environment.

Response to Comment HE-45: See Master Response HER-G1.

Comment HE-46: Lake Tahoe has long been an environmental jewel and a great revenue generator. Its clear water depends on not introducing pollutants. Tahoe Keys should try everything else first before resorting to herbicides that could affect water clarity and almost certainly will affect water quality for the aquatic creatures that live in it. Plus humans who swim in it.

There was no information found to suggest that testing herbicides at sites in the Tahoe Keys lagoons would have any direct or indirect effect on water clarity in Lake Tahoe. Any lowering of water quality could only be permitted if it is determined to be short-term and temporary, and protection of beneficial uses will be maintained. See also Master Response HER-G1.

Response to Comment HE-46: See Master Responses HER-G1 and WQ-G1, and response AWM-4.

Comment HE-47: Lake Tahoe is the one pure, clean large lake in the country that is left. Weeds will choke it, pesticides will kill it. Don't let that happen!!! Keep Tahoe clean. Keep our earth living. It's the only one we have or will ever have

Testing of aquatic weed control measures, including aquatic herbicides, is proposed to evaluate effectiveness in killing the aquatic weeds. Limited effects on non-target species would be limited to areas within and adjacent to the test sites.

Response to Comment HE-47: See Master responses GEN-G1 and HER-G1.

Comment HE-48: I've lived at Lake Tahoe since 1976. It is well recognized the problem caused by the loss of the upper Truckee River wetlands due to construction of the Keys Marina was a huge mistake. Since then, over the last half a century there has been a huge increase of knowledge and public understanding regarding how to protect and preserve our beautiful jewel. Along with this continually growing body of knowledge (thank you Tahoe Environmental Research Center and Dr. Goldman) there has also been an enormous investment of state and federal public tax dollars to help preserve the clarity of Lake Tahoe based on this research and knowledge. Additionally, we who love the lake and live here have all made personal sacrifices by accepting limitations of development rights on our property, paying additional taxes to build a sewer systems, accepting a reduced number of buoys and living under a bistate regulatory authority tasked to protect and preserve the lake . After all these years of study and research and massive public and private investments in the lake's clarity I have to strongly object to the "Proposed Project" in the DEIS/DEIR to use herbicides to control the weeds in the Keys lagoons. Our lake is worth seeking new and creative non-chemical ways to eliminate the weed infestation. This proposal goes against the historical commitment made long ago by Governors Laxault and Reagan to create new solutions to protect and preserve one of our nations most treasured resources. We're steering off the course they set with this proposal. Please support AA1.

Response to Comment HE-48: See Master Responses ALT-G1, HER-G1, and GEN-G1, and response AWM-4.

Comment HE-49: I grew up in El Dorado County in the 60s and 70s. We traveled to the Tahoe area for high school athletic competitions, and it was always a favorite destination (except for the ski team, where South Tahoe always dominated). The fabled blue of the Lake, due to the clarity and purity of the water, was always a thrill to see in person. Tahoe Keys was, even at the time, having

trouble with water quality. The development was too crowded to keep pollutants out of the water, mostly a sewage issue back then. I'm sure this has contributed to the growth of weeds in the canals over the decades. Please don't pollute the entire lake with herbicides, as there is no way to control where the chemicals end up. Manual elimination will be costly and take a long time, but this technique should have been used all along. The residents of this exclusive housing development should either contribute funding or labor to the cause.

Response to Comment HE-49: Available information on water quality issues after construction of the Tahoe Keys indicate that high turbidity and poor water clarity persisted from the disturbance caused by construction of the lagoons. No evidence has been found indicating a sewage issue. Section 3.2 provides information about the environmental fate of herbicides proposed in the CMT and measures to contain them within areas of the lagoons. Triclopyr ends up degrading to carbon dioxide and water, while endothall is broken down into carbon, hydrogen, and oxygen. See also Master Responses HER-G1, GEN-G1, and response AWM-4.

Comment HE-50: No toxic chemicals should be used to maintain ?weeds? in Lake Tahoe! The weeds invading the lake are the developers and the people who decided to build and live on or around the lake. Remove them and let the lake be as beautiful as it once was.

Response to Comment HE-50: See Master Responses RES-G1 and HER-G1.

Comment HE-51: Herbicides end up killing much more than originally desired to kill. Not a good thing for Tahoe!

Information on the potential effects on non-target plants and animals is presented in Section 3.3.5., and supports the expectation that (1) these effects will be short-term and limited to within and adjacent to test sites, (2) adverse effects to native plant and animal communities in the lagoons will not be significant, and (3) habitat for native flora and fauna will be improved where aquatic weed control measures are effective. The TKPOA application for exemption and APAP proposed testing herbicides at less than maximum approved label rates based on mesocosm studies and site information. See also Master Response HER-G1.

Response to Comment HE-51: See Master Responses GEN-G1 and HER-G1

Comment HE-52: It is important to use non-herbicidal means to remove the contaminating growth in order to preserve the beauty and clarity of Lake Tahoe.

Response to Comment HE-52: See Master Responses ALT-G1and HER-G1, and response AWM-4.

Comment HE-53: It would seem obvious to this voter that the prohibition against use of herbicides in / around Lake Tahoe is a "no brainer" Herbicides eventually harm animals (fish, fowl, etc.). Look at Roundup. The company is putting a $9 or $10 billion fund together to pay claims of injury to humans caused by a herbicide. Say no to herbicide use in / around the lake.

Response to Comment HE-53: See Master Responses GEN-G1 andHER-G1.

Comment HE-54: This is a major body of water in the watershed and should be kept uncontaminated.

Response to Comment HE-54: See Master Responses GEN-G1 and HER-G1.

Comment HE-55: There is no reason to poison the Lake! This water must stay free of contaminants. So many "cures" for different things used in the Lake have had worse collateral damage.

Response to Comment HE-55: See Master Responses GEN-G1 and HER-G1

Comment HE-56: I have recreated near beautiful Lake Tahoe. Applying herbicide to mitigate the weed problem in Lake Tahoe neglects to address the hydrological alteration that destroyed the wetland when Tahoe Key was built. Although the USEPA approved the herbicide to be used, some herbicides approved by USEPA have been revealed to be toxic. The herbicide application will have to be continued and reapplied; herbicides are not a cure and will escape into the main part of Lake Tahoe. Please investigate less damaging solutions to invasive plants. Perhaps altering the hydrology to mimic more natural wetlands.

Response to Comment HE-56: See Master Responses GEN-G1, HER-G1, and RES-G1.

Comment HE-57: We must preserve the beauty and integrity of Lake Tahoe. Please stop the use of toxic chemicals before it's too late. Non-toxic methods must be used and restoration of the natural wetlands needs to be restored to protect Lake Tahoe one of the most majestic of our lakes.

Response to Comment HE-57: See comment Master Response GEN-G1, ,HER-G1, and RES-G1.

Comment HE-58: I visit Lake Tahoe frequently to hike and enjoy the lake and do not want herbicides to be used to control weeds which will threaten the lake's purity. Instead, efforts should be undertaken to restore the wetlands that cleansed the lake naturally before development of the Tahoe Keys. Please continue manual removal of weeds instead.

Response to Comment HE-58: See Master Response GEN-G1, HER-G1, and RES-G1.

Comment HE-59: I have wanted to visit lake Tahoe ever since hearing stories of its stunning clear blue color during my childhood in distant Virginia. Now that I live in California, I plan to visit as soon as the COVID pandemic is over. When I finally get there, I don't want the lake, so famous for its clarity and purity, to be tainted with herbicides. I, therefore, urge the Regional Planning Agency and the Water Quality Board to proceed with weed cleanup in the Tahoe Keys development by approving removal of the weeds physically from the lagoons -- and not by approving the use of herbicides.

Response to Comment HE-59: See Master Response GEN-G1 and HER-G1 and response AWM-4.

Comment HE-60: Tahoe is the jewel in the crown of the Sierras. Poison applications do not belong there ever.

Response to Comment HE-60: See Master Responses GEN-G1 and HER-G1.

Comment HE-61: Keep Tahoe Blue herbicides near one of Americas most iconic lakes just makes no sense!

Response to Comment HE-61: See Master Responses GEN-G1 and HER-G1.

Comment HE-62: It's difficult to find any water that is not contaminated. Groundwater, treated water, surface, marine waters, all have pollutants. Please do not contaminate the crown jewel of lakes,

Tahoe. Economically, ecologically and morally, this act would fail.

Response to Comment HE-62: See Master Responses GEN-G1 and HER-G1.

Comment HE-63: Aquatic herbicides were banned for good reasons years ago and those reasons still exist. The CAUSE of the problem of invasive weeds needs to be fixed and the function of the Marsh needs to be restored to help save the beauty of a national treasure.

Response to Comment HE-63: See Master Responses GEN-G1, HER-G1, and RES-G1.

Comment HE-64: Lake Tahoe, a former residence of mine, is one of the most bodies of water we have...Please do not use ANY PESTICIDES in and around the Lake. Man created this problem by over developing the area...maybe it could be 'mined' for fertilizer? Thank you.

Response to Comment HE-64: See Master Responses GEN-G1 and HER-G1

Comment HE-65: Don't make matters worse by allowing toxic and polluting herbicides.

Response to Comment HE-65: See Master Responses GEN-G1 and HER-G1

Comment HE-66: If we protect this lake, we would be protecting our own selves from more toxins. It will be one less thing that is toxic in our part of the Earth. We would be ensuring a beautiful and pure treasure that we and our children could partake of. Please, love yourselves and each other enough to say no to harmful toxins going in the lake.

Response to Comment HE-66: See Master Responses GEN-G1 and HER-G1

Comment HE-68: Stunned that anyone still considers putting chemicals into an ecosystem as a plausible idea. Naive compromises to short term solutions is how we end up in these situations to begin with. The proposal lacks insight based in the substantive fact that no one truly knows what the long term impacts will be. This whole agenda is rooted in previous ideas of the same nature. People and money are going to do what they want to do. It is ridiculous to even take the time to address this, it won't play out the way intended, regardless of the science. Add insult to injury.

Response to Comment HE-68: See Master Response HER-G1.

Comment HE-69: Lake Tahoe is the jewel of the Sierra. Can't we leave it alone without wrecking it with herbicides and weeds?

Response to Comment HE-69: See Master Responses GEN-G1 and HER-G1

Comment HE-70: This matters to me because I spent my 1986 honeymoon, and many subsequent summers, in Lake Tahoe. The clarity and beauty of the Lake are natural wonders that need to be preserved for future generations. Using herbicides, which contradicts the Tahoe Keys Weeds Draft Environmental Impact Report recommendation of Alternative AA1, lacks commonsense and a sense of our stewardship of Lake Tahoe.

Response to Comment HE-70: See Master Responses ALT-G1, HER-G1, and GEN-G1, and response AWM-4.

Comment HE-71: Along with many Californians and international visitors, I visit Lake Tahoe several times each year and treasure the natural ecosystem we have preserved. We should continue to preserve natural, non-chemical approaches to addressing problems rather than this proposed solution using herbicides.

Response to Comment HE-71: See Master Responses GEN-G1 and HER-G1.

Comment HE-72: I live in the keys and want a different method other than Herbicides.

Response to Comment HE-72: See Master Response HER-G1.

Comment HE-73: Lake Tahoe is one of California's natural treasures with its clear and pure waters. It is a place of refuge to enjoy nature and enjoy wildlife. It is not the place to use poisonous herbicides to kill aquatic weeds. All non-chemical methods must be exhausted before poisoning Lake Tahoe with herbicides. A critical step would be to restore the natural wetlands that never should have been destroyed in the first place.

Response to Comment HE-73: See Master Responses HER-G1, GEN-G1, and RES-G1, and response AWM-4.

Comment HE-74: It is our responsibility to take care of our national treasure- Lake Tahoe. While perhaps unknown at the time, the Tahoe Keys was an irresponsible development in the first place. That they now have invasive weeds is no surprise- when you interfere with nature, it yields poor results. Tahoe Keys must do better. Their private community that so loves our shared treasure must take care of it properly. Herbicides are toxic, cancer causing, and deadly to native species as well. This must be avoided at all costs. No herbicides!!

The specific herbicides proposed for testing are not known to cause cancer. See response to comment HE-51 regarding non-target plants and animals.

Response to Comment HE-74: See Master Responses GEN-G1 and HER-G1

Comment HE-75: Instead of using chemicals, even more natural options to kill weeds, restore the Tahoe lake wetlands by removing invasive development. Chickasaw tribe citizen.

Response to Comment HE-75: See Master Responses HER-G1 and RES-G1.

Comment HE-76: There are other proven nontoxic way to remove the weeds

Response to Comment HE-76: See Master Response HER-G1.

Comment HE-77: I spend up to a month at Lake Tahoe every year. I've supported the efforts to keep Tahoe blue. We need to look at every impact on the lake and take the path that is most ecological. If there are non-toxic ways to deal with an issue, then those are the methods that should be used, even if that means it's a more difficult way to go. After failing to look even 50 years into the future, we have to think in terms of maintaining the best condition of the lake for thousands of years into the future.

Response to Comment HE-77: See Master Responses GEN-G1 and HER-G1.

Comment HE-78: Don't poison Tahoe with herbicides.

Response to Comment HE-78: See Master Response HER-G1.

Comment HE-79: Tahoe shore residents ought to pay an extra tax in order to regularly control invasive plant/animal species in a NONTOXIC manner. No herbicides or pesticides in beautiful Lake Tahoe!

Response to Comment HE-79: See Master Responses GEN-G1 and HER-G1

Comment HE-80: I love Lake Tahoe and its clean, beautiful water. Please do not use herbicides to kill naturally growing weeds. There is an environmentally friendly way to get rid of these weeds that protects everyone and is safe for all. Please do the right thing, NO Herbicides!

Response to Comment HE-80: See Master Responses GEN-G1 and HER-G1.

Comment HE-81: Please do not use herbicides in or near our beautiful Lake Tahoe.

Response to Comment HE-81: See Master Responses GEN-G1 and HER-G1.

Comment HE-82: I love Lake Tahoe! Please do all in your power to keep the lake clean and prevent toxic herbicides from destroying the fragile ecosystem. Natural and safe methods are the preferable way to keep Lake Tahoe clean and her beauty to live on for generations to come.

Response to Comment HE-82: See Master Responses GEN-G1 and HER-G1.

Comment HE-83: I favor control of weeds via the herbicide program presented by TKPOA. Yes I live in the Tahoe Keys and I see 1st hand the impact of these invasive species. We have spent heavily to study and analyze. The time for execution is here.

Response to Comment HE-83: See Master Response GEN-G1.

Comment HE-84: I think the chemical impact on Lake Tahoe water is dangerous and will impact clarity of the lake. Physical removal is the best option.

Risks to people and aquatic life from proposed herbicide testing is addressed in Section 3.2. See response to comment AWM-4 regarding herbicides and Lake Tahoe water clarity. See also master comment response HER-G1

Response to Comment HE-84: See Master Responses GEN-G1 and HER-G1, and response AWM-4.

Comment HE-85: If there are alternative solutions to using herbicides to destroy the destructive plants, then those non-herbicidal remedies should be utilized first before even considering the use of herbicides. My opinion is that the home owner association should include in their dues an allotment for this weed abatement and to use non-herbicidal remedies.

Response to Comment HE-85: See Master Response HER-G1.

Comment HE-86: Please consider a permanent, long term solution to the invasive weed problem in the keys. Herbicide is not a sustainable answer. Restoring the keys to a pre-development wetland condition is.

Response to Comment HE-86: See Master Responses HER-G1 and RES-G1.

Comment HE-87: Please do not allow harmful chemicals to pollute this beautiful, pristine lake. It is an amazing oasis and should be protected and preserved. Not polluted like one more neglected waterway.

Response to Comment HE-87: See Master Responses GEN-G1 and HER-G1.

Comment HE-88: I've said it many times and I'll say it again. We need to do everything we can to protect the health of our one and only planet in our communities before it's too late. Already, much of this world has been destroyed due to reckless human activity and chemicals. For goodness sake, why don't we show appreciation for our beautiful treasures of the earth like Lake Tahoe and try hard to protect it instead of doing business as usual with dangerous development, privatization and chemicals.

Response to Comment HE-88: See Master Responses GEN-G1 and HER-G1.

Comment HE-89: Lake Tahoe is a state and national treasure. Of course, there is a way to take care of this problem without throwing poison into the lake, which will save its beauty for the people who live there and those who come after them. Please get creative in solving the weed problem. Set an example of positive creativity and not the standard poisons which, as we all know, won't just poison the weeds. Man's don't HAVE to be destructive as some people say, but rather can be creatively proactive and insightful.

Response to Comment HE-89: See Master Responses GEN-G1 and HER-G1.

Comment HE-90: The assumption that herbicide residue levels will result from “maximum label rates” distorts the estimates and modeling of actual dissipation (degradation, dilution). This premise ignores the fact that target weed susceptibility is variable and is driven by active ingredient concentration AND contact time. The proposed rates account for this differential susceptibility based on published laboratory, mesocosm and field data. Why can’t the Water Board specify rates consistent with the Proposed Project?

Response to Response to Comment HE-90: The DEIR/DEIS was conservative and protective by evaluating the potential effects of proposed herbicide applications at maximum allowable application rates, finding that adverse effects after mitigation were not expected to be significant. The draft NPDES permit specifies lower application rates of 2 ppm for endothall and 1 ppm for triclopyr, consistent with the APAP. These rates are less than one-half the maximum label application rates of 5 ppm for endothall and 2.5 ppm for triclopyr. The draft NPDES permit has limits on receiving water concentrations that are protective of beneficial uses. Also see response to comment ALT-44.

Comment HE-91: The Draft EIR/EIS did not address inert ingredients and adjuvants.

Response to Comment HE-91: Section 3.3.4 of the DEIR/DEIS evaluated potential effects of proposed herbicide products, including their inert ingredients, on water quality (e.g., oxygen demand, pH). Toxicity studies for product registration evaluate the combined effects of both active and inert ingredients. Table 2-2 states that no adjuvants (i.e., additives to enhance herbicide activity) would be used. Information on other ingredients is proprietary and not available.

Comment HE-92: Herbicides and all methods rely on repeat action. When will we see details on the Group B support methods, tails beyond the response flow chart

Response to Comment HE-92: Chapter 2 describes the proposed one-time application of herbicides under the CMT, other Group A methods, and Group B methods that would follow Group A method testing. Repeated use of herbicides would not be permitted under this project. See also Master Responses HER-G1 and AWM-G1.

Comment HE-93: I'd like the list of chemical degradants, too.

Response to Comment HE-93: Russell Norman of LWB emailed the list of active ingredients and degradants on July 10, including to Lauri Kemper.

- dipotassium salt endothall (component endothall acid);
- triclopyr triethlyamine salt (TEA) -components triclopyr acid,
- Degradants
- 3,5,6-trichloro-2-pyridinol [TCP],
- 3,6-dichloro-2-pyridinol (DCP)
- 5-chloro-2hydroxypyridine (5-CLP),
- 6-chloro-2hydroxypyridine (6-CLP)

Comment HE-94: Lake Tahoe deserves careful high quality management and real solutions, not band aids like the Proposed Project. Lake Tahoe is not a chemical testing ground and applying a band aid to a severed artery is not a solution. The health of Lake Tahoe comes first. Allowing the use of aquatic herbicides without due exploration of alternatives such as the restoration, barriers, and thoroughly testing non-chemical methods first would be dereliction of our duties to protect this national treasure.

Response to Comment HE-94: See Master Responses GEN-G1, ALT-G1,HER-G1, and RES-G1, and response ALT-17.

Comment HE-95: If you look back over history, years and years of things we thought were safe end up having long term unintended consequences. If there's an option to clean and control the weed situation without introducing chemicals, that has to be the first choice. She grew up in Lake Tahoe and appreciated the quality of the water and remembers drinking it all the time when swimming. Future children shouldn't be fearful of doing that because we've introduced new chemicals and unsafe items into the water system. The weeds to be dealt with but if there's an option that doesn't involve introducing foreign chemicals, it should be pursued first. Unless that fails, why introduce foreign chemicals into the Lake.

Response to Comment HE-95: See Master Rresponses GEN-G1 and HER-G1.

Comment HE-96: I grew up in Lake Tahoe and 40 years ago he would dive down and drink the lake water. Prior to testing any aquatic herbicides that can potentially cause more nutrients and mutation of weeds that could make them stronger and more difficult to eliminate, take the time to test all the non-chemical methods properly. This needs to be done on a large enough scale with enough time to see results before introducing chemicals. No Round Up for Lake Tahoe and let's try the natural method first.

Testing aquatic herbicides would not potentially cause more nutrients but could reduce overall nutrient loading to the water column from aquatic plant decay if the herbicides are successful in killing the plants when they are small compared to the greater nutrient release that occurs when fully mature plants naturally die back and decay later in the year. Roundup or other glyphosate herbicide products are not proposed for testing at Tahoe Keys. 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 not considered significant.

Response to Comment HE-96: See Master Responses GEN-G1, ALT-G2, and HER-G1. Use of Roundup or other glyphosate herbicide products are not proposed as part of the CMT.

Comment HE-97: Herbicides could be considered as a possibility after the other options have been thoroughly evaluated.

It's not genuine to say there are no significant impacts when you're talking about adding a foreign substance to Lake Tahoe that's never been done. Just the existence of that herbicide violates that objective to keep the Lake with levels of pesticides that are non-detectable.

Response to Comment HE-97: See response to Comment HE-22 regarding Basin Plan requirements for an exemption to the prohibition against using aquatic pesticides. See also Master Responses HER-G1 and ALT-G2 related to herbicide use, and WQO-G1 related to meeting water quality objectives.

Comment HE-98: Sierra Club is opposed to using herbicides.

We need to know how much better we can do with the non-chemical methods. The Sierra Club is opposed to using herbicides in Lake Tahoe and tributaries which are considered by the Environmental Protection Agency to be part of Lake Tahoe. If 75% of the weeds are removed, that leaves 25% of the weeds. These weeds just grow and grow, it means that Lahontan and TRPA will have to deal with weeds for the rest of time unless they close it off from the Lake. Once they close it off from the Lake, it's not a tributary anymore. They believe that a barrier that prevents the waters in the Tahoe Keys and their weeds and the poisons will not be discharged to the Lake. That includes the groundwater. She hopes that there will be a re-jigger and a reset while the agencies proceed to work on the project and solutions with greater emphasis than they have to date.

Response to Comment HE-98: See Master Responses GEN-G1, HER-G1, and AWM-G1, and response ALT-17.

Comment HE-99: [We] support the non-chemical path is that even a one-time herbicide test into Lake Tahoe as a tier three Outstanding National Resource Water with six filtration exempt water systems out of 60 in the country, isn't appropriate at this time.

Any introduction of herbicides in ONRW is not appropriate. Try non-chemical methods first.

Response to Comment HE-99: See Master Responses GEN-G1 and HER-G1.

Comment HE-101: Opposed to use of herbicides. Should never be used ONRW. Herbicides are a Band-Aid. Need to act quickly.

Response to Comment HE-101: See Master Responses GEN-G1 and HER-G1.

Comment HE-102: Treating invasive weeds in the Keys with herbicides will make a bad situation worse. I urge you to adopt Alternative AA1 in your Tahoe Keys DEIR. This will help reduce the harm done to the lake by development and preserve the lake's unique values for the enjoyment of all visitors and residents.

Response to Comment HE-102: See Master Responses GEN-G1, HER-G1, ALT-G1, and ALT-G2.

Comment HE-103: You must choose the option moving forward that will protect Lake Tahoe In the

long term. Someday, these housing developments will have come and gone, and what will be left is what you decided to protect. Will it be the beautiful Lake Tahoe with its clear pristine waters? Or will it be a noxious, invasive species, sediment from construction filled lake that could have been saved? Each choice you make will have lasting impacts. Please, on behalf of the lake, those who depend on and love it, and for the sake of doing the right thing, do not consider using toxic herbicides. There is a reason they are banned. Please consider generations to come.

Response to Comment HE-103: See Master Responses GEN-G1 and HER-G1.

Comment HE-104: The use of herbicides anywhere near Lake Tahoe is the stupidest idea ever! Adding poison to the lake will only further degrade what life exists there. If the Keys boat owners are having issues related to weeds, perhaps they need to unite and find some solid science to plain human manpower to rid themselves of the problem. Adding herbicides to the list of pollutants boaters are already putting into Tahoe via their boat engines and unreported spills, only adds to the potential demise of the lake we love so well. You can and should make more responsible choices than this.

Response to Comment HE-104: See Master Responses GEN-G1 and HER-G1.

Comment HE-105: I am a 60 year-old 47 year resident of Nevada. Using herbicides in or around Lake Tahoe is not an environmental nor economical way to address the weeds that the destruction of a natural wetland in 1959 to build the 1,500-home housing development and marina, the Tahoe Keys caused.

Response to Comment HE-105: See Master Responses GEN-G1 and HER-G1.

Comment HE-106: Follow the science! The mysis shrimp were introduced in the lake with good intentions and now are a BIG problem! Some say the herbicides are safe; really not known and too big a chance to take! Repair the damage done to nature!

Response to Comment HE-106: See Master Responses GEN-G1 and HER-G1.

Comment HE-107: Once you start using herbicides it never stops. When i still lived in Sonoma County i watched them use herbicides to try and get rid of ludwidgia in the Laguna de Santa Rosa. It never got all of it so it always grew back. I saw recently either on TV news or online that there are new ways of combating invasive water plants with ultraviolet light treatment. You should research that.

Response to Comment HE-107: See Master Responses GEN-G1 and HER-G1. Thank you for your comment on the use of ultraviolet light to treat aquatic invasive weeds. Ultraviolet light is one of the treatment methods that will be included in the Proposed Project, the Control Methods Test (CMT).

Comment HE-108: New ethics are needed vs the myopia of applying willy-nilly poorly understood pesticides and herbicides, creating long-term harms, while companies walk away from the places and people and ecosystems they have disrupted with massive profits. There are HOLISTIC ways to deal with all the "problems", methods that actually cost less in the long run if all the ignored "collateral damage" costs are considered. Our "modern" culture has for too long ignored healthy long-term thinking in favor of short-term myopic fixes and profits.

Response to Comment HE-108: See Master Response HER-G1.

Comment HE-109: I am absolutely opposed to any and all use of poisonous herbicides in the Keys

and any other waters that connect to Lake Tahoe -- a Tier 3 Outstanding National Resource Water. I oppose spending tens of millions of taxpayer dollars for the convenience of boat-owners at the Tahoe Keys. I join The Sierra Club Tahoe Area Group in defending the purity of Lake Tahoe.

Response to Comment HE-109: See Master Response GEN-G1 and HER-G1.

Comment HE-110: I live at Lake Tahoe and do not want herbicides in my drinking water.

Response to Comment HE-110: See Master Response GEN-G1 and HER-G1.

Comment HE-111: We must do all we can to save Tahoe! No herbicides@

Response to Comment HE-111: See Master Responses GEN-G1 and HER-G1.

Comment HE-112: Throwing poisons at/in/on an already toxic situation in Lake Tahoe will only degrade the quality and safety of our beautiful lake even further. It is WE the humans who need to change our destructive attitudes and behaviors in order to save Lake Tahoe, and life on earth.

Response to Comment HE-112: See Master Responses GEN-G1, HER-G1, and WQ-G1.

Comment HE-113: We love this lake and don't want to see it damaged with herbicides or dredging.

Response to Comment HE-113: See Master Response GEN-G1 and HER-G1.

Comment HE-114: My son was born in South Lake Tahoe. I love the lake. Now I reside in Reno but the lake has a special place in my heart. I usually come to hike in the mountains around it and snowshoe in the winter. Every time I look at the lake it gives me peace and happiness. It heals my soul and gives me strength to keep going. The purity of its waters must be kept. Just to benefit a few, please refrain for using herbicides. Every time we change Nature, we are destroying the way things work. When man intervene in the natural process of Mother Nature we will have to dealt with the consequences. Thanks for taking your time to read my deep concerns about this matter.

Response to Comment HE-114: See Master Responses GEN-G1 and HER-G1.

Comment HE-115: I live at the lake and don't want to be poisoned.

Response to Comment HE-115: See Master Responses GEN-G1 and HER-G1.

Comment HE-116: Though I live in Carson City I recreate all over the Sierra's and am particularly fond of Lake Tahoe. The Lake needs to be preserved and protected and the plan to use herbicides will do just the opposite. They should not be allowed anywhere near Lake Tahoe. There are ways to stop the spread of invasive weeds that do not require using harmful herbicides and these methods need to be used instead.

Response to Comment HE-116: See Master Responses GEN-G1 and HER-G1.

Comment HE-117: We can see what happens when wetlands are invaded by humans and can't function properly. Lesson learned. However, Lake Tahoe is a national treasure and we must be good stewards and not mess it up yet again. Poison is poison.

Response to Comment HE-117: See Master Responses GEN-G1 and HER-G1.

Comment HE-118: The herbicides chosen for consideration in this program pose risks of potential health and environmental harm not fully assessed in the EIR/EIS, and the non-herbicidal methods alone may prove sufficiently effective for the weed control sought. The Proposed Project, Action Alternatives, and the No Action Alternative all could have potentially significant effects to water quality issues (water temperature, turbidity, dispersal of aquatic fragments, changes in pH, dissolved oxygen, total phosphorus, and total nitrogen concentrations) and aquatic community stability (species diversity, species dominance, seasonal succession). The limited herbicide spot-treatment usage as part of the Proposed Project poses substantial localized risks to human health and environment. A full-scale herbicide use throughout the Tahoe Keys lagoons would be seriously detrimental to the Keys and potentially to the broader Lake Tahoe.

Response to Comment HE-118: See Master Rresponses GEN-G1, ALT-G1, HER-G1, and WQ-G1.

Comment HE-119: The TWSA Board continues to support the testing of non-herbicide methods before chemical treatment is considered. The USEPA and Californian EPA both recognize Lake Tahoe as an "Outstanding National Resource Water, Tier 3. (ONRW). There are only two ONRWs within the State of California. The State of Nevada has classified Lake Tahoe as "A Water of Extraordinary Aesthetic or Ecological Value". These designations warrant the thorough testing of non-chemical methods to precede any herbicide testing. 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), is not appropriate at this time, before non-chemical methods have been tested on a larger scale.

Response to Comment HE-119: 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." USEPA 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. The Federal regulations and policies do not state that all non-chemical methods must be demonstrated prior to authorizing use. See Master Responses ALT-G2, HER-G1, and WQO-G1. Also see response AQU-13.

Comment HE-120: TWSA has concerns that the herbicides selected will have limited effect on all three species of concern (Issue AQU-2). Chemical removal of Eurasian Water Milfoil (EWM) may offer Curlyleaf Pondweed (CP) an unintended competitive advantage. This is a major uncertainty with proposed chemical treatment.

> Endothall = non-selective, kills all 3 target plants, but is contact type only, not systemic
> Triclopyr = selective, systemic; kills EWM and CP - but not Coontail Procelleacor (Florpyrauxifen-benzyl) selective, systemic; possible only kills EWM
> Procelleacor (Florpyrauxifen-benzyl) is still pending CA EPA approval. TWSA feels it is inappropriate to consider an unapproved product in this CEQA DEIR/DEIS.

Response to Comment HE-120: Although the herbicide products proposed for testing may have limited effects on all three species of concern, which is why the CMT under consideration is an appropriate means to determine the relative effectiveness of different methods. Though shown to be effective elsewhere, the effectiveness of each aquatic herbicide proposed in the CMT has not yet been demonstrated in the Tahoe Keys lagoons. Florpyrauxifen-benzyl was evaluated in the DEIR/DEIS but would not be permitted if it is not approved for use by California EPA.

Comment HE-121: EH-3d West Channel monitoring and contingencies (page ES-11). States "If herbicides are detected within the West Channel, additional monitoring stations would be sampled outside the Tahoe keys in Lake Tahoe and monitoring would continue south and north of the

channel. Recommend if herbicides are tested, the monitoring plan should specify that the laboratory be required to Rush turn-around-time for results, and not wait the full holding time

Response to Comment HE-121: Samples collected from Contingency Monitoring Locations for analysis of herbicide active ingredients and degradants will be sent to a certified laboratory for analysis on a 24-hour rush turnaround request, as specified in the MMRP.

Comment HE-122: EH-3b states "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." This is repeated in EH-3d. If shut off the water supply, people cannot flush toilets and they cannot stay in their homes. Appropriate response would be that TKPOA issue a notice to residents not to drink the water and supply drinking water (bottled water) to the residents.

Response to Comment HE-122: See Master Response WS-G1.

Comment HE-123: 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.

Response to Comment HE-123: See Master Responses ALT-G1 and HER-G1.

Comment HE-124: In regards in determining the utility of and potential for integrating aquatic herbicides into Lake Tahoe we are hesitant to experiment with chemicals in the lake before we have scientific-based evidence proving 1.) no long-term water contamination and 2.) no long-term adverse effects on health.

Response to Comment HE-124: The CMT proposes a one-time test of aquatic herbicides at sites in the West Lagoon 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 is evaluated as Issue EH-2 in Section 3.2, with a finding that risks of long-term water contamination would be less than significant. Potential long-term adverse effects on health are evaluated as Issues EH-1, EH-3, and EH-4 in Section 3.2, also concluding that risks of long-term adverse effects on health would be less than significant. See also Master Response HER-G1.

Comment HE-125: One more concern we would like to address is the dangers of herbicides and the chemicals they break down into once they are introduced. Pesticides and herbicides have been increasing in our aquatic ecosystem. Once these compounds breakdown, it can take days, months, and even years before degrading.

The persistence of herbicide active ingredients and degradants is addressed in Section 3.2 as issue EH-2. Even without expected dilution within the lagoons, available information on the chemicals indicate that they would break down and not be detectable after a few weeks or months.

Response to Comment HE-125: See Master Response HER-G1.

Comment HE-126: The limited herbicide spot-treatment usage as part of the Proposed Project poses substantial localized risks to human health and environment as earlier detailed. A full-scale herbicide use throughout the Tahoe Keys lagoons would be seriously detrimental to the Keys and potentially to the broader Lake Tahoe.

Response to Comment HE-126: See Master Responses ALT-G1 and HER-G1.

Comment HE-127a: Herbicide risks not fully considered in the EIR/EIS.

Response to Comment HE-127a: Florpyrauxifen-benzyl (ProcellaCOR EC liquid) is a recently registered systemic herbicide in the U.S. that is a member of a new class of synthetic auxins (plant growth hormones), the arylpicolinates. The herbicide differs in binding affinity compared to other currently registered synthetic auxins and is effective at substantially lower concentrations than existing aquatic herbicides. Synthetic auxins at herbicidal rates overstimulate plant growth and cause excessive elongation of plant cells that ultimately kills the plant. Susceptible plants will show a mixture of atypical growth (larger, twisted leaves, stem elongation) and fragility of leaf and shoot tissue. Conceivably, an indirect environmental impact of a synthetic auxin used in spot treatments, as its use is proposed in the weed control test program, is stimulation and excessive weed growth in untreated areas adjacent to the treatment plots due to diluted dispersal of the synthetic plant growth hormone—hence, potentially exacerbating an aquatic weed problem in untreated areas.

Florpyrauxifen-benzyl was evaluated in the DEIR/DEIS but would not be permitted if it is not approved for use by California EPA.

Comment HE-127b: This herbicide has not presently been approved for use by California and may not be included in the test program unless approved. EPA has identified no risks of concern to human health since no adverse acute or chronic effects, including carcinogenicity or mutagenicity, were observed in the submitted toxicological studies for florpyrauxifen-benzyl regardless of the route of exposure. However, the European Food Safety Authority (EFSA) determined that the endocrine disruption potential for this compound has to be addressed with regards to the occurrence of mammary gland tumors observed in males in a 2-year rat study. It was recommended that the underlying mode of action needs to be investigated with at least in vitro studies (e.g. estrogen receptor binding and transduction assay).4 For ecological effects, no toxicity of concern to terrestrial non-plant wildlife was identified in the submitted studies. However, although risks to aquatic animals were deemed minimal by EPA, a deeper examination of the data do raise some uncertainties and legitimate concerns. A key confounder is that florpyrauxifen-benzyl is a difficult-to-test substance with maximum native solubility of ~15 µg/L and only around 50 µg/L with use of a cosolvent. Although no mortalities to aquatic animals were observed up to solubility limits in acute exposures, certain sublethal effects were recorded. In chronic exposures, the mysid (Americamysis bahia) and midge (Chironomus dilutus), toxic effects were recorded at the lowest concentrations tested (LOAEC 1.1 µg/L and LOAEC 4 µg/L respectively) such that NOAEC values could not be determined. Therefore, statistically significant effects below concentrations of 1 to 4 µg/L can be expected. Albeit the maximum label rate for the PorecellaCOR EC liquid is 50 µg/L, the maximum proposed rate for the project is listed as 3 µg/L which would indicate a potential threat to aquatic invertebrates with similar sensitivities, such as the mysid Mysis relicta which can be found in the Tahoe Keys lagoons.

Although the mysid M. relicta is a non-native species introduced into Lake Tahoe in the early 1960s and considered somewhat invasive and detrimental to Lake Tahoe clarity, toxicity of florpyrauxifen-benzyl to mysids is nonetheless relevant as a surrogate for other potentially susceptible aquatic invertebrate taxa. Toxicity data reported in EPA's risk assessment were for only seven species to represent literally thousands of aquatic invertebrate species, and two of these tested species (a mysid and a midge) demonstrated sensitivity below the expected exposure concentrations. Therefore, the use of florpyrauxifen-benzyl in the Tahoe Keys weed control test program would likely impact invertebrate populations and community with uncertain long-term consequences.

Response to Comment HE-127b: Only the risks of acute exposure are pertinent since the limited testing period would assure that no chronic exposures over months or years with potential sublethal effects would occur. No chronic exposures to herbicides, defined as continuous or repeated contact with a toxic substance over a long period of time (months or years (Center for Environmental Health 2019) would occur as part of the CMT.

Comment HE-127c: Triclopyr (Renovate liquid or granular) is in the carboxylic acid chemical family and another, though structurally different, synthetic auxin that, similar to other herbicides with this mode of action, causes the growing tips of the plant to elongate, followed by distortion, withering, and the death of the plant. The most common breakdown product of triclopyr in mammals, as well as in soil and water, is 3,5,6-trichloro-2-pyridinol (TCP) and also, of note, the highly toxic and controversial organophosphate insecticide chlorpyrifos which is banned in California. The most significant health hazard identified for TCP is that it may be especially hazardous to children. Researchers studied the ability of TCP to disrupt the development and maturation of the nervous system that occurs in fetuses, infants, and children. Using a laboratory test system (a cell culture), the researchers showed that exposure to TCP inhibits neurons (nervous system cells) from undergoing normal growth. Concentrations of only 0.2 ppm were sufficient to disrupt growth. Concentrations equal to this level have been measured in the brains of fetal laboratory animals whose mothers were exposed to pesticides. In addition, when researchers compared TCP concentrations in brains of fetal laboratory animals with those in their mothers' brains, the fetal concentrations were between two and four times greater than those in maternal brains, suggesting that TCP accumulates in fetal brains. TCP also poses an environmental hazard as it is "very mobile" in a variety of soil types and is also often more persistent than triclopyr itself. The Renovate product for aquatic weed control contains the triclopyr triethylamine salt. Triethylamine is damaging to eyes and can cause abnormal vision and irreversible eye damage, it is extremely destructive to skin and the upper respiratory tract with symptoms of exposure that include coughing, wheezing, headache, and nausea.

Response to Comment HE-127c: The CMT would use drop hoses to apply liquid herbicide products, or granular products would be spread on the water surface within test sites, thus eliminating the possibility of liquid spray drift. The only exposure pathway for human is the potential exposure from workers handling the pesticides. Exposure from drinking water is unlikely as explained in WS-G1. And potential direct exposure of other people to herbicides is not evaluated as a separate issue due to a lack of exposure routes. The exposure of humans to harmful concentrations of herbicides and degradants is only a potentially significant concern to workers that are handling and applying the herbicide products. TCP itself has a level of toxicity comparable to triclopyr and is far less persistent than triclopyr in aquatic systems (WDOE undated). The registration labels and safety data sheets (SDS) 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. Protection of drinking water supplies is addressed as Issue EH-3 in Section 3.2. The product label for Reonovate 3 (active ingredient triclopyr) states precautions for potable water intakes at lake applications, including setback restrictions of up to 500 feet for applications less than 4 acres. As summarized in the response to comment HE-127d, drinking water intakes are approximately one mile or more from proposed test sites.

Comment HE-127d: Endothall (Aquathol K liquid) is a currently-registered herbicide that is used for direct application to water (primary use) to control exotic and invasive plants. Endothall acid is the active ingredient in all of the endothall-containing herbicide formulations but is only formed as a degradation product. The endothall formulations consist of one of two endothall acid salts, either a dipotassium salt (Aquathol K) which is proposed for use in the weed control methods test or an N,N-dimethylalkylamine salt. The dissociation constants of both of the endothall salts indicate that at most environmental pH levels, the endothall salt, endothall acid, and the corresponding cation (potassium or coco-alkylamine) will all be present. In addition, there are significant differences in toxicity to certain organisms between the endothall dipotassium salt and the endothall N,N-dimethylalkylamine salt, the dipotassium salt being less toxic. Persistence (half-life) of the endothall acid (active ingredient) is expected to be <10 days in treated areas, however in EPA's exposure

assessment for direct application of Aquathol K to an impoundment with an initial target exposure of 5 mg/L, the Estimated Exposure Concentration (EEC) at subsequent time intervals post-application was:

- 4-day = 4.7 mg/L
- 21-d = 3.8 mg/L
- 60-day = 2.4 mgL
- 90-day = 1.8 mg/L

These concentrations would be expected to represent the upper bounds for endothall concentrations in the immediate vicinity of the weed control project endothall treatment sites. These concentrations pose a severe risk to finfish as significant reductions in survival, length, and wet weight were reported in a 28-day fathead minnow early life stage test at 2.6 mg/L for endothall acid which exceeds the relevant EEC. Early life stage data are not available for Aquathol K or endothall acid for coldwater salmonid species that are prevalent in Lake Tahoe. Likewise, no life-cycle or reproduction toxicity data are available to assess chronic risk of endothall dipotassium salt or acid to fish. Additionally, there are insufficient data to assess potential endocrine disrupting effects of endothall in aquatic organisms. The target endothall treatment rate of 5 mg/L and maximum concentrations that may be expected for several weeks in the Tahoe Keys test plots and adjacent lagoons exceed the MCL for endothall in drinking water established by EPA of 0.1 mg/L. This will pose a significant risk to drinking water drawn from the Tahoe Keys waters and precautions/mitigation considered in the EIR/EIS may not be sufficient to prevent contaminated water supplies.

Response to Comment HE-127d: In EPA's exposure assessment, aquatic modeling overestimates the EECs in the aquatic environment from labeled aquatic weed use because the model assumes 100% of the pond being treated (EPA 2005). The label warns against treating all of the pond /lake/reservoir (EPA 2005). Herbicide applications will follow product label specifications during the CMT. The APAP states that there are no direct raw, potable water intakes located within or adjacent to the Tahoe Keys lagoons (TKPOA 2018). Wells located within the lagoons draw water from 150 to 430 feet below the ground surface, and the nearest public drinking water intakes operating under filtration exemption in Lake Tahoe are near Lakeside Marina, approximately four miles to the east of the West Channel of the West Lagoon; the nearest private drinking water sources are reported in public scoping comments to be located in the Jameson Beach community north of Pope Marsh approximately one mile west of the West Channel entrance. In Section 3.2, the fate and environmental persistence, potential to reach drinking water sources at detectable concentrations, and potential effects to aquatic life from endothall are evaluated in Issues E-2 through E-4, supporting conclusions that risks posed from endothall to drinking water or aquatic life under the proposed CMT would be less than significant. See also Master Rresponse WS-G1.

Comment HE-128: I grew up near the Lake and now my kids live here. I'm so proud of it and I've heard about the Herbicide issues on NPR. Very concerned!

Response to Comment HE-128: See Master Responses GEN-G1 and HER-G1.

Comment HE-129: The efforts by so many to preserve the clarity of Lake Tahoe will be undermined by poisoning Lake Tahoe with herbicides! Please be responsible and work to find a safe, non-chemical method. We know it is possible if we work together! Thank You.

Response to Comment HE-129: See Master Responses HER-G1 and GEN-G1, and response AWM-4.

Comment HE-130: Herbicides are never the answer!! We need to stop using poisons and find

alternative ways to control invasive weeds.

Response to Comment HE-130: See Master Response HER-G1.

Comment HE-131: Herbicides should not be added to the drinking water supply of thousands or residents of Lake Tahoe. Many other solutions are available and no cost savings is worth poisoning the lake.

Response to Comment HE-131: See Master Responses GEN-G1, WS-G1, and HER-G1.

Comment HE-132: Analysis of Proposed Herbicides. The EPA has the following observations concerning the herbicides included in the DEIS for potential application during the Control Methods Test (CMT):

Endothall: There are three forms of Endothall that EPA's Office of Pesticide Programs (OPP) has assessed in the registration process (2005 risk assessment: https://beta.regulations.gov/document/EPA-HQ-OPP-2009- 0081-0143). Endothall is applied as either the dipotassium salt or the alkylamine salt. Either way, the chemical breaks down quickly to endothall acid, which is the active herbicide. It is appropriate for any post-application monitoring to look for the endothall acid. For aquatic life, the alkylamine salt is more toxic (2-3 orders of magnitude) than either of the other two, which are of similar toxicity. Per the EPA Reregistration Eligibility Decision, the acid breaks down in <10 days (this degradation rate is consistent with that reported in the Pesticide Properties Database: https://sitem.herts.ac.uk/aeru/ppdb/en/Reports/265.htm.) Recommendation: The EPA recommends that the Final Environmental Impact Statement (FEIS) contain information concerning post-application monitoring of Endothall if it is proposed to be used in the CMT. Such monitoring should be for endothall acid.

Florpyrauxifen-benzyl: There is one product registered for aquatic use: ProcellaCOR EC (EPA Reg No 67690-80). There could be others, but most products with this active ingredient are not registered for use in water. According to the registration spreadsheet, a product containing Florpyrauxifen-benzyl has yet to be registered in California, so this herbicide should not be used in the CMT before that happens. Recommendation: The EPA recommends that the Final Environmental Impact Statement (FEIS) contain information concerning the California registration status of Florpyrauxifen-benzyl, and confirm that this herbicide will be registered for use in California before it is used in the CMT.

Triclopyr triethylamine salt (rapidly dissociates into triclopyr acid in water): The EPA's most recent risk assessment includes a complicated assessment of degradates, but summarizes it as follows: "The major degradates of triclopyr acid are TCP and 3,6 DCP and both are exposure concerns. Additionally, the degradates 5-CLP and 6-CLP could also be of exposure concerns as they are expected to form in major amounts in some aerobic aquatic systems .Exposure modeling was conservatively executed considering the maximum label rates and minimum application intervals." The spreadsheet for the Tahoe Keys project includes only TCP and 2-MP as degradates. 2-MP (Chemical Abstracts Service [CAS] No. 3155-34-3) is called TMP in the EPA risk assessment and is found to be a minor degradation product. The full document is here: (https://beta.regulations.gov/document/EPA-HQ-OPP-2014-0576-0026), and includes information about relative persistence and toxicity of degradates. Recommendation: The EPA recommends that the Final Environmental Impact Statement (FEIS) include information concerning all degradates of Triclopyr triethylamine salt.

Response to Comment HE-132: USEPA comments are accurate and their recommendations will be followed. The NPDES permit monitoring requirements include analyses for endothall acid. Florpyrauxifen-benzyl was evaluated in the DEIR/DEIS, but florpyrauxifen-benzyl would not be

permitted if it is not approved for use by California EPA . CFEH 2019).

Comment HE-133: I have been coming up to Lake Tahoe for years and have enjoyed swimming in its beautiful clear waters in the summer and have enjoyed skiing in the winter. I was shocked to learn how a group of homeowners have applied for a permit to put herbicides into their lagoons in the Tahoe Keys. Apparently, this invasive weed issue has existed for decades and although there are long-term nontoxic methods available such as Laminar Flow Aeration(LFA), UV light and a few other nontoxic methods, the Tahoe Keys has decided to also fight the weeds with herbicides.

Response to Comment HE-133: See Master Responses ALT-G1, GEN-G1 and HER-G1. Thank you for your comment on the use of laminar flow aeration (LFA) and ultraviolet light to treat aquatic invasive weeds. Both LFA and ultraviolet light will be included as treatment methods in the Proposed Project, the Control Methods Test (CMT).

Comment HE-134: The EIR/EIS fails to disclose or analyze the non-active ingredients in the herbicides proposed for use. Without this information, it is impossible to determine and disclose the complete suite of possible environmental effect of use of herbicides.

Response to Comment HE-134: Section 3.3.4 of the DEIR/DEIS evaluated potential effects of proposed herbicide products, including their inert ingredients, on water quality (e.g., oxygen demand, pH). Toxicity studies for product registration evaluate the combined effects of both active and inert ingredients. Table 2-2 states that no adjuvants (i.e., additives to enhance herbicide activity) would be used. Information on other ingredients is proprietary and not available.

Comment HE-135: Lk. Tahoe is UNIQUE. We must do everything possible to preserve it's purity and clarity and protect the natural balance of its wetlands' purifying actions. Please deny the use of herbicides to control weeds in Tahoe.

Response to Comment HE-135: See Master Responses GEN-G1, HER-G1, and HER-G1, and response AWM-4.

Comment HE-136: It is SO important to PROTECT Aquatic Ecosystems and NOT use any chemical herbicides!!! SOME humans want to use DANGEROUS and DEADLY HERBICIDES to KILL the weeds which WILL harm the marsh! ENOUGH!

Response to Comment HE-136: See Master Response HER-G1.

Comment HE-137: I am writing to express my concern of the use of aquatic herbicides in Lake Tahoe, including and specifically in the Tahoe Keys. Testing all non-chemical methods adequately, with the proper amount of time and large areas (at least 10% the size of the over 170 acres of the Keys) [sic] needs to be done before resorting to any testing of aquatic herbicides that are proven do not work as a one-time solution when the major sources of nutrients have not been eliminated and resolved.

TRPA is responsible primarily for the health of Lake Tahoe and they need to ensure the most natural and innovative methods are used for resolving the issues with the weeds. They cannot ignore that aquatic herbicides have been proven to cause weeds to mutate, get stronger, and will have to be applied more often and in higher doses as time goes by unless they get the source of the problem resolved. Oxygen, circulation and temperature of the water must be resolved first. Existing and future nutrients must be reduced no matter what else is done, and especially before they try the aquatic herbicides! A good start would be to replace all public and private grass in the keys with Astroturf.

In addition to testing non-chemical Group A methods at 17.8 acres of test sites, the CMT proposes to

test herbicides so that more time is not lost in evaluating the efficacy of all Group A methods that may be able to achieve project objectives for aquatic weed control. LFA would be tested for three years (and five years where Site 26 would continue the LFA test started in 2019), and an option is included for a second year of treatments at UV light test sites. The CMT would provide information on whether Group B spot treatments can be successful in maintaining and improving the aquatic weed reduction accomplished by Group A methods, including a one-time application of herbicides. As illustrated on Figures 3.3.4-16 and 3.3.4-19 and described in Appendix F, 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. 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 not considered significant because mutations and adaptations have only resulted from long-term, repeated herbicide use. See also master response HER-G1.

Response to Comment HE-137: See Master Responses GEN-G1, ALT-G2, and HER-G1, and response AWM-56.

Comment HE-138: The limited herbicide spot-treatment usage as part of the Proposed Project poses substantial localized risks to human health and environment. * A full-scale herbicide use throughout the Tahoe Keys lagoons would be seriously detrimental to the Keys and potentially to the broader Lake Tahoe.

Response to Comment HE-138: See Master Responses GEN-G1, WQ-G1 and HER-G1.

Comment HE-139: As a user of Lake Tahoe, I am greatly concerned about the herbicide use. The lagoons flow directly into Lake Tahoe and are the source of aquatic invasive weeds that are now showing up regularly around the entire lake, including the north shore. Because of continued spread of these weeds throughout the lake, I am concerned that herbicide use in the lagoons will lead to herbicide use throughout the lake ecosystem to control the weeds. People drink from Lake Tahoe, even the LPA, the closest water company to the Tahoe Keys area and draws its water directly from Lake Tahoe, is against the use of herbicides; they have even gone so far as to publicly state "LPA has no water treatment facilities to filter this contaminate from its water supply and there is no certainty the herbicide will dissipate, as this has never been proven in Lake Tahoe." I urge you to invest in the Alternative AA1 before even looking towards herbicides.

Response to Comment HE-139: See responses WS-9, WS-10, and Master Response HER-G1.

Comment HE-140: My problem with the EIR EIS is it appears authors have simply taken and accepted herbicide manufacturers' specs and data as fact when reviewing safety claims regarding possible unhealthy effects on drinking water and water wells. This information is probably biased in favor of the herbicide manufacturers and should not be blindly relied upon. Remember Methyl tert-butyl ether (MTBE) was supposed to be safe per the manufacturer specs and was found to be otherwise.

Response to Comment HE-140: The statements about drinking water safety were based on information provided by the USEPA and state agencies such as Wisconsin Department of Natural Resources (WI DNR) The drinking water MCL for endothall is 0.1 mg/L (ppm). Florpyrauxifen-benzyl was evaluated in the DEIR/DEIS, but florpyrauxifen-benzyl would not be permitted if it is not approved for use by California EPA.

Comment HE-141: Applying aquatic herbicides will not address the cause of the problem. The Keys' lagoons are hydrologically connected to Lake Tahoe, which is designated by the USEPA to be a Tier 3, Outstanding National Resource Water. Herbicide application would be required in perpetuity and inevitably lead to herbicide use throughout the lake. Don't want Roundup poured into Lake Tahoe; it is a carcinogen.

Response to Comment HE-141: Florpyrauxifen-benzyl was evaluated in the DEIR/DEIS, but florpyrauxifen-benzyl would not be permitted if it is not approved for use by California EPA. See Master Response HER-G1 Use of Roundup or other glyphosate herbicide products are not proposed as part of the CMT.

Comment HE-142: Experience in other lakes throughout the country indicates that aquatic herbicides require repeated applications because the herbicides fail to completely kill the weeds, particularly their seeds and roots. Thus, herbicide application would be required in perpetuity and inevitably lead to herbicide use around the lake with no time limits established. The Lead Agencies assert that the aquatic herbicides are safe because they have been approved by the USEPA. However, the USEPA has asserted that Roundup and other pesticides are safe. I think most people would not want Roundup poured into Lake Tahoe Ongoing TV commercials offer legal assistance to cancer victims who have used Roundup, talcum powder, various medications, and other "approved" substances and materials.

Response to Comment HE-142: See Master Responses GEN-G1 and HER-G1 Use of Roundup or other glyphosate herbicide products are not proposed as part of the CMT.

Comment HE-143: The League has concerns about any use of chemicals at Lake Tahoe and understands that any consideration of their use, even for testing, needs to provide numerous protections, mitigation and extensive monitoring. We are encouraged by the analysis in the DEIR/S and the successful use of the proposed chemicals in other lake environments. As the DEIR/S points out, the Proposed Project would apply lower concentrations than what is allowed by USEPA. There would also only be one application – not ongoing applications as allowed by the USEPA. 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. 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.

Response to Comment HE-143: See Master Response GEN-G1.

Comment HE-144: A short delay to further evaluate non-chemical methods is needed before proceeding with herbicides

Response to Comment HE-144: See Master Response HER-G1.

Comment HE-145: The second paragraph of section 2.3 (page 2-9) states: "Barriers in place to prevent herbicide movement toward the West Channel would be briefly pushed below the surface just enough to enable the passage of shallow-bottom boats used for mechanical harvesting and fragment control. The boat motors would be turned off during passage to prevent any damage to the barrier from propellers." Lowering of the barriers even temporarily as proposed would allow herbicide-contaminated waters to contaminate and degrade waters on the other side of the barrier, allowing dispersion of herbicides to areas not intended to receive herbicides and potentially causing significant environmental impacts to a larger area. This allowance would render the barrier mitigation measure ineffective.

Response to Comment HE-145: See response to comment HE-151.

Comment HE-146: The application of herbicides would result in the poisoning of Lake Tahoe, either as a test project or as a regular application. It is unnecessary to use toxic herbicides when you have effective nontoxic solutions already in place.

- none of you see that adding herbicides will only make matters worse. I say that because you have produced an EIR that is pro-herbicide.
- the elevated water temperature of the lagoons will affect the toxicity of the herbicides and make it more potent, thereby creating more long-term hazards that your EIR has not explored.

Because your EIR promotes herbicides, it gives the false impression that herbicides are the answer when in fact it is the opposite. Herbicides will be the death of Lake Tahoe. They will speed up the destruction that the weeds and cyanobacteria have started and will keep all of us imprisoned in the never-ending cycle of poisoning the lake. You all know what has happened to other lakes that tried this approach, right? Given that Lake Tahoe is a Tier 3 waterbody, herbicides should never even be considered, even for a moment, and especially for a group of homeowners whose lakeside boating privileges take precedence over public safety and is the real reason that we are in this mess in the first place.

See Issue EH-2 in Section 3.2 for information about the environmental fate of herbicides proposed in the CMT and measures to contain them within areas of the lagoons. Chemical migration toward greater Lake Tahoe would be controlled by double turbidity curtain barriers and degradation of the chemicals. The risk of detectable concentrations reaching Lake Tahoe proper is less than significant. Macrophyte surveys in the Tahoe Keys lagoons in 2020 continued to show that most areas are infested with dense aquatic weed beds and effective nontoxic solutions are definitely not in place. Information on potential toxicity of herbicides cited under Issue EH-4 in Section 3.2 applies to the range of temperatures that can be expected in lagoon waters. The CMT proposes a one-time test of aquatic herbicides, and no long-term hazards would occur due to chemical degradation and dilution. The CMT and action alternatives also propose testing the effectiveness of non-chemical methods to see how they perform in controlling aquatic weeds in the Tahoe Keys lagoons.

Response to Comment HE-146: See Master Responses ALT-G1, GEN-G1, and HER-G1,

Comment HE-147: Use of aquatic herbicides as a treatment method would be “a method that has never been utilized in Lake Tahoe before-..”

Response to Comment HE-147: See Master Responses GEN-G1 and HER-G1.

Comment HE-148: The use of herbicides in Tahoe Keys cannot reasonably be expected to be a one-time event, as there is no documented evidence that a one-time use of aquatic herbicides effectively reduces invasive aquatic weeds. The Draft EIR/EIS does not provide any supporting evidence for the assertion that a one-time use of herbicides will be effective for longer than a few months. In fact, TKPOA’s application dated July 25, 2018, requested exemption for 12 years of herbicide treatment. For reasons that are not disclosed, Appendix C of the Draft EIR/EIS contains a different application, dated July 12, 2018, which does not discuss any long-term herbicide use. However, the July 25, 2018, application proposes to apply aquatic herbicides to the Lagoons for up to ten years after the initial two years of project implementation, with protocols based on lessons learned during the initial two years. This application also contains information about several environmental impacts of weed control in the Lagoons, information that would contribute significantly to assessing impacts but which is not readily available to the public. The request for an exemption for up to 12 years of herbicide use shows that TKPOA strongly doubted that a one-time application would suffice. Our

comments point out that experience elsewhere suggests that indefinite repeated applications would almost certainly be required, and the project proponents concur.

Response to Comment HE-148: The project proposes to test the extent to which knocking back aquatic weeds with a one-time application of aquatic herbicides, followed by implementing Group B aquatic weed control methods, is effective at reducing and controlling target aquatic weeds in the lagoons. Effectiveness is not asserted in the DEIR/DEIS, but would be evaluated by implementing the test. See also Master Response HER-G1.

Comment HE-149: TKPOA has recognized the need for repeated herbicide treatments to be effective in two of their NPDES and Basin Plan Pesticide Prohibition Exemption applications. However, the Draft EIR/EIS asserts that a one-time use of herbicides and subsequent non-chemical spot treatments will so effectively reduce the weeds that further herbicide applications will not be needed. If the Lead Agencies continue to assert that a one-time herbicide application and follow-up spot treatments will be effective, the Revised Draft EIR/EIS should provide evidence that similar infestations have been effectively treated by a single application of herbicides. Repeated use of herbicides does not meet the definition of "temporary and short-term changes in the water quality."

Response to Comment HE-149: See response HE-148 and Master Response HER-G1.

Comment HE-150: There is no discussion in the Draft EIR/EIS of the herbicides' inert (other) ingredients or the herbicides' adjuvants, materials added to a pesticide formulation prior to application. Very little information is generally available on an herbicide's other ingredients because the identity of the other ingredients is often regarded as proprietary information. This lack of information often makes pesticide risk assessments incomplete. "While EPA encourages expanded inert statements on product labels that specifically identify the inert ingredients, doing so is not a requirement." (Durkin, SERA TR-052-16-04a, 2009) When information on other ingredients is disclosed, the toxicity information is often limited. The Human Health and Risk Assessment of Endothall by Durkin (2009) states: "The very limited acute inhalation data on endothall (Section 3.1.13) suggests that the formulations may be more toxic than technical grade endothall with respect to inhalation exposure." Moreover, USEPA changed the term from "inert" ingredients to "other" ingredients in recognition of the potential toxicity of these ingredients. This Draft EIR/EIS does not mention inert ingredients or adjuvants once. Therefore, the environmental analysis of the impacts of the herbicides to be used is woefully inadequate.

Section 3.3.4 of the EIR/EIS evaluated potential effects of proposed herbicide products, including their inert ingredients, on water quality (e.g., oxygen demand, pH). Toxicity studies for product registration evaluate the combined effects of both active and inert ingredients. Table 2-2 states that no adjuvants (i.e., additives to enhance herbicide activity) would be used. Information on other ingredients is proprietary and not available.

Response to Comment HE-150: See responses HE-91 and HE-134.

Comment HE-151: The second paragraph of section 2.3 (page 2-9) states: "Barriers in place to prevent herbicide movement toward the West Channel would be briefly pushed below the surface just enough to enable the passage of shallow-bottom boats used for mechanical harvesting and fragment control. The boat motors would be turned off during passage to prevent any damage to the barrier from propellers." This proposed lowering of the turbidity curtains would immediately cause mixing of the waters inside and outside the curtains and thus completely nullify this supposed mitigation measure. The Draft EIR/EIS fails to address this very likely release of herbicides to the surrounding waters. The response to these comments and the revised Draft EIR/EIS must also address this issue.

Response to Comment HE-151: This comment appears to suggest that lowering the top of a double turbidity curtain for a few seconds to allow passage of a shallow-bottom boat would make the barrier ineffective, as if it was never there. Even if at the most 1% of the barrier would be lowered for 30 seconds, the barrier would be in place more than 99.96% of the day where lowered and the rest of the barrier would be in place 100% of the day. The amount of mixing and exchange of water containing herbicide during the lowering would be so minimal under this circumstance that the chemicals would not likely be detectable outside the treatment area. Herbicide monitoring outside the barrier would include sampling after the turbidity curtain was lowered for boat passage.

Comment HE-152: I vehemently do NOT support herbicide use in the Tahoe Keys. Private industries should not be allowed to "massage" regulatory agencies for their benefit. The use of herbicides is a "quick fix" for the Tahoe Keys problem. My family has been residence of Tahoe since 1970, the keys were a problem then and continue to be today. Don't let the CA State Regional Water Quality Control Board , or TRPA get pushed over … again.

Response to Comment HE-152: See Master Responses GEN-G1 and HER-G1.

Comment HE-153: There's scientific knowledge in Minnesota about aquatic weeds mutating and getting stronger when they are subjected to aquatic herbicides.

Response to Comment HE-153: See Master Response HER-G1

Comment HE-154: I am very much against the use of herbicides. It's inappropriate to put them anywhere near Lake Tahoe.

Response to Comment HE-154: See Master Responses ALT-G1 and HER-G1.

MITIGATION MEASURES/RESOURCE PROTECTION MEASURES

ALTERNATIVES

Comment ALTM-1: For mitigation listed for EH-6: Include the date range for spring surveys (as described in Section 3.2.2, page 3.2-17). The mitigation also states that the treatment areas would be as small as possible. Since the draft EIR/EIS includes pre-determined sizes for the test sites (Section 2), it would help to clarify what rational was used to determine "small size" to better understand the mitigation.

Response to Comment ALTM-1: Spring aquatic plant surveys would be conducted in May to provide information in advance of testing that would occur in late May or early June. The EH-6 mitigation description states that only a small portion of the overall Tahoe Keys area would be treated as part of the CMT. The total area of herbicide and UV light test sites where plant mortality and nutrient release are expected would be less than 17% of the Tahoe Keys area, and this limited extent of testing is expected to limit the potential for HABs resulting from the release of nutrients during plant decay.

AQUATIC EFFECTS

Comment AQUM-1: For mitigation listed for AQU-5: It is unclear how and why mitigation would result in Group A methods to not substantially change or reduce the diversity of the aquatic community.

Response to Comment AQUM-1: No resource protection measures or mitigation were recommended in the DEIR/DEIS as necessary to avoid or minimize impacts to BMI communities (Issue AQU-5). The Tahoe Keys lagoons are dominated by taxa that are tolerant to environmental disturbance, owing to the fine organic bottom sediments and low dissolved oxygen conditions, limiting habitat suitability to more intolerant and less diverse taxa. These conditions are not expected to worsen as the result of proposed activities, and mortality to some individual invertebrates at limited test sites is not expected to impact the overall BMI communities in the lagoons.

Comment AWMM-1: Before moving to the Tahoe rejoin, I owned and operated a business in western New York that dealt solely with the issue in the finger lakes region. I worked with the DEC and local residents to control this problem, which is significantly widespread. We were working specifically with weed mats. As I am sure you know, they are very effective and if managed properly. I believe this method are is the most ecologically friendly way of control.

Response to Comment AWMM-1: Bottom barriers have been tested around docks in the Tahoe Keys lagoons for several years, as part of the Integrated Management Plan under the TKPOA Waste Discharge Requirements. TKPOA reports on the performance of bottom barriers to the Water Board. The thick layer of unconsolidated organic material on the bottom of the lagoons has migrated to cover the mats and provide substrate for new aquatic weeds to grow on top of the mats. Under the CMT and Action Alternative 1, bottom barriers would be further tested as one of the spot treatment methods where Group A methods have been successful at knocking back the weed infestation.

Comment AWMM-2: Under Section 3.2.1, Mitigation and Resource Protection Measures, it is very difficult to determine which of these are mitigation measures and which are resource protection measures (and how these are, in turn, related to the impact issues listed in ES-1). Since mitigation measures are only required to reduce potentially significant impacts, it is important for the reader to understand which of these are preventative measures versus which ones are

mitigation measures intended to reduce or minimize impacts. For example, are the double turbidity curtain barriers a part of the Proposed Project design, a Resource Protection Measure, or Mitigation? For EH-5a, what kind of Best Management Practices (BMPs) would be implemented? Provide some examples so that it is clear what the applicant will do to minimize sediment disturbance.

Response to Comment AWMM-2: The DEIR/DEIS has been clarified to distinguish between resource protection measures and mitigation measures. These changes are reflected in the FEIR/FEIS. Resource protection measures are part of how activities in the CMT or alternatives were planned, including measures specified in the APAP. Examples of BMPs to reduce sediment disturbance were added to the description of mitigation measure EH-5a. See response to WQM-1.

Comment AWMM-3: Mitigation of Adversely Impacted Receiving Water Uses During Project: The DEIS describes measures to reduce plant fragments from leaving the lagoons and proposes that they would continue under the No Action alternative. The USEPA considers that these measures, including seabins, bubble curtains, and boat back-up stations, have the potential to protect beneficial uses of Tahoe Keys and Lake Tahoe and could be included in all the project alternatives, and in the long-term strategy following CMT completion. Recommendation: The USEPA recommends that measures to minimize aquatic weed dispersal, including bubble curtains, seabins, and boat back-up stations, be included in the CMT project. We recommend requiring use of the boat back-up stations during the project, and that their effectiveness be monitored and evaluated.

Response to Comment AWMM-3: As described in Section 1.1.3.2, TKPOA's Waste Discharge Requirements include an Integrated Management Plan (IMP) to address aquatic weed management. Ongoing measures to control plant fragments and the monitoring and reporting of these activities are required elements of the IMP that would continue regardless of implementation of the CMT or other alternatives.

Comment AWMM-4: Mitigation Should Be Revised to Include Additional Detail for Adaptive Management.

As the NPDES permittee and agency implementing the Project and its mitigation, TKPOA understands the importance of including definite standards in mitigation measures for the Project's potentially significant impacts. (See North Coast Rivers Alliance v. Marin Municipal Water Dist. (2013) 216 Cal.App.4th 614, 647.) Accordingly, TKPOA respectfully requests that additional detail be added to ensure that TKPOA, the agencies, and the public understand what specific measures will be undertaken to protect the Project environment under certain circumstances.

Some mitigation measures do not include monitoring to verify performance of the mitigation. As an example, Mitigation Measure EH-3g states that double turbidity curtain barriers would be installed to "ensure that herbicide residues or chemical transformation products do not migrate toward the West Channel connecting the West Lagoon to Lake Tahoe." However, the measure includes no monitoring to verify performance of the curtains and their effectiveness in mitigating the potential impact. In addition, Mitigation Measure EH-3b could be incorporated as part of the monitoring for EH-3g to provide a more coordinated monitoring and evaluation process of herbicide fate and mitigation.

Response to Comment AWMM-4: 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. 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.

Comment AWMM-5: Table ES-1, under the Mitigation column for EH-3g, states: Double turbidity curtain barriers would be installed outside West Lagoon areas where herbicides testing sites are located…" Turbidity curtains notoriously fail to completely prevent mixing 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. Also, turbidity curtains are kept in place by weights on their lower edges. These weights will change position and disturb sediments full of aluminum sulfate, a consequence of large quantities of alum having been added to the lagoons during construction to settle the sediments. Estimates of the quantities of alum and the aluminum sulfate content of the sediments are not discussed in this Draft. Aluminum is extremely toxic to aquatic organisms. Therefore, the turbidity curtain mitigation would create other impacts; these impacts are not acknowledged and their mitigation is not discussed.

Response to Comment AWMM-5: 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. Information on the potential for aluminum to exceed water quality criteria during activities that disturb bottom sediments is presented in Section 3.2 under Issue EH-5. Estimates of quantities of alum or bulk aluminum sulfate content were not attempted because elutriate tests were performed on sediment samples as a more direct method to estimate the potential to exceed water quality criteria and toxicity to aquatic life. The results of elutriate tests reinforced the importance of requiring real-time turbidity monitoring during any activities that may disturb the bottom sediments. If monitoring indicated that movement of weights anchoring turbidity curtains was causing turbidity to exceed permit limits, then deploying heavier weights or other improvements to the anchoring system may be required.

Comment AWMM-6: Table ES-1, under the Mitigation column for WQ-2, Sediment Disturbance and Turbidity, states: "Silt curtains would be used to confine water quality impacts within test sites during dredging and substrate replacement." Silt curtains are an erosion control best management practice (BMP), not a dredging BMP. The authors probably meant turbidity curtains; this mistake and others suggest that the authors are not well informed. And again, (a) the very act of placing and removing the turbidity curtains creates sediment disturbance and turbidity, and (b) inflows from stormwater outlets behind the curtains will likely overwhelm the curtains; these two impacts are not discussed.

Response to Comment AWMM-6: Silt fences are used in terrestrial control of soil erosion. Silt curtain (i.e., turbidity curtains) has traditionally been defined as an impermeable device for control of suspended solids and turbidity in the water column generated by dredging and dredged material disposal operations (Francingues and Palermo 2005). Recently, the term silt curtain has been used to describe floating vertical barriers fabricated from either solid or

permeable materials. Silt curtains are most effective in relatively shallow quiescent waters, and the Tahoe Keys lagoons locations would not be subject to strong currents or tidal fluctuations that might otherwise cause the curtains and anchors to move and disturb bottom sediments. See also Master Response EH-G1.

Comment AWMM-7: Table ES-1, under the Mitigation column for WQ-3, Dispersal of Aquatic Weed Fragments (during herbicide, UV, LFA, and suction dredging), states: "Performance specifications for sand or gravel used for substrate replacement would require that the material not contain excessive amounts of organic matter that could increase amounts of floating materials." This mitigation strategy is not even relevant to the aquatic weeds fragment dispersal impact cited under Impact Issues in Issue WQ-3. This is additional evidence that the document was not thoroughly reviewed before publication.

Response to Comment AWMM-7: The introduction to and title for Table ES-1 has been changed to clarify that the first column identifies potential environmental impact issues that were evaluated in Chapter 3 of the DEIR/DEIS, not impact findings. As described in Section 3.3.4, several potential water quality issues were identified in antidegradation policies, Basin Plan water quality objectives, and TRPA threshold standards for water quality, including issue WQ-3 Dispersal of Aquatic Weed Fragments that was evaluated for suction dredging. Issue WQ-3 ties to compliance with the water quality objective for floating debris. Under Action Alternative 2, the potential for floating debris includes not only aquatic weed fragments but also other organic matter in replacement substrate applied in dredged areas.

Comment AWMM-8: Table ES-1, under the Mitigation column for UT-1, Effects on Water Supply, states: "TKPOA has proposed contingency plans, including monitoring and alert systems to be implemented if necessary to remove herbicides and other chemicals to treat the potable water before distribution." (emphasis added) Who will determine whether implementation is necessary? Determination by TKPOA, which strongly favors the use of herbicides, would not inspire public confidence and would not guarantee timely and reliable mitigation.

Response to Comment AWMM-8: Due to dilution, no detectable concentration of herbicides or degradants attributable to the test program would occur at drinking water intakes, and therefore no impact would occur and no mitigation is required. Contingency plans have been proposed and are required by the Water Board in the abundance of caution. See Master Response WS-G1 for further discussion on why no significant impacts to water supply are expected from the project.

Comment AWMM-9: The discussion of mitigation by turbidity curtains on page 3.3.4-56 states: "Turbidity curtains that adhere to TRPA standards outlined in the BMP Handbook §8.10 are expected to confine this temporary impact to test areas such that turbidity impacts to the West Lagoon would be less than significant." Turbidity curtains are not a panacea, as even double layers of turbidity curtains can be overwhelmed and fail during high winds or during rain events that produce high stormwater inflows. Also, once the turbidity has decreased enough to remove the turbidity curtains, the removal itself creates turbidity that often exceeds the Nephelometric Turbidity Units (NTU) water quality objective. Therefore, turbidity curtains alone do not mitigate the impacts of turbidity to less than significant.

Response to Comment AWMM-9: BMPs for turbidity curtains include design and installation considerations, and inspection and maintenance practices to maximize their effectiveness. If real-time monitoring indicated that the turbidity curtains were not performing effectively, work would be suspended until turbidity abates. Maintenance of the turbidity curtains or adjustments

to the methods or pace of work may be necessary to meet turbidity limits when resuming work. Real-time turbidity monitoring would also be required during turbidity curtain removal, and exceedances of permit limits could require changes in the methods or pace of removal work. These procedures have been used to manage turbidity during other dredging projects in Lake Tahoe.

CYANOBACTERIA

Comment CYNM-1: Table ES-1, under the Mitigation column for EH-6b, Harmful Algal Blooms (HABs), states: "Aeration technologies such as LFA would be implemented at each herbicide test site immediately after target aquatic weeds die back from the herbicide application. 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." This 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 use of non-chemical methods would reduce this risk because non-chemical methods cause less rapid dieback.

Response to Comment CYNM-1: Table ES-1 in the DEIR/DEIS was modified to indicate that aeration will be used if monitoring indicates low dissolved oxygen concentrations. Mitigation EH-6a related to the timing of the application of herbicides in the spring when plant growth is still in the early stages of growth will also decrease the potential for nutrient release. Also see responses CYB-3 and CYB-12.

EARTH RESOURCES

Comment ERM-1: Under 3.3.1 Earth Resources Mitigation and Resource Protection Measures, similar to the comment above, it is very unclear which of these items are intended to be mitigation that reduces potentially significant impacts discussed for Action Alternative 2. Is the replacement of docks or bulkheads mitigation that is tied to performance criteria? How would there be assurances that this would be implemented. Similarly, the following language is unclear and does not appear to be fully enforceable or provide potential impacts that would ensure that performance standards would be achieved, "Mitigation and resource protection measures would address any the potential effects of spills in the dredge handling area at the WTP would by installing containment barriers and impermeable layers. The effects of spill in transport would be remediated by clean-up operation."

Response to Comment ERM-1: Replacement of docks or bulkheads would be a required mitigation where they are removed or destabilized. The docks are generally supported on small-diameter pipe posts (i.e., 4-inch diameter steel pipe) that can be extracted and replaced, or left in place during construction, at the contractor's option. Several of the docks have larger-diameter piles that are not extractable but should have sufficient lateral and vertical capacity that they are not expected to be affected by 2 to 3 feet of excavation. Piles would need to be replaced if they were removed but would otherwise not be expected to require replacement unless they have excess corrosion or rot that prevents their re-use. There are no significant bulkhead walls in area 28, and the few walls at that site are not of a height that should be affected by bottom dredging. Ninety percent of the perimeter of area 30 are sheetpile bulkhead walls that are in good condition and dredging of 1 to 2 feet of loose material is not expected to result in failure of the walls. In area 29, 200 feet of bulkhead wall have been recently replaced and is in good condition (not expected to fail) but there is another 200 feet that is currently leaning and failing due to corrosion of the metal sheets and loss of support due to disconnected wire rope tiebacks.

Performance criteria for bulkhead stability would require collaboration with property owners. Typically, bulkheads which change their lean less than 2 degrees or displacement of less than 1/2 inch would be considered unaffected by the dredging operation. Contractual language would be inserted in the project documents to ensure that repairs are performed. Project contract documents would require the dredge operator to provide mitigation and resource protection measures.

The dredge material would have substantially the same composition as sediments along the pipeline routes. Turbidity curtains or containment booms would be in place to contain spill or leak sediments. If spills or leaks occur, the material deposited would be dredged to at least the pre-spill mud line to remove the excess materials. Turbid water due to a spill could be run through the dredge spoils treatment and handling system. Performance specifications in Section 3.3.7 refer to contract document s requiring that the contractor to meet performance criteria rather than specifying means and methods for pipeline control and spill prevention.

Comment ERM-2: Table ES-1, under the Mitigation column for EH-2, states: "A spill prevention and response plan would be implemented by a Qualified Applicator License (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 site." A spill prevention and response plan does not mitigate the presence of aquatic herbicides which violates the Toxicity and Chemical Constituent water quality objectives. Such a plan should have been provided as part of this Draft EIR/EIS. If "Measures to Prevent Spills and Spill Containment in Event of Spill" in the TKPOA application, Appendix C, is the final Spill Prevention and Response Plan (SPRP), it is wholly inadequate. If it is not, then a final SPRP should have been included in this Draft EIR/EIS and must be included in a revised Draft EIR/EIS. As stated in General Comment above, the discussion of the impacts in the Draft EIR/EIS is inadequate to serve as the informational document required by CEQA. See Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 515-522. The information provided is inadequate with respect to assessing the public health and safety impacts of herbicide use.

Response to Comment ERM-2: See Master Response WQO-G1 on why the project is not expected to violate the toxicity and chemical constituents water quality objectives from the presence of herbicides. Toxicity, including potential effects of herbicide chemicals and aluminum in sediments, is addressed in Section 3.2, Environmental Health. Because exposure could occur due to spills or in the course of application of the herbicides, a spill prevention and response plan (SPRP) would be a condition required by project permits and would be required to be approved before project implementation. Spill prevention and containment BMP's were provided by the TKPOA in the APAP submitted to LWB (p. 42) and the NPDES permit requires TKPOA to submit a BMP implementation plan that at a minimum must include plans to prevent aquatic herbicide spill and for spill containment in the event of a spill. See also responses and REG-23 regarding the adequacy of the DEIR/DEIS.

Comment ERM-3: Table ES-1, under the Mitigation column for EH-5a, short-term Increases in Aluminum Concentrations, states: "Best management practices 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. BMPs also would be used to prevent accidental releases of sediment to the lagoons during dredge spoils transport and handling." The BMPs discussed later in the document are inadequate; the turbidity curtains do not mitigate the impacts because, as previously stated, the curtains themselves cause sediment disturbances sufficient to mobilize aluminum into the water column.

Response to Comment ERM-3: See response to AWMM-6.

Comment ERM-4: Table ES-1, under the Mitigation column for EH-5c, states: "Containment plans would assure adequate storage and safe handling of dredge spoils during processing. The plans would minimize the risk of dredged sediment containing aluminum from being released outside of approved discharge locations." The containment plans cited later in the Draft EIR/EIS are inadequate as they lack specificity and analysis; e.g., the containment structure, the old treatment plant, to be used is decades old and no analysis of its structural integrity has been performed.

Response to Comment ERM-4: See responses ALT-95, ALT-105d, ALT-105g, ALT-111, and ERM-1.

Comment ERM-5: Table ES-1, under the Mitigation column for ER, states: "Any bulkheads or docks removed or destabilized by dredging would be fully mitigated by replacing them in kind, and any slopes that are destabilized would be mitigated by slope re- stabilization after the dredging test is completed." Would taxpayers pay for the rebuilding of these private docks and the re-stabilization of slopes? The estimated costs of these treatments and the anticipated sources of funding must be disclosed.

Response to Comment ERM-5: See responses ERM-1 andALT-95 and Master Response ALT-G1 and CST-G1.

Comment ERM-6: Table ES-1, under the Mitigation column for WQ-2, states: "Spill control and containment plans would be used to control accidental spills of dredge spoils and would include provisions for adequate storage for safe handling of dredge spoils during processing. No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced turbidity sufficiently to meet standards, as required by contract performance specifications. Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac." (emphasis added) The type of flocculant that would be used and its risks are not disclosed. The sanitary sewer system is designed to treat sewage, not to receive millions of gallons of sediment-laden water. No sanitary sewer system in the Lake Tahoe Basin has accepted suction dredging disposal wastes in the last 15 years; therefore, this is not a viable mitigation strategy. Whether Lake Tallac has sufficient capacity to receive the treated water, considering that it also receives stormwater from the surrounding City of South Lake Tahoe, is not discussed and must be discussed in order to understand the feasibility of this alternative and its full environmental impacts.

Response to Comment ERM-6: The STPUD will determine whether or not to accept the effluent. Under Action Alternative 2 (suction dredging), disposal of dewatering effluent to the STPUD sanitary sewer system would require approval by the STPUD Board of Directors. Thresholds for treatment system acceptance are decided by the Board on a case-by-case basis. Whether or not a precedent exists in the past 15 years does not preclude their consideration of this mitigation option.

Further design development would be required to permit Action Alternative 2, including treatment to remove aluminum from dredge spoils dewatering effluent. See response ALT-105f.

The capacity of Lake Tallac to receive treated water is discussed in Section 3.3.3. Suction dredging would be performed during the summer after the snowmelt runoff season and when rainfall is minimal. In the event of an unusual storm resulting in substantive stormwater inflows

to Lake Tallac, suction dredging could be suspended to preserve capacity in the on-site treatment system until storm flows passed and water levels receded in Lake Tallac.

Comment ERM-7: Under Mitigation and Resource Protection Measures on page 3.3.1-7, expenditure of public funds spent on replacement of private boat docks that may be destabilized by Alternative 2 dredging would be extremely inappropriate.

Response to Comment ERM-7: Mitigation and Resource Protection Measures on page 3.3.1-7 do not indicate whether private or public funds would be expended in this alternative. See Master Response CST-G1 for further explanation on costs and alternatives.

Comment ERM-8: The bottom of page 3.3.1-7 states "Mitigation and resource protection measures would address any the potential effects of spills in the dredge handling area at the WTP would by installing containment barriers and impermeable layers." This sentence is very poorly worded. The volumes of possible releases of water and the corresponding height of containment barriers required to contain them have not been estimated. This omission must be remedied in a revised Draft EIR/EIS.

Response to Comment ERM-8: Thank you for drawing our attention to this editorial concern. The FEIR/FEIS will correct all identified editorial errors and improvements. From the DEIR/DEIS Section 2.5.1, p. 2-31: The existing WTP plant has a low berm around it, which may contain leakage, and probably could be increased to a height of three to four feet or reinforced with a liner to prevent outflow of any dewatering leaks. Treatment equipment would be installed with local liner systems to contain potential leaks or water splashed around each tank. Also see Master Response PP-G1. See responses ALT-95, ALT-105d, ALT-105g, ALT-111, and ALT-112

HERBICIDES

Comment HERM-1: For mitigation listed for EH-2, EH-3d: It would be helpful if a description of what is considered a detectable concentration of an herbicide be added in these sections. How would this be measurable in the mitigation.

Response to Comment HERM-1: Research of contract laboratory capabilities indicate that 0.001 ppm is the lowest reliably obtainable detection limit for reporting concentrations of the proposed herbicide active ingredients and their degradants in water, and 0.010 ppm is the lowest reliable reporting limit for these chemicals in sediment.

Comment HERM-2: Table ES-1, under the Mitigation column for EH-3d, states: "the LWB would be notified within 24 hours" if herbicide residue is detected within 500 feet of the West Channel. Notification is not mitigation. What do the authors of this Draft expect the Lahontan Water Board could or would do to mitigate this impact? This section also states that "contingency plans would include shutting off wells and distributing bottled drinking water until residues are no longer detected in the samples." As noted in comment #4, this is an inadequate mitigation measure and does not satisfactorily reduce the significant impact to less than significant.

Response to Comment HERM-2: Impacts to drinking water supplies are expected to be less than significant, therefore mitigation would not be required. See Master Response WS-G1. See also response HE-127c. Concentrations approaching levels of potential concern would not be expected near the West Channel; however, herbicide detections there would trigger contingency monitoring as specified in the APAP and NPDES permit conditions. Resource protection measures summarized in Table ES-1 for protection of drinking water supplies are further described in Section 3.2, including resource protection measure EH-3d. The APAP, MMRP, and

NPDES permitting require that well-monitoring plan is in place, in the event that herbicides are detected The well monitoring plan shall include measures for treatment of well water, and provisions for alternate water supplies.

HYDROLOGY

Comment HYDM-1: Under 3.3.3 Hydrology, Mitigation and Resource Protection Measures, the "mitigation" discussed is unclear and possibly unenforceable. The supposed mitigation language discusses limiting routing of treated dewatering effluent to Lake Tallac to only the late summer/early fall months. However, the mitigation measure needs to be more specific. What months would this entail? How would this measure quantitatively reduce impacts to below thresholds?

Response to Comment HYDM-1: For alternative 2, this section presents information on potential increases in Lake Tallac and Pope Marsh water levels resulting from treated dewatering discharge during low water years or high water years. Mitigation measures for this alternative would prevent any increased risk of flooding. Water levels would be monitored during the project and effluent discharge would only be allowed when it would not contribute to potential flooding risks. Because water levels recede from seasonal snowmelt runoff by the end of June during most years, discharge would likely be allowable by the beginning of July. If unusual high water conditions were present, dredging operations could be suspended to ensure that adequate storage was maintained for treated effluent. CEQA requires that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d]). The discussion of the impact and mitigation associated with this alternative meets the level of detail required.

MITIGATION

Comment MI-2: We lived in SpringPark, a community in Garland, Texas, that has a pond system, not unlike a smaller version of Tahoe Keys. The pond was inundated with weeds and they elected to bring in a large water trailer, full of fish, which they dumped into the lake. It took months but the fish ate the weeds.

Response to Comment MI-2: Thank you for your suggestion regarding potential mitigation.

Comment MI-9: Some mitigation measures identify which action alternatives they apply to and some do not. We recommend that each measure indicate which action alternative(s) it would apply to.

Response to Comment MI-9: Table ES-1 does show which mitigation measures and resource protection measures apply to each alternative. The FEIR/FEIS Table ES-1 was revised to clarify which measures are mitigation measures and which are resource protection measures. Please see FEIR/FEIS Table ES-1.

Comment MI-12: Throughout Table ES-1, many mitigation measures are missing mitigation numbers/labels; this makes it difficult to track impacts and mitigation throughout the document. The lack of labels also makes it difficult to determine which measures are mitigation and which are design features or "resource protection measures.

Response to Comment MI-12: The DEIR/DEIS Table ES-1 was revised to clarify which measures are mitigation measures and which are resource protection measures. Please see FEIR/FEIS Table ES-1.

Comment MI-14: As discussed in CEQA Guidelines 15126.4 (a) (1) (A) "The discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures proposed by the lead, responsible, or trustee agency or other persons which are not included but the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. This discussion shall identify mitigation measures for each significant environmental effect identified in the EIR. In addition, under 15126.4 (a) (3), "Mitigation measures are not required for effects which are not found to be significant." Without the clarification of whether these listed measures are Mitigation, part of the Proposed Project, or are Resource Protection Measures, it is unclear if these discussions are in compliance with these sections of the CEQA Guidelines.

Response to Comment MI-14: The DEIR/DEIS Table ES-1 was revised to clarify which measures are mitigation measures and which are resource protection measures. Please see FEIR/FEIS Table ES-1.

Comment MI-17: Under Section 3.3.4 Proposed Project Mitigation and Resource Protection Measures, it is unclear which of these are mitigation versus protection measures. For example, on page 3.3.4-57, in the second paragraph – some sections of the document indicate less than significant with mitigation but do not state what mitigation needs to be implemented. Edits should be made to make clear what significant impacts the mitigation measures are reducing versus which measures are project features, and which mitigation is required for which activities.

Response to Comment MI-17: The DEIR/DEIS Table ES-1 was revised to clarify which measures are mitigation measures and which are resource protection measures. Please see FEIR/FEIS Table ES-1.

Comment MI-18: Under Section 3.3.4 Alternative 2 Mitigation and Resource Protection Measures, for Issue WQ-2, all the items discussed should be individual mitigation measures (or resource protection measures) so that it can be tracked in the MMRP for who is responsible for enforcing compliance with each measure and what the performance criteria would be, where appropriate.

Response to Comment MI-18: The DEIR/DEIS Table ES-1 was revised to clarify which measures are mitigation measures and which are resource protection measures. Please see FEIR/FEIS Table ES-1.

Comment MI-23: The summary of effects should point to labeled mitigation measures (similar to what was included in Section 3.3.6) for easier reference throughout the document. As written, it is unclear which are mitigation measures to reduce significant impacts and which are project measures already in place to avoid impacts. The identification of mitigation measures would also make the discussion clearer in terms of which issue areas would have less than significant impacts, and which would be less than significant with mitigation incorporated.

Response to Comment MI-23: The DEIR/DEIS Table ES-1 was revised to clarify which measures are mitigation measures and which are resource protection measures. Please see FEIR/FEIS Table ES--1.

Comment MI-25: The impact and mitigation from the proposed use of herbicides described in the Draft EIR/EIS is inadequate and insufficient.

Response to Comment MI-25: See Master Response HER-G1.

Comment MI-26: I grew up in Tahoe. Watched this development go in and since have seen satellite pictures of south shore. All you have to do is look at the satellite pics and the debris and dirt plumes coming out of the keys and there can be no doubt that this was a colossally bad decision for the lake as a whole. Now our only option is mitigation.

Response to Comment MI-26: Thank you for your comment regarding the environmental setting.

Comment MI-47: Sierra Club requests a solid barrier to protect the Lake. Tests of a barrier should include materials, wave flows, flooding and pumping to Tallac.

Response to Comment MI-47: Please see response ALT-17.

RECREATION

Comment RECM-1: Under Section 3.4.6 Recreation, Action Alternative 2, Resource Protection Measures, this section identifies what measures would be implemented but should clearly state if this is a mitigation. This reference is not provided in the language above or on the ES table. The section should clearly state how the mitigation would address the impacts under Alternative 2.

Response to Comment RECM-1: See responses MI-9, MI-12 and MI-14.

REGULATORY

Comment REGM-1: The discussion of Monitoring and Reporting Programs on page 2-18 states that an Aquatic Pesticide Application Plan (APAP) will be implemented to "prevent accidental spills, contain herbicides within the treatment area, monitor concentrations and movement of the aquatic herbicide chemicals and degradates after application, and alert the public and water purveyors should aquatic herbicides move beyond the treatment areas into areas of the lagoons or Lake Tahoe beyond planned containment." The risk of accidental spills remains too high even with the best plan to prevent them. An APAP will only minimize the risk of a spill, not prevent the occurrence of spills. Therefore, this mitigation measure does not mitigate the risk to less than significant, though the risk is asserted be less than significant later in the document.

Response to Comment REGM-1: Requirements for herbicide applicator qualifications and approval and implementation of a spill response plan are among the mitigation measures described on pages 3.2-15 and -16. The spill response plan would be developed by a QAL holder to minimize and contain any spills during herbicide mixing and application. Approval and implementation of a spill response plan would also be a condition of project permits. These plans typically include requirements for limiting the locations where herbicide mixing can occur, proper storage, and secondary containment capacity for any potential leaks. The LWB permits several marinas in Lake Tahoe. Permit conditions requiring spill prevention, and response plans have been effective at limiting impacts from fuel spills to less than significant levels.

TERRESTRIAL

Comment TERM-1: Under section 3.3.6 Terrestrial Biology and Ecology, Proposed Project

Mitigation and Resource Protection Measures, the description of MM-BMAA-1 is how each mitigation measure should be indicated throughout the EIS/EIR. This measure describes the mitigation, how it will reduce impacts, what will be required of which entity, and specific actions required to be taken. In addition, the labeling of the mitigation measure is helpful and can be a way to refer to which mitigation measure(s) will reduce impacts in the impacts discussions; this labeling should be used universally for each mitigation measure.

Response to Comment TERM-1: Thank you; your feedback on these mitigation measures will be considered as the FEIR/FEIS is prepared.

TRANSPORTATION

Comment TRNM-1: For mitigation listed for ER-1: Provide the specific restrictions (such as speed limits and what are defined as travel restrictions).

Response to Comment TRNM-1: The route proposed to be used for truck travel under Action Alternative 2 is depicted in Figure 2-12 of the DEIR/DEIS. Routes that would be used to transport dredged fill to off-site landfills are also described on pages 2-35 and 3.4-16. Under Action Alternative 2, trucks traveling along these described routes would be required to comply with posted speed limits, which from 25 to 30 miles an hour streets within residential neighborhoods, and 35 to 40 miles per hour on State highways, as described on DEIR/DEIS pages 3.4-20 and 3.4-24.

In addition to compliance with posted speed limits, Mitigation Measure TR-3a authorizes the Public Works, Roads Division of the City of South Lake Tahoe to impose a requirement for the permittee to prepare and implement a traffic control plan and program to minimize damage to road surfaces as a result of the alternative action 2. If required by the City, the plan and program must include various provisions to maintain the road surface, which include but are not limited to a limitation on truck operations to those hours outside of morning and peak hours of travel, and no less than one hour before and after the start of each school day. Should a spill occur, these restrictions on times of truck operation would reduce impacts experienced by drivers to those hours when affected roadways are less busy.

Comment TRNM-2: Under Section 3.4.3, the Traffic discussion includes a mention of "speed limits and travel restrictions" similar to what is listed as mitigation language in ES-1 for Earth Resources. However, these should be clearly outlined here as well if it is being included as a mitigation or resource protection measure. For example, what will the speed limits be? Or what would the travel restrictions include?

Response to Comment TRNM-2: See response TRNM-1.

Comment TRNM-3: Under Section 4.4.4 Traffic and Transportation, Alternative 2, this section calls out that with mitigation implemented, Alternative 2 is not anticipated to have significant traffic impacts. What mitigation is this referring to and how would the mitigation address the cumulative traffic effects?

Response to Comment TRNM-3: Mitigation Measure TR-3a on DEIR/DEIS page 3.4-26 is intended to reduce to less than significant the potential individual effects on the condition of local roads as a result of truck trips associated with Action Alternative 2, by requiring the permittee to restore road surfaces to pre-project conditions at the discretion of the City. Other potential transportation issues, including generation of vehicle trips, parking demands and water traffic, were found to be less than significant, both individually and cumulatively, for Action Alternative 2 (DEIR/DEIS pages 3.4-24 through 3.4.26 and page 4.1.22).

Because truck and vehicle trips that would occur under Action Alternative 2 would be fewer than 100 trips per day and would be temporary, and the permittee could be obligated to repair any road damage that might result from dredge and substrate replacement activities, Action Alternative 2 was not anticipated to have potentially significant individually or cumulatively impacts on roads (DEIR/DEIS page 4.1-24). Potential current and future projects related to traffic and described on DEIR/DEIS pages 4.1-22 and 4.1-23 would not happen concurrently with implementation of Action Alternative 2 and would not compound the individual, less than significant traffic impacts of the project so as to result in a significant cumulative impact.

UTILITIES

Comment UTM-1: Effects on Water Supply states "Due to dilution no detectable concentration of herbicides or degradants attributable to the test program would occur at drinking water intakes, and therefore no impact would occur and no mitigation is required. TKPOA has proposed contingency plans, including monitoring and alert systems to be implemented, if necessary, to remove herbicides and other chemicals to treat the potable water before distribution." Response: Given the time it would take to mobilize and install additional treatment (as described on page 3.2-16, Section EH-3f Carbon filtration contingency) to remove synthetic organic herbicides before drinking water is served, the treatment technology should be onsite and installed ready to operate, if needed

Response to Comment UTM-1: See Master Response WS-G1.

Comment UTM-2: Table ES-1, under the Mitigation column for EH-3b, Protection of Drinking Water Supplies, states: "contingency plans include shutting off the wells and distributing water to all users until residues are no longer detected in the samples." This is a completely unacceptable mitigation measure and certainly is not mitigation that would reduce this significant impact to less than significant. All mitigation must be feasible and fully enforceable, and all feasible mitigation must be imposed by lead agencies. (CEQA Guidelines, § 15041.) This mitigation measure is infeasible and unenforceable because of the sheer numbers of people that could be affected. Also, this does not address the affects on the 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) In addition, the impact to drinking water supplies would be a violation of the chemical constituents water quality objective and, therefore, herbicides must not be allowed.

Response to Comment UTM-2: See Master Response WS-G1.

WATER QUALITY

Comment WQM-1: For Mitigation Measure EH-5a, we recommend that the measure be revised to provide examples of BMPs that would be used to minimize sediment disturbance and turbidity. As written, it is unclear how this measure would reduce impacts.

Response to Comment WQM-1: BMPs would be included in permit conditions for any CMT or Action Alternative approved by the TRPA and LWB. 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. Rather than prescribing BMPs in advance, turbidity limits would be performance standards in implementation contracts and the contractors would have leeway in determining how they could best meet performance standards. In the case of deploying LFA systems or bottom barriers, BMPs could entail changing the

equipment or methods used for placement. During removal of bottom barriers or during diver assisted suction/hand pulling or spot suction dredging, BMPs could entail divers working more slowly and carefully to minimize sediment disturbance. As described on page 3.3.4-54 of the DEIR/DEIS, the TRPA BMP Handbook provides BMPs for hydraulic dredging and the use of turbidity curtains. BMPs for hydraulic dredging include managing cutter-head rotation and swing speed and limiting sediment removal in maximum lifts equal to 80% or less of the cutter-head diameter. BMPs for turbidity curtains include design and installation considerations, and inspection and maintenance practices.

Comment WQM-2: For Mitigation Measure EH-5b, what would be the response if during testing aluminum levels do not comply with water quality criteria?

Response to Comment WQM-2: Further treatment and batch testing of treated effluent would be required to demonstrate compliance with permit limits before the effluent could be discharged to Lake Tallac. See also Master Response EH-G1.

Comment WQM-3: WQ-5a states: "Herbicide applications would occur in the late spring when target weed species are in their early stages of growth and plant biomass in minimal and the timing would be adjusted based on pre-application macrophyte survey." Response: given that the lagoons have exceeded water quality objectives for several constituents, this mitigation seems vague in terms of "minimal" biomass and potential impacts on water quality

Response to Comment WQM-3: As the growing season progresses the biomass of plants increases. The later in the season that plants are killed, the more biomass of plant tissues will decay and create oxygen demand. By treating the weeds in the late spring shortly after emergence, the biomass of decaying plants and consequent oxygen demand would be minimized. Minimizing oxygen demand in this way was not considered adequate to prevent potentially significant impacts to dissolved oxygen conditions. Additional mitigation (i.e., aeration) would be required to prevent the aquatic weed control testing from worsening already poor water quality conditions for dissolved oxygen, if real-time monitoring indicates that DO would not meet permit limits.

Comment WQM-4: Table ES-1, under the Mitigation column for EH-3c, states: "Sampling would be conducted at all three TKPOA well water intakes." Who would do this sampling, TKPOA? The monitoring and sampling must be administered by an independent contractor and those details should have been disclosed in the Draft EIR/EIS.

Response to Comment WQM-4: Monitoring required by the NPDES permit and MMRP would be the responsibility of the permittee, who may use contractors at their discretion. Data collection and analysis must follow quality assurance procedures.

Comment WQM-5: Table ES-1, under the Mitigation column for WQ-6, Increases in Total Phosphorus Concentrations, states: "The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce TP release from macrophytes at test sites. …This timing is expected to minimize the biomass of decaying vegetation, mitigating the effects of nutrient release that could occur from dieback of mature plants." The total phosphorus (TP) in the water column may be reduced in the fall because the biomass that had taken up phosphorus in the sediment would be smaller and therefore the release of TP into the water column during fall die-off would be smaller. However, the Proposed Project does nothing to reduce the total TP in the sediment and water column and does nothing to reduce the accumulation of TP in the system during the last 60 years. In fact, the 60 years of accumulation of nutrient inputs from

stormwater and groundwater is not addressed anywhere in the Draft EIR/EIS. LFA has achieved promising reductions in the amount of nutrients in the sediment and must be fully tested in an enhanced Alternative 1. Alternatively, recreating marsh would bury the entire unnatural system, and the marsh would then take up the nutrient inputs to the system from stormwater. Recreating marsh would be a cheaper and more environmentally advantageous alternative.

Response to Comment WQM-5: See page 3.3.4-2 for a description of Issue WQ-6. This issue ties to the Basin Plan water quality objective for total phosphorus in lagoon waters stated in Table 3.3.4-1. As noted in the comment, mitigation measures for this issue are focused on limiting the impact of project activities on the water column phosphorus, which is particularly important for reducing the risk of increased HABs occurrence. The CMT would not add phosphorus to the lagoons and is not designed to remove TP from the sediment. LFA is proposed for testing as part of the CMT to see if it is effective at limiting aquatic weed growth at test sites in the West Lagoon and Lake Tallac. The Permitee would be required to monitor and implement mitigation for TP and HABs as required by the NPDES Permit and MMRP. See also Master Response RES-G1.

Comment WQM-6: Table ES-1, under the Mitigation column for WQ-7, Increases in Lagoon Water Total Nitrogen Concentrations, states: "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." Early season herbicide treatment doesn't mitigate the amount of total nitrogen (TN) in the lagoon system. The TN in the unnatural ecosystem (water column and sediments) is taken up by the plants from sediments, so the only thing that targeting the immature plants does is produce less dead biomass. If that dead biomass is not removed, the TN stays the same. Removing mature plants from the system entirely could reduce the TN in the system or using the non-chemical LFA approach has shown promise to reduce nutrients, but herbicides will do nothing to reduce nutrients in the system.

Response to Comment WQM-6: See page 3.3.4-3 for a description of Issue WQ-7. This issue ties to the Basin Plan water quality objective for total nitrogen in lagoon waters stated in Table 3.3.4-1. The document was edited to clarify that total nitrogen refers to the TN concentrations in the water column and not the total of all nitrogen in the lagoons where it may be found in water, sediment, and plant and animal tissues. As noted in the comment, mitigation measures for this issue are focused on limiting the impact of project activities on the water column nitrogen, which is important for reducing the risk of increased HABs occurrence. The CMT is not designed to remove nitrogen from the sediment. LFA is proposed for testing as part of the CMT to see if it is effective at limiting aquatic weed growth at test sites in the West Lagoon and Lake Tallac. The Permitee would be required to monitor and implement mitigation for TN and HABs as required by the NPDES Permit and MMRP.

PUBLIC REVIEW PROCESS

Comment PP-1: Changing the title of the project to CMT gives cause for extension of the comment period.

Response to Comment PP-1: Thank you for your comments; the lead agencies have determined that an extension of the comment period is not necessary.

Comment PP-2: While the Tahoe Area Sierra Club continues to review the Tahoe Keys Lagoons Aquatic Weed Control Methods Test Draft Environmental Impact Report/Environmental Impact Statement (DEIR/DEIS), we are writing to urge the Lahontan Regional Water Quality Control Board (Lahontan) and the Tahoe Regional Planning Agency (TRPA) (Lead Agencies) to delay the comment deadline of September 3, 2020, due to the lack of antidegradation analysis in the DEIR/DEIS. The antidegradation analysis is a critical element of the Proposed Project to use aquatic herbicides in Lake Tahoe for the first time. During the scoping phase of this project, stakeholders were assured that it would be part of the DEIR/DEIS.

Lake Tahoe and the Tahoe Keys lagoons are designated as Tier 3 Waters, or "Outstanding National Resource Waters" (ONRW) meaning its high water quality must be protected and maintained according to State and Federal anti-degradation regulations. In fact, the DEIR/DEIS states that Project effectiveness will be evaluated based on performance criteria as specified, in part, on antidegradation requirements (pg. 1-9). The importance of the antidegradation analysis cannot be understated and, as such, it is discussed in the DEIR/DEIS sixty times. Therefore, without the antidegradation analysis to review, the DEIR/DEIS is incomplete.

Due to the absence of the analysis in the DEIR/DEIS, we request that the deadline for the DEIR/DEIS comments be delayed to 60 days from the date of the release of the antidegradation analysis, which we have been told would be "later this summer."

Response to Comment PP-2: Thank you for your comments; the lead agencies have determined that an extension of the comment period is not necessary. See Master Response AA-G1.

Comment PP-3: For future presentations, I respectfully request that you spend less time on data collection and more time on the comparison of the Proposed Project and the two primary alternatives. That's what the decision is all about.

Response to Comment PP-3: Thank you for this advice and input. We will take this guidance into consideration for future presentations as this process concludes.

Comment PP-4: [The] public process during the Covid pandemic doesn't adequately satisfy the needs of all citizens of who would like to comment. Some citizens don't have computers needed for virtual participation. The process is too highly controlled and doesn't allow any of the spontaneity for public meetings. Now, one has to not only prepare and submit their comments the day before the meeting, you have to preregister for the meeting ahead of time. There's also no option to reply to comments during the meeting. The technology doesn't always work for everyone who tries to participate. For instance, raising one's hand doesn't always guarantee an opportunity to speak. The opportunities for public participation do not adequately satisfy the California Environmental Quality Act and the National Environmental Policy Act requirements.

Public process doesn't meet needs during covid, a meeting is needed to allow everyone to speak and interact and doesn't meet CEQA requirements

Response to Comment PP-4: We appreciate the constraints imposed by the requirements of covid distancing and virtual meetings. At this time, because the lead agency's priority has been to

protect public health and safety, in-person public meetings could not be held. This approach is in line with the Governor's directive (below). In addition to an extended 60-day public comment period, best efforts were made to provide multiple opportunities for stakeholders to learn about the project and provide feedback, including: (1) virtual meetings, (2) email and written comment submissions, (3) communication via the project website, (4) offers for one-on-one and small group calls or meetings to discuss the draft environmental document, and (5) public hearings held by the boards of the lead agencies. This diversity of communication methods, including targeted stakeholder contacts and communication, is a normal element of public process practice, in response to issues and concerns raised by stakeholders themselves during the process.

On March 12, 2020, Governor Newsom issued Executive Order N-25-20 (see link below) in response to the COVID-19 pandemic. The Executive Order authorized a wide variety of actions to protect the health and safety of California residents. One such action allowed state bodies covered by the Bagley-Keene Open Meeting Act (Act) to hold public meetings covered by the Act via web conferencing or audio conferencing.

https://covid-19hub.govops.ca.gov/meeting-guidance/

Comment PP-5: Tahoe Water Suppliers Association said they were a member of the stakeholder working group and have been involved for many years on the development of the project plan being presented. They've come a long ways over the past few years and recognized everyone's collaborative spirit. They've shared ideas, concepts, and possible solutions and are moving forward from a much larger project with the potential use of herbicides that was presented a few years ago.

Response to Comment PP-5: Thank you for your valued participation and guidance.

Comment PP-6: The Tahoe Area Group of the Sierra Club is hopeful this comment letter is received timely as the public participation process for participation in the GoToWebinar was not easy for this commenter.

The change of title gives cause for an extension of the comment period, due to confusion in the title – is it a test or a methods test or is it just verbiage.

Response to Comment PP-6: Thank you for your comment letter; it was timely received. Yes, the Proposed Project is a control-methods test.

In regard to the extension of the comment period, please refer to the response to comment PP-1.

Comment PP-7: The El Dorado County Clerk currently has no record, and is not able to confirm, if the Notice of Availability/Notice of Completion had been submitted and circulated to the El Dorado County Clerk (per phone call on 7/30/2020). If the notice has not been posted, the project has not complied with CEQA Guidelines 15072 (d) that states the following:

"The county clerk of each county within which the Proposed Project is located shall post such notices in the office of the county clerk within 24 hours of receipt for a period of at least 20 days."

Response to Comment PP-7: The LWB timely filed the required Notice of Availability for the DEIR/DEIS with the El Dorado County Clerk.

Comment PP-8: Please recirculate a revised draft EIR/EIS.

Response to Comment PP-8: There has been no new information identified sufficient to require recirculation of the DEIR/DEIS. See also Master Response PP-G1.

Comment PP-9: By this comment letter, the Sierra Club objects to approval of the project, and objects to issuance and/or certification of a Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the project. The Draft EIR/EIS for the project is so inadequate that it has precluded meaningful analysis of the Proposed Project, environmental impacts, and alternatives. The agencies must prepare a revised Draft EIR/EIS and circulate same for public and decision-maker review, and for public comment.

Response to Comment PP-9: Thank you for your comment regarding the adequacy and sufficiency of the DEIR/DEIS. The lead agencies have determined that it is sufficient and adequate to proceed. A decision on the approval of the project is expected to be made by lead agencies in early 2022; all comments regarding that decision will be considered at that time. See also Master Response PP-G1.

Comment PP-10: Furthermore, a response to these comments must be a substantive response to each of these comments and not merely a statement such as "comment noted."

Response to Comment PP-10: The lead agencies have endeavored to substantially respond to all substantive comments. Where comments do not substantially address the environmental evaluation, alternatives, and other components of the DEIR/DEIS, or where it is deemed that no further action need be taken in response to the comment, it is sufficient to respond succinctly.

Case law holds that that the lead agency is not obligated to undertake every suggestion given them, provided that the agency responds to significant environmental issues and makes a good faith effort at disclosure.

Responses acknowledge comments addressing points and opinions relevant to consideration for project approval and discuss as necessary the points relevant to the environmental review. Brief responses are often provided where a comment does not raise a substantive issue relevant to the review of the environmental analysis. Such points are usually statements of opinion or preference regarding a project's design or its presence, as compared to those that address environmental impact and mitigation.

Comment PP-11: Scoping comments are part of the public record and must be available to the public. The comment matrix in the Scoping Comment Report is potentially helpful, but also quite confusing. All the comments on the Draft EIR/EIS will be part of the public record and must also be made available to the public.

Response to Comment PP-11: Scoping comments are publicly available and can be viewed at the LWB office or by request.

Comments received on the DEIR/DEIS and responses to them will be published as part of the FEIR/FEIS and made available on the project website.

Comment PP-12: The stakeholder process has been severely flawed. The "inner circle" of stakeholders only had one member, the Water Suppliers Association, that were very concerned about herbicides. All other groups selected for the inner circle of stakeholders were pro-herbicides, including the League to Save Lake Tahoe. Also, because of the pandemic, public participation has been limited and the ability to speak up at webinars was extremely limited and controlled. Only two public webinars were held, the first one only three days following the release of the Draft EIR/EIS and the second that did not allow the public to speak at all. Also, there were no follow-up discussions allowed and both email questions and questions asked during the webinars went unanswered.

Response to Comment PP-12: Public engagement opportunities throughout this process

included:

- In preparing for the public process, more than 40 stakeholder interviews were conducted as part of a comprehensive stakeholder assessment to provide a basis for the public process design. The Sierra Club was interviewed in this assessment process.
- A working group comprised of the lead agencies, project proponent, and key partners in water quality management in and near the Tahoe Keys lagoons was convened and met on a monthly schedule beginning late 2018. This "Stakeholder Committee" afforded insight into the potential effects of project design on parties that could be directly affected, supporting CMT design to minimize such effects.
- A group of approximately 30 agencies, organizations and individuals met several times between late 2018 and the end of the public comment period. This "Stakeholder Consultation Circle" afforded an opportunity to provide detailed updates on project scope, approach and findings to parties that previously expressed concerns, including the Sierra Club.
- Other opportunities for participation are listed in the response to comment PP-4.

Public comment, review and input received from all of these sources was given equal consideration in the environmental review process and lead agency decision-making. No party enjoyed privileged influence on the process, environmental evaluation, and project decisions.

Regarding the effects of covid restrictions on public processes, please refer to the comment response to PP-4.

Comment PP-13: Scientific review of the CMT project: The DEIS characterizes the CMT as a scientific study project (p. 3.4-7). The Tahoe Science Advisory Council provides technical peer review of scientific studies within the Lake Tahoe Basin. Recommendation: The USEPA recommends that lead agencies enlist the participation of the Tahoe Science Advisory Council in developing and/or peer reviewing both the experimental design and the effectiveness monitoring program of the selected CMT.

Response to Comment PP-13: Members of the Tahoe Science Advisory Council (TSAC) have been engaged throughout the environmental process, including the TSAC Director. Scientific peer review of the CMT is not a required component of CEQA or of the lead agencies' project approval.

REGULATORY APPROVALS

Comment REG-2: The environment needs to be protected from humans by humans! We're the ones responsible for the pollution and the damage to the ecosystems. We MUST not allow those who would pollute and destroy to have a free reign. Pass commonsense regulations to control those who cannot control themselves!

Response to Comment REG-2: Thank you for your comment on the need for regulation.

Comment REG-3: Please be advised that the U.S. Army Corps of Engineers, through the Regulatory Program, administers and enforces Section 10 of the Rivers and Harbors Act of 1899 (RHA) and Section 404 of the Clean Water Act (CWA). Under RHA Section 10, a permit is required for work or structures in, over or under navigable waters of the United States. Under CWA Section 404, a permit is required for the discharge of dredged or fill material into waters of the United States. If this project will place fill material below the ordinary high water mark of a regulated water, a permit may be required from this office. More information regarding our regulatory program is available on our website at, http://www.spk.usace.army.mil/Missions/Regulatory.aspx.

Response to Comment REG-3: Thank you for your comment providing information on the requirements of the U.S. Army Corps of Engineers regulatory program. As discussed in the DEIR/EIS, Activities subject to the Army Corp of Engineers permitting, such as a 404 permit, would require a section 401 Water Quality certification issued by the LWB.

Comment REG-4: It's also important for the Governing Board to understand that the Lahontan Basin Plan requires that non-chemical methods be done first and evaluated prior to the Lahontan Water Board making a decision to allow pesticides or herbicides to be used at Lake Tahoe. The environmental impacts may be considered less than significant; a violation of the non-degradation standard that's in place at Lake Tahoe because of the Outstanding National Resource Water designation, the allowance of herbicides would violate that standard and that would be considered a significant impact. Under the California Environmental Quality Act there can be a statement of overriding consideration that would allow that to happen looking at the benefits over the impact. Basin Plan requires non-chemical methods to be evaluated first. Don't test herbicides until non-chemical methods have been tested. To allow herbicides would violate standards and by definition would be a significant impact.

Response to Comment REG-4: See Master Responses WQO-G1 and ALT-G2, and response AQU-13.

Comment REG-5: Critical pieces in the regulatory decision-making process (Anti-degradation policy) are still pending. This decision is a major judgement in national and state anti-degradation policy and ONRW protection. Not having this information makes commenting on the DEIR more difficult.

Response to Comment REG-5: See Master Response AA-G1.

Comment REG-6: Per anti-degradation guidance, the Non-Point Source Plan should be augmented with additional storm-water and fertilizer management improvements to reduce land-based, non-point sourceloading. Such enhancements could include: Nitrogen fertilizer restrictions, requiring bufferstrips with a 'turf setback' zone (removing turf to edge of water landscaping), and the addition of storm drain inlet filters. Storm water was identified as the

second major contributor to watercolumn 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 policythat all cost-effective and reasonable BMP's must be in place before the State authorizes degradation of high quality waters.

Response to Comment REG-6: As illustrated on Figures 3.3.4-16 and 3.3.4-19 and described in Appendix F, 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 would not be expected to control coontail, other aquatic weeds, or algal blooms in the lagoon. 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 EIR/EIS Section 2.6.1 describes this nonpoint source management plan.

The LWB 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 REG-7: Page 3.4-10 Under the section heading state, "there is a statement that Department of Public Health (DPH) establishes drinking water standards for contaminants. That is not correct. Drinking water standards in California are established by the State Water Resources Control Board Division of Drinking Water (DDW)."

Response to Comment REG-7: Thank you for this correction. The reference to the establishment of drinking water standards in California will be corrected.

Comment REG-8: Section 6.1.5, page 6-5. Section on the Safe Drinking Water Act. The last sentence directs the reader to section 5.2.8 and the Porter Cologne Water Quality Control Act. Porter-Cologne has nothing to do with drinking water regulations. Recommend the last sentence be deleted. California's drinking water legislation is the State's Safe Drinking Water Act, which gives the State the authority to regulate drinking water and to set and enforce drinking water standards.

Response to Comment REG-8: Thank you for this correction. The reference to the Porter Cologne Water Quality Control Act will be deleted.

Comment REG-9: Based on review of the "Proposed Waste Discharge Prohibition and Exemption Criteria Language Pesticide Basin Plan Amendment," we noted that the Regional Board may consider application of pesticides in the cases of "public interest because they protect public health and safety or provide ecological preservation." One of the exemptions is for "control of aquatic invasive species or other harmful organisms under emergency or non-emergency situations (e.g., control of harmful cyanobacteria blooms affecting a drinking water supply, control of aquatic invasive species interfering with safe navigation)." As noted in the exemption criteria, if the Water Board decides to approve an exemption and issue a permit, Water Board staff would propose numeric limits for each aquatic pesticide project, and requirements are intended to ensure that project design and implementation will not unreasonably affect beneficial uses. In addition, "if an aquatic pesticide project is allowed to occur, the Regional Board must find that the discharge complies with the antidegradation policies, and water quality objectives are restored within the treatment area, within the shortest time reasonably possible after the application event." This will be something to note once the Antidegradation Analysis is provided for review.

Response to Comment REG-9: The NPDES Permit includes the Antidegradation Analysis as Attachment G. The documents are available at https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/

Comment REG-10: I'm also a law student, focusing on environmental issues. I know the law, and it does not support the use of herbicides in a federally designated "Outstanding Natural Resource".

Response to Comment REG-10: Tier 3 of the antidegradation policy provides the highest level of protection to water bodies. As discussed in the preamble to the water quality standards regulation, activities that result in short-term and temporary changes in the water quality of the ONRW can be allowed. In establishing the pesticide prohibition and exemption criteria, the LWB 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. See Master Responses WQO-G1 and HER-G1

Comment REG-11: This Draft EIR/EIS for the Project is an important document that provides the public and decision makers with complete and accurate information for which to base decisions on. Throughout the document, there is some inconsistency in correctly identifying services provided by the City of South Lake Tahoe and the (STPUD). The City owns, operates and maintains the public storm water drainage system, which operates under a National Pollutant Discharge Elimination System (NPDES) permit (Order R6T-2017-0100). STPUD provides sanitary sewer services for the areas within the City boundary, including the project area. This is correctly noted on Page 1-13 (Table 1-1) within the DEIR/DEIS: - Table 1-1: Correctly defines STPUD as a Local Agency that operates the sanitary sewer and wastewater treatment plant and would require a special permit agreement if treated dewatering effluent is discharged to the local sanitary sewer system. In a few locations, the Draft EIR/DEIS incorrectly implies the City owns, operates and maintains the sanitary sewer, which is not correct. If dewatering effluent is discharged to the City's storm water system, it will simply flow back into the lagoons. The following sections should clarify that the sanitary sewer is managed by STPUD, not the City of South Lake Tahoe, and that permits, and approval will be needed from STPUD for disposal of treated dewatering effluent in the sewer system, not the City:

Page 3.3.6-30 (Section 3.3.6.3 Action Alternative 2, Issue TE-2): "…three sites within the western lagoon would be dredged, and dewatering effluent could be discharged to the City of South Lake Tahoe sanitary sewer system or Lake Tallac …"

Page 5-7, third paragraph: "Under Action Alternative 2, three sites within the western lagoon would be dredged, and dewatering effluent could be discharged to the City of South Lake Tahoe sanitary sewer system or to Lake Tallac and ultimately Pope Marsh. If treated effluent is discharged water to the City of South Lake Tahoe system, there would be no significant impact."

Page 1-18 (1.4.4 Local Requirements- South Lake Tahoe Public Utility District). This paragraph correctly notes STPUD would require a special discharge permit agreement, but then states, "The City retains all its police powers under applicable Federal and State law, court cases …." It seems likely that the reference to the City should be replaced by STPUD in this occurrence. Page 2-35 (2.5.5 Dredge Dewatering Effluent Treatment and Disposal, third paragraph) refers to the general "South Lake Tahoe sanitary sewer" pump station at the corner of Tahoe Keys Boulevard and Venice Drive and again more generally in the second paragraph on page 2-37: "The South Lake Tahoe sanitary sewer has relatively modest additional capacity …." This should state that the sanitary sewer system is managed by STPUD, which is correctly noted in the subsequent paragraph.

Response to Comment REG-11: Thank you for these corrections. The references to the potential discharge of dewatering effluent under Action Alternative 2 will be corrected to clarify that the discharge would be made to the sanitary sewer system managed by South Tahoe Public Utility District (STPUD), not by the City of South Lake Tahoe, and that permits and approval would be required from STPUD.

Comment REG-12: The draft EIR/EIS does not provide any information to justify granting an exemption to the prohibition. It does provide justification to support denying the exemption in that it describes other technologies that have been shown to be effective in significantly reducing the aquatic plant population in other areas of Lake Tahoe and proposes to utilize these methods in the Tahoe Keys on a pilot scale. Therefore, the criteria to demonstrate that no other reasonable method to address the problem is not met.

Response to Comment REG-12: The draft resolution granting an exemption to the pesticide prohibition and the staff report were made available to the public after the DEIR/DEIS. Justification for the exemption is not a required component of the DEIR/DEIS. The DEIR/DEIS provides a description of the project and an environmental analysis of the impacts to the environment from the project. See Master Responses ALT-G1, ALT-G2 and HER-G1.

Comment REG-13: Since the FEDERAL government AND CALIFORNIA have designated Lake Tahoe as a Tier 3 “Outstanding National Resource Water”. the Clean Water Act requires that the water quality of Tier 3 waters must be maintained and protected without exception, meaning that Tier 3 waters must not be allowed to be degraded. As such, any degradation, such as the use of herbicides, requires an Anti-Degradation Analysis that meets both Federal and California regulations. The FAILURE of ALL NON-chemical methods must be demonstrated prior to authorizing the use of herbicides. TKPOA has NOT sufficiently tested NON-herbicidal treatment methods, and it certainly has not met this prohibition exemption requirement of demonstrating the ineffectiveness of non-herbicide treatment methods, but instead continues pursuing herbicide use. So, FOLLOW THE LAW and CHOOSE AA1 and ONLY consider NON-herbicidal methods of aquatic weed control.

Response to Comment REG-13: 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.” USEPA 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. The Federal regulations and policies do not state

that all non-chemical methods must be demonstrated prior to authorizing use. See Master Responses ALT-G2, HER-G1 and WQO-G1. Also see response AQU-13.

Comment REG-14: The Keys lagoons are hydrologically connected to Lake Tahoe, which is designated by the USEPA to be a Tier 3, Outstanding National Resource Water (ONRW), referring to the adoption of the ONRW language in 40 CFR 131.12. This means its high quality water must be protected and maintained according to State and Federal anti-degradation regulations. In addition, Lahontan's own Basin Plan requires that failure of all non-chemical methods must be demonstrated prior to authorizing the use of herbicides. TKPOA has not sufficiently tested non-herbicidal treatment methods, and it has not met this prohibition requirement of demonstrating the ineffectiveness of non-herbicide treatment methods.

Response to Comment REG-14: 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." USEPA 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. The Federal regulations and policies do not state that all non-chemical methods must be demonstrated prior to authorizing use. See Master Responses ALT-G2, HER-G1 and WQO-G1. Also see response AQU-13.

Comment REG-15: The Lahontan Basin Plan contains water quality standards that will be exceeded, including the non-degradation standard. The toxicity water quality objective in the Lahontan Basin Plan 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." Herbicides are toxic and the discharge of herbicides as proposed will kill aquatic plants. The target endothall treatment rate of 5 mg/L and maximum concentrations that may be expected for several weeks in the Tahoe Keys test plots and adjacent lagoons exceed the MCL for endothall in drinking water established by USEPA of 0.1 mg/L (and these surface waters are protected as sources of drinking water). These are all significant environmental impacts. The draft EIR/EIS must identify these impacts as significant.

Response to Comment REG-15: See Master Response WQO-G1.

Comment REG-16: "Issue LN-2: Conflicts with Land Use Plans, Policies, or Regulations. Conflicts with a land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect, could affect compliance. Potential conflicts evaluated include the environmentally mitigating policies and regulations listed in the TRPA Code of Ordinances, the Plan Area Statement (PAS) for Tahoe Keys (PAS-102), and the City of South Lake Tahoe General Plan… No conflicts with land use plans, policies or regulations would occur, and no mitigation is required." What about conflicts with federal antidegradation policy including Lake Tahoe's status as an Outstanding National Resource Water, the California State Water Resources Control Board Resolution 68-16, and the Lahontan Water Board's Basin Plan waste discharge prohibitions and water quality standards?

Response to Comment REG-16: The antidegradation policies are not land use plans, policies or regulations and so they are not discussed in Issue LN-2 of the DEIR/DEIS. See Master Responses WQO-G1 and AA-G1, and response AQU-9.

Comment REG-17: Under the Antidegradation Policy degradation is allowed, assuming the requirements are met, but water quality standards and objectives may not be exceeded. Since

the discharge of herbicides exceedance of a water quality objective for toxicity (killing native plants) and the creation of biostimulatory substances this is not allowable. Also, while the application of an herbicide may be of short duration, the degradation of beneficial uses, including killing native vegetation and the effects of biostimulatory substances may be long term. Page 237 in the EIR states, "It is likely that perhaps 60% of the Total Nitrogen would transition into the water column during decomposition". It cannot be concluded that a future permit will comply with the Antidegradation Policy for "short term" effects when such an analysis has not been completed nor distributed within the public comment period as it should have been.

Without a doubt, the next great tragedy will be if TRPA and Lahontan agree to give the TK a permit to destroy Lake Tahoe even further. A permit to allow them to pour herbicides onto their weeds as a "test" will exacerbate an already horrific situation. You even agree on page 151 that the potential exists for the blooms to get worse during the control herbicide test! This will degrade the water even further and somehow that is ok?

Response to Comment REG-17: See Master Responses WQO-G1 and AA-G1, and response CYB-16.

Comment REG-18: In 2018, the Tahoe Keys Property Owners Association (TKPOA) applied to the Lahontan Regional Water Quality Control Board (Lahontan) and the Tahoe Regional Planning Agency (TRPA) (the Lead Agencies) for permission to use herbicides, never before used in Lake Tahoe, to control weeds in the Tahoe Keys lagoons. The Lead Agencies determined that an EIR/EIS was required, released the Notice of Preparation (NOP) for the EIR/EIS on June 17, 2019, and published the Draft EIR/EIS on July 6, 2020.

Response to Comment REG-18: Thank you for your comment summarizing background information.

Comment REG-19: NEPA also requires concurrent preparation and integration of other environmental impact analyses with a Draft EIS. The NEPA Regulations are codified at 40 C.F.R. § 1500 et seq. NEPA Regulation § 1501.7(b)(6) requires that an agency, "Identify other environmental review and consultation requirements so the lead and cooperating agencies may prepare other required analyses and studies concurrently with, and integrated with, the environmental impact statement as provided in § 1502.25." NEPA Regulation § 1502.15(a) requires, "To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders."

Response to Comment REG-19: The DEIR/DEIS was prepared under CEQA and TRPA regulations, not under NEPA. It is not subject to NEPA requirements. See Master Response REG-G1.

Comment REG-20: The discharge of herbicides would violate the Basin Plan. The Lahontan Basin Plan requires demonstration that all non-chemical measures available failed to address the target plants prior to granting an exemption to the Basin Plan's discharge prohibition of herbicides. The Exemption Criteria for Control Aquatic Invasive Species (AIS) and Other Harmful Species in the Adopted Basin Plan Amendment includes exemption criterion 1, which states: "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 14364: "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.))" (emphasis added) TKPOA has not complied with this criterion, as shown in Appendix C (TKPOA's application), because they have not thoroughly tested the ultra-violet light (UV) treatment and Laminar Flow Aeration (LFA) methods at the Keys. Therefore, granting a discharge prohibition exemption for the release of herbicides by the Lahontan Water Board would violate the Basin Plan. The revised Draft EIR/EIS must justify the project's piloting herbicide use when the effectiveness of non-chemical is still being evaluated. If non-chemical methods haven't been fully evaluated, how can the criterion that other non-chemical methods have not addressed the problem effectively be satisfied?

Response to Comment REG-20: The draft resolution from the LWB granting an exemption to the pesticide prohibition and the staff report were made available to the public after the DEIR/DEIS. Justification for the exemption is not a required component of the DEIR/DEIS. The DEIR/DEIS provides a description of the project and an environmental analysis of the impacts to the environment from the project. See Master Responses ALT-G1, ALT-G2, and WQO-G1.

Comment REG-21: The agencies have failed to proceed in the manner required by law because the Draft EIR/EIS unlawfully includes a finding of no significant impact. As set forth in more detail below in General and Specific Comments, the use of herbicides is a significant and unavoidable impact that cannot be mitigated because its mere initial presence alone violates the toxicity, biostimulatory substances, and chemical constituent water quality objectives in the Basin Plan. Consequently, the findings in the Draft EIR/EIS, of no significant impact (p. ES-8; Chapter 5.), are the opposite of full environmental disclosure. The findings are false.

Under NEPA, "If the district judge finds that the agency did not make a reasonably adequate compilation of relevant information and that the EIS sets forth statements that are materially false or inaccurate, he may properly find that the EIS does not satisfy the requirements of NEPA, in that it cannot provide the basis for an informed evaluation or a reasoned decision." Sierra Club v. U.S. Army Corps of Engineers (2d Cir. 1983) 701 F.2d 1011, 1030. NEPA serves as an "environmental full disclosure law." Silva v. Lynn (1st Cir. 1973) 482 F2d 1282, 1284.

A primary goal of CEQA is "transparency in environmental decision-making." Save Tara v. City of West Hollywood (2008) 45 Cal.4th 116, 136. "CEQA requires full environmental disclosure." Communities for a Better Environment v. City of Richmond (2010) 184 Cal.App.4th 70, 88. The findings that there are no significant and unavoidable impacts that cannot be mitigated are not supported by substantial evidence. That violates CEQA Guidelines § 15091(b.) Because there are significant and unavoidable impacts that cannot be mitigated, the project cannot be lawfully approved without findings of overriding concern. CEQA Guideline § 15092(b.) A statement of overriding considerations, supported by substantial evidence, would be required if the project is approved. CEQA Guidelines §15093.

Response to Comment REG-21: See Master Responses WQO-G1 and REG-G1. The DEIR/DEIS was prepared under CEQA and TRPA regulations, not under NEPA. It is not subject to NEPA requirements.

Comment REG-22: The Lahontan Basin Plan requires demonstration that all non-chemical measures available failed to address the target plants prior to granting an exemption to the Plan's prohibition of herbicides. The Draft EIR/EIS fails as an environmental full disclosure document. The Draft EIR/EIS refers to the prohibition but fails to inform the reader of the criteria for seeking an exemption; one of which is demonstrating that non-chemical methods have not

been effective. (Draft EIR/EIS, pp. ES-3, 1-8, 1- 13, 3.2-4.) Technologies such as LFA and UV light have not been fully tested in Tahoe Keys as required by the Basin Plan.

Response to Comment REG-22: The draft resolution granting an exemption to the pesticide prohibition and the staff report were made available to the public after the DEIR/DEIS. Justification for the exemption is not a required component of the DEIR/DEIS. The DEIR/DEIS provides a description of the project and an environmental analysis of the impacts to the environment from the project. See Master Responses ALT-G1, ALT-G2, and WQO-G1.

Comment REG-23: The discussion of the impacts in the Draft EIR/EIS is inadequate to serve as the informational document required by CEQA and NEPA. CEQA Guideline §15262(a) specifies required contents of an EIR, including in pertinent part, "The Significant Environmental Effects of the Proposed Project. An EIR shall identify and focus on the significant effects of the Proposed Project on the environment… Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services…" The discussion of the impacts in the Draft EIR/S is inadequate to serve as the informational document required by CEQA. See Sierra Club County of Fresno (2018) 6 Cal.5th 502, 515-522. The information provided is inadequate with respect to determining whether an exemption to the herbicide prohibition is desirable or even lawful; assessing the public health and safety impacts of herbicide use and of the increased risk of harmful algal blooms; the impacts on water quality and fish and wildlife; and other issues. The missing Antidegradation Analysis is an example of the inadequacy of the Draft EIR/EIS to serve as the full disclosure informational document required by CEQA.

Response to Comment REG-23: The lead agencies have prepared a DEIR/DEIS that meets the requirements of CEQA and TRPA, including full disclosure of significant effects. The DEIR/DEIS was not prepared under NEPA and is not subject to NEPA requirements. The draft resolution from the LWB granting an exemption to the pesticide prohibition and the staff report were made available to the public after the DEIR/DEIS. Justification for the exemption is not a required component of the DEIR/DEIS. In addition, the DEIR/DEIS includes an evaluation of the impacts from herbicide use. Analysis and findings in Chapters 3 to 5 of the DEIR/DEIS address environmental effects and cumulative impacts to water quality, aquatic life, and human health as result of herbicide discharges and mitigation measures to minimize those impacts. Also see Master Responses AA-G1 and REG-G1.

Comment REG-24: NEPA imposes a procedural requirement on federal agencies to "take [ ] a 'hard look' at the potential environmental consequences of the proposed action." *Northern Plains Resource Council, Inc. v. Surface Transp*. Bd. (9th Cir. 2011) 668 F.3d 1067, 1075. Just as the information provided by the Draft EIR/EIS is inadequate under CEQA; it is likewise inadequate under NEPA. Instead of taking a hard look at the environmental consequences of the proposed action; the agencies have obscured any look at the environmental consequences by steaming full speed ahead without the Antidegradation Analysis.

The Draft EIR/EIS is inadequate because of the absence of accurate economic information to allow informed comparison of alternatives. Accurate economic information is required by NEPA. In Natural Resources Defense Council v. U.S. Forest Service (9th Cir. 2005) 421 F.3d 797, 811, the Ninth Circuit held that "[i]naccurate economic information may defeat the purpose of an EIS

by 'impairing the agency's consideration of the adverse environmental effects' and by 'skewing the public's evaluation' of the proposed agency action." Accurate economic analysis is required "to allow an informed comparison of the alternatives considered in the EIS." 421 F.3d at 813. The Draft EIR/EIS, however, fails to provide the required accurate economic analysis to allow an informed comparison of alternatives.

Response to Comment REG-24: The DEIR/DEIS was prepared under CEQA and TRPA regulations, not under NEPA. It is not subject to NEPA requirements. See also Master Responses AA-G1, CST-G1 and REG-G1.

Comment REG-25: The APU also requires a finding that "specifies that water quality degradation is permissible when balanced against benefit to the public…" And "If the Regional Board finds that lowering of water quality is consistent with the conditions established in the State policy [which it does not as pointed out in the previous comment] and the federal regulation, the finding should indicate: 1) The pollutants that will lower water quality; 2) The socioeconomic and public benefits that result from lowered water quality; and 3) The beneficial uses that will be affected." (emphasis added). Again, use of herbicides would benefit only Tahoe Keys homeowners, a very small group. The maximum benefit to the maximum number of people in the State would be realized from (a) installation of a barrier in the channel between the lagoons and Lake to provide short-term protection to the Lake, and (b) restoration of the dead-end lagoon portions of the Keys to nutrient-filtering wetland marsh. Eliminate the habitat for the weeds and you eliminate both the weeds and need for herbicides. Restoring the canals to wetland would immediately improve the water quality and clarity by filtering nutrients, sediments and pollution from the surrounding neighborhood of the Keys. The homeowners would keep their houses and only lose their ability to boat to the Lake from their backyards. We believe this is not too large a price to pay to save Lake Tahoe from the Keys. The Keys' homeowners could instead either launch their boats from the Tahoe Keys Marina or one of the other south shore marinas.

Under the Antidegradation Policy, degradation is allowed (assuming the requirements are met), but water quality standards and objectives may not be exceeded. Since the discharge of herbicides would cause an immediate exceedance of the water quality objective for toxicity by killing native plants, as well as cause a violation of the biostimulatory substances and chemical constituents water quality objectives, the proposed discharge of herbicides is not allowable. In addition, while the application of an herbicide may be of short duration, the degradation of beneficial uses may be long term by killing native vegetation and creating a condition whereby biostimulatory substances are released from the release of nutrients to the water column.

The APU also states "A Regional Board may decide that an antidegradation finding is not required because the proposed discharge is prohibited under either the State or federal policies. For example, if the proposed discharge will violate water quality objectives in the receiving water, no discharge will be allowed and therefore no antidegradation analysis is required." (emphasis added) This statement applies to the Proposed Project's discharge of herbicides, since a discharge would result in immediate and certain violation of the following water quality objectives:

(a) The toxicity water quality objective in Lahontan's Basin Plan would be immediately violated by the discharge of herbicides. The toxicity water quality 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." And "The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge…" (emphasis added). The phrase "all waters" includes the treatment zone where herbicides would be applied even though the December 2011, Basin Plan Adopted Amendment suggests that the receiving water

refers to the water outside the treatment area. Also, the Draft EIR/EIS claims that the herbicides are not toxic because their LC50' s (concentration at which 50% of test organisms exhibit a lethal response) are within acceptable limits, but the herbicides are toxic substances synthesized to kill aquatic plants, including native aquatic plants. There are also chronic toxicity effects on organisms trapped within the treatment zone that have not been considered or discussed anywhere in this Draft EIR/EIS. Therefore, the toxicity water quality objective is violated immediately by discharges and such discharges must not be allowed.

(b) The Chemical Constituents water quality objective, which states "Waters designated as MUN) shall 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 plan: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride), Table 64444-A of Section 64444 (Organic Chemicals), Table 64449A of Section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels Ranges). This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect." Since the beneficial uses for the waters of Lake Tahoe include MUN (Municipal and Domestic Supply), this water quality objective would be violated immediately by discharge of aquatic herbicides. The target endothall treatment rate of 5 mg/L and maximum concentrations that may be expected for several weeks in the Tahoe Keys test plots and adjacent lagoons exceed the Maximum Contaminant Level (MCL) for endothall in drinking water established by USEPA of 0.1 mg/L. This will pose a significant risk to drinking water drawn from Lake Tahoe or the Tahoe Keys Water Company's wells. (See Specific Comment 56 below.) Therefore, discharges of herbicides must not be allowed.

(c) The biostimulatory substances water quality objective state: "Waters shall 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." Chapter 3 of the Basin Plan also states "The concentrations of biostimulatory substances shall not be altered in an amount that could produce an increase in aquatic biomass to the extent that such increases in aquatic biomass are discernible at the 10% significance level." The use of herbicides would cause a rapid increase in the nutrient concentration in the water column, and consequently, an increase in harmful algal blooms (HABs) including cyanobacteria. Therefore, the application of herbicides would violate the biostimulatory substances water quality objective.

Response to Comment REG-25: See Master Responses WS-G1 and WQO-G1. Concerns regarding installing barriers in the lagoons are addressed in response ALT-17.

Comment REG-26: Lahontan's Basin Plan requires demonstration that all available non-chemical control methods have not effectively controlled the target plants prior to granting an exemption to the Plan's prohibition. During the scoping phase, the Sierra Club's comments stated that the Proposed Project's testing of herbicides was premature and in violation of the Basin Plan. The Draft EIR/EIS mentions the prohibition exemption required by the Basin Plan and even refers to "exemption criteria under which an exemption can be granted", but does not include a list of these criteria, one of which is demonstrating that all available non-chemical methods have not been effective. TKPOA cannot fully satisfy this criterion because the newer technologies, such as laminar flow aeration (LFA) and ultraviolet light (UV), have not been fully tested in the Keys, as required in the Basin Plan. TKPOA's primary method of managing the weeds has been

mechanical harvesting (mowing), which removes the top several feet of weeds to facilitate boating. Mowing has exacerbated the problem by releasing fragments that then take root and grow elsewhere. TKPOA has not thoroughly evaluated and tested other non-herbicidal treatment methods, such as those that would be tested under Action Alternative 1 and has certainly not met the prohibition exemption requirement of demonstrating the ineffectiveness of non-herbicide treatment methods before an exemption can be granted. TKPOA's application (Appendix C) attempts to provide rationale and justification for the use of herbicides in stating that the use of bottom barrier, hand pulling and/or diver-assisted suction removal, dredging (in other areas of the lake), and mechanical rotovating (harvesting) have failed over the course of the last 30 years. An adequate and extensive demonstration of the failure of non-chemical methods has not been done especially since LFA and UV light, newer technologies used very successful results elsewhere, have not been thoroughly tested in the Tahoe Keys.

Response to Comment REG-26: The draft resolution from the LWB granting an exemption to the pesticide prohibition and the staff report were made available to the public after the DEIR/DEIS. Justification for the exemption is not a required component of the DEIR/DEIS. The DEIR/DEIS provides a description of the project and an environmental analysis of the impacts to the environment from the project. See Master Responses ALT-G1, ALT-G2, and WQO-G1.

Comment REG-27: Table ES-1, under the Mitigation column for EH-2, Detectable Concentrations of Herbicides and Degradants in Receiving Waters, states: "Detectable concentrations of discharged herbicides and their degradants would be controlled as a temporary condition allowable only for weeks to months." Any detectable concentration (i.e., the very act of discharge) violates the Toxicity and Chemical Constituents water quality objectives and therefore is a significant and unavoidable impact that requires a statement of overriding considerations.

Response to Comment REG-27: See Master Response WQO-G1.

Comment REG-28: The question of whether the discharge of herbicides is infeasible because either it violates the antidegradation analysis or water quality objectives (as it does – see previous comments), is a good question, and this Draft EIR/EIS clearly fails to answer it. The response to these comments and the revised Draft EIR/EIS must also answer it.

Response to Comment REG-28: The antidegradation policies and water quality objectives are not expected to be violated by the presence of herbicides. See Master Responses ALT-G2 and WQO-G1.

Comment REG-29: Issue EH-2, Detectable Concentrations of Herbicides and Degradants in Receiving Waters, (page 3.1-2) states: "State and federal antidegradation policies and the Basin Plan require that, in receiving waters outside herbicide treatment areas and in all areas after treatment events, detectable concentrations of introduced chemicals are only allowable if beneficial uses are protected and maintained." That is not actually what the State and Federal antidegradation policies and Basin Plan say. The authors of this document have interpreted the policies and Basin Plan incorrectly, and the above statement should either be deleted or revised to correctly interpret antidegradation policies, which are cited below.

- The Federal Antidegradation policy states in CFR 131.12(a)(3) is: "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."
- USEPA's guidelines on this state the following (Water Quality Standards Handbook,

Chapter 4): “Outstanding National Resource Waters (ONRWs) are 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. ONRWs are often regarded as highest quality waters of the United States: That is clearly the thrust of 131.12(a)(3). However, ONRW designation also offers special protection for waters of "exceptional ecological significance." These are water bodies that are important, unique, or sensitive ecologically, but whose water quality, as measured by the traditional parameters such as dissolved oxygen or pH, may not be particularly high or whose characteristics cannot be adequately described by these parameters (such as wetlands). The regulation requires water quality to be maintained and protected in ONRWs. USEPA interprets this provision to mean no new or increased discharges to ONRWs and no new or increased discharge to tributaries to ONRWs that would result in lower water quality in the ONRWs. The only exception to this prohibition, as discussed in the preamble to the Water Quality Standards Regulation (48 F.R. 51402), permits States to allow some limited activities that result in temporary and short-term changes in the water quality of ONRW. Such activities must not permanently degrade water quality or result in water quality lower than that necessary to protect the existing uses in the ONRW.” (emphasis added) The Sierra Club contends that the use of herbicides in Tahoe Keys cannot reasonably be expected to be a one- time event as there is no documented evidence that a one-time use of aquatic herbicides is effective in reducing invasive aquatic weeds, and repeated use of herbicides does not meet the definition of “temporary and short-term changes in the water quality.”

- The State antidegradation policy states: “Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with the 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 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 State Water Resources Control Board’s guidelines on implementation state: “Regional Board staff shall not recommend that the activity be permitted unless all of the following conditions are met: …(b) The reduction in water quality is consistent with maximum public benefit. (c) The reduction in water quality will not unreasonably affect actual or potential beneficial uses. (d) Water quality will not fall below water quality objectives prescribed in the Basin Plan.” (emphasis added) Clearly, conditions (b), (c), and (d) cannot be satisfied. Therefore, the Water Board must recommend against herbicide use.
- The Basin Plan states (page 3-2): “On October 28, 1968, the State Water Resources Control Board adopted Resolution No. 68-16, “Statement of Policy with Respect to Maintaining High Quality of Waters in California,” establishing an antidegradation policy for the protection of water quality. This policy requires continued maintenance of existing high quality waters. Whenever the existing quality of water is better that the quality of water established in this Basin Plan as objectives (both narrative and numerical), such existing quality shall be maintained unless appropriate findings are made under the policy.” It also states: “Section 114 of the federal Clean Water Act also indicates the need to “preserve the fragile ecology of Lake Tahoe.”” Therefore, the policies and plans

say nothing relevant to allowing detectable levels of chemicals outside treatment areas and after treatment within treatment areas if beneficial uses are protected and maintained. TRPA is certainly not complying with the Clean Water Act mandate to preserve Lake Tahoe by publishing a DEIS that would permit testing of herbicides in the Keys and prioritizing private boat recreation over the health of Lake Tahoe.

Response to Comment REG-29: The language on page 3.1-2 is not a quote of the Antidegradation Policies or the Basin Plan but rather a summarization of some of key considerations that the Water Board might take when conducting the Antidegradation Analysis in the context of pesticides. See Master Responses AA-G1, ALT-G2, WQO-G1, and responses HE-22 and REG-19. The draft NPDES Permit and antidegradation analysis is available at https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/

Comment REG-30: The bottom of page 3.2-3 states that "states may allow some limited activities that result in temporary and short-term changes to water quality, subject to protection of beneficial uses. These changes would not be allowed to adversely affect existing uses or alter the essential character or special uses for which Lake Tahoe was designated as an ONRW." This statement correctly paraphrases pages 5 and 6 of the APU. However, as stated above under General Comments (#15), the APU also states "if the proposed discharge will violate water quality objectives in the receiving water, no discharge will be allowed and therefore no antidegradation analysis is required." Because the discharge of herbicides would result in immediate and certain violation of the toxicity and chemical constituent water quality objectives, the use of herbicides is not allowed.

Response to Comment REG-30: See Master Response WQO-G1.

Comment REG-31: The time frame "weeks to months, not years" cited at the top of page 3.2-4 refers to USEPA antidegradation regulations. Its message: limited short-term degradation might be permitted if stringent conditions are satisfied, but long-term degradation is prohibited. Indeed, the State Water Resources Control Board and the Regional Water Boards do have discretion to determine the allowable time frames of long-term and short-term existing water quality degradation within this guidance. Experience at many other lakes has shown that one-time use of herbicides does not control aquatic weeds in subsequent years and that annual applications of herbicides are required. "Weeks to months" of short-term degradation for an indefinite number of years after the first application obviously violates the "not years" prohibition of long-term degradation. In the context of the present project, experience has shown that the project applicants' weed control goal would require future annual applications of herbicides. Furthermore, as stated in General Comment #18, two of TKPOA's NPDES and Basin Plan Pesticide Prohibition Exemption applications have recognized that herbicide treatments must be repeated to be effective. These applications proposed up to 12 year of herbicide treatments. If the agencies contend that aquatic weed control in the Tahoe Keys lagoons would not require future annual herbicide applications, they must provide peer-reviewed evidence supporting this contention.

Response to Comment REG-31: See Master Responses ALT-G2 and HER-G1. The Draft NPDES Permit is available at https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/

Comment REG-32: The discussion of the State regulatory framework on page 3.2-4 paraphrases the Administrative Procedures Update on Antidegradation Policy Implementation for NPDES Permitting (APU) as follows: "If approved for use, detectable concentrations of herbicide active

ingredients and degradants exceeding background would be allowed within treatment areas only for a short-term period (i.e., weeks to months, not years) to maintain compliance with antidegradation requirements. In receiving waters outside of treatment areas, short-term detectable concentrations of herbicide active ingredients and degradants exceeding background concentrations are only allowable if beneficial uses are protected and maintained." This is erroneous. There are no references in the APU regarding concentrations "inside treatment areas" vs concentrations "outside treatment areas." In fact, there are no references to treatment areas whatsoever, only references to receiving waters. A correct interpretation of the APU must be substituted in a revised Draft EIR/EIS.

Response to Comment REG-32: The referenced section in the DEIR/DEIS is not a quote of the APU but rather a discussion of key elements that would be considered by the Water Board in the context of pesticides and the antidegradation policies. See Master Responses WQO-1 and AA-G1, and response HE-22.

Comment REG-33: Page 3.3.1-3 states "Subject to determination by USACE, the activities under Action Alternative 2 could potentially qualify for a general permit under NWP 27 (Aquatic Habitat Restoration, Enhancement, and Establishment Activities) or NWP 35 (Maintenance Dredging)." NWP 27 is intended to permit restoring and/or enhancing aquatic habitats; an NWP 27 permit for dredging the Keys would be highly inappropriate. Restoring the lagoons to their marsh habitat is the only activity could be permitted by an NWP 27 permit; dredging out the lagoons to recreate an unnatural lagoon primarily for boat traffic cannot be permitted. AA-2 dredging might qualify for an NWP 35 permit, but since the lagoons have not been dredged since they were constructed, AA2 dredging probably wouldn't qualify for an NWP 35 permit either. An individual permit from the USACE would likely be required. It is surprising that Lahontan Water Board staff, who are familiar with the activities allowed by these permits, did not notice these questionable statements about NWP permits during the Administrative Draft review of this document.

Response to Comment REG-33: The lead agency provided information on different nationwide permits the United States Army Corp Engineers (USACE) may consider; however, an individual permit may also be required by the USACE. That is a decision for the USACE to make.

Comment REG-34: State Water Board Resolution 68-16 states (in part): "2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge into 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 Proposed Project does not appear to be able to meet these requirements. Discharging herbicides in concentrations above drinking water standards to sources of drinking water does cause water pollution and nuisance. Discharging herbicides that result in aquatic plant die off and decomposition resulting in increased nutrient levels that cause algal blooms, including toxic blue green algae would also be considered a nuisance impacting recreational use of the Tahoe Keys. The draft EIR/EIS must address part (b) and identify ways to limit changes in water quality and maintain the highest water quality consistent with maximum benefit to the people of the State. Controlling weeds without the use of introduced herbicides or other chemicals would maintain the highest water quality and eliminate the concerns of potentially impacting water supplies for drinking water purposes. I understand that the policy provides for limited degradation and alteration of water quality when the impact occurs over a short term period, which USEPA has defined as weeks and months, not years. Some herbicides may persist longer than months in the water column or within the groundwater because of the low temperatures in

the surface water and the lack of carbon and bacteria found in the ground and groundwaters of the area. Our local conditions in both surface and ground waters slow the decomposition and break down of herbicides, so the estimates provided in the draft EIR/EIS may not be accurate.

Response to Comment REG-34: The DEIR/DEIS includes an evaluation of the decomposition and break down of herbicides based on scientific studies. No studies have been presented by the commenter that would indicate that the estimates provided in the DEIR/DEIS are inaccurate. See Master Responses WQO-G1 and HER-G1, and responses WQM-5 and WQM-6.

Comment REG-35: Apparently, from my reading all the available documents, Lake Tahoe is a Tier 3 Water Body in which herbicides are prohibited. Getting an exemption to the Basin Plan to pour herbicides into lagoons full of invasive weeds and cyanobacteria is a clear violation of the Clean Water Act.

Response to Comment REG-35: The antidegradation policy does not prohibit discharges into ONRWs. Short term and temporary changes to ONRWs are permitted, including those changes that may result from pesticides. See responses AA-1 and HE-22, and Master Responses WQO-G1 and HER-G1.

RESTORATION

Comment RES-1: The stagnant, backwater lagoons at the Keys should ultimately be restored to marsh, which is the only true solution to being rid of the weeds in the Keys. Removing the habitat for the weeds will save the lake without poisoning it!

Response to Comment RES-1: See Master Responses GEN-G1 and RES-G1.

Comment RES-2: Let the Keys re-wild to the original marsh!

Response to Comment RES-2: See Master Response RES-G1.

Comment RES-3: I propose we fill in the Tahoe Keys and take responsibility for the mistake of removing a crucial wetland to Lake Tahoe. A Tier III water source.

Response to Comment RES-3: See Master Responses GEN-G1 and RES-G1.

Comment RES-4: The purity, clarity and ecological health of Lake Tahoe (not to mention the region's tourist economy) are far more important than the convenience of TKPOA boat-owners. The Keys was a disaster from the day the natural wetlands were dredged to build it. It's time to heal the scars and restore the wetlands. Heal the lake, get rid of the weeds for good. It's that simple. Stop putting band aids on severed arteries.

Response to Comment RES-4: See Master Responses GEN-G1 and RES-G1.

Comment RES-5: I believe it is necessary to restore the Marsh as much as possible and preserve the clarity of the lake by eliminating fertilizer use in the Keyes, closing most of the lagoons to boats, and aggressively pursuing the non-herbicidal methods of weed control to kill the invasive weeds. I recognize these suggestions create other challenges--what to do with the boats now "parked at home', for example, but "the greater good" for Lake Tahoe is paramount.

Response to Comment RES-5: See Master Responses GEN-G1,HER-G1, and RES-G1, and responses AWM-4 and AWM-561.

Comment RES-6: Tahoe keys should have never been allowed to be built in the first place. I strongly support restoring natural wetlands.

Response to Comment RES-6: See Master Response to comment RES-G1.

Comment RES-7: Chemical treatments for weeds are often not successful in the long term. The best solution to treat this problem would be to return that area to a natural wetland and remove the open waterways in the Keys subdivision. this would eliminate the habitat for the introduced weeds and provide better sediment protection for the lake from the Upper Truckee River.

Response to Comment RES-7: See Master Responses RES-G1 and HER-G1.

Comment RES-8: Everyone down stream from Tahoe and depending on the Truckee River Watershed (Reno, Sparks, Tahoe Regional Industrial Center, Fernley, Pyramid Lake...) will be

poisoned too and that means all the way out to Fallon and their agriculture and the Stillwater Wetlands. The water in the Lahonton Reservoir at Silver Springs will be affected too because it is partially filled with water from the Truckee River. The Fernley Canal carries this Truckee River water so I say call for volunteers and let us restore the natural wetlands of Tahoe!

Response to Comment RES-8: See Master Responses RES-G1 and HER-G1.

Comment RES-9: In addition, the Lead Agencies should begin addressing the long-term problem by RESTORING MOST of the lagoons to MARSH HABITAT. It always bothers me that HUMANS CREATE a problem-DESTROYING parts of the Marsh, which FILTERS NEEDED WATER for the Lake. Returning the keys lagoons to a healthy functioning wetland would solve the weed problem by eliminating the weed's habitat. It would eliminate the need for herbicides. The wetland would filter nutrients and pollution from Tahoe, immediately improving the water quality and clarity of our cherished Lake Tahoe. Done well, it could enhance the Tahoe Basin's health, beauty and quality of life, while preserving property values. It's time for some of the humans who CREATED this problem, (along w/global warming that contributes to the warming of the lagoons), To be solved in an ENVIRONMENTALLY-friendly way. Thank you for PROTECTING the MARSH with-OUT chemicals!

Response to Comment RES-9: See Master Response to comment RES-G1.

Comment RES-10: Dredging Tahoe's largest natural wetland to build 1,500 homes and associated canals in the 1960s (now known as the Tahoe Keys) was an ecological disaster, something that would never be approved today. This project destroyed the lake's natural filtering system (a healthy wetland) and replaced it with artificial canals that are now rife with invasive aquatic weeds (Eurasian milfoil and curly leaf pondweed) and dangerous algae blooms. The Keys' unnaturally warm water encourages the growth of harmful algae, including deadly cyanobacteria and other non-native species. I would prefer returning the lagoons (i.e., the stagnant, dead-end canals) to a healthy, functioning wetland. Eliminating the habitat for the weeds and eliminates both the weeds and need for herbicides. Restoring the canals to wetland would immediately improve the water quality and clarity by filtering nutrients, sediments, and pollution from the surrounding neighborhood of the Keys. Done well, it could enhance the health, beauty, and quality of life at the Keys while saving tens of millions of taxpayer dollars. Natural wetland habitat (and perhaps some boardwalks or hiking trails) in that location would restore wildlife habitat and natural beauty, while enhancing quality of life and opportunities for outdoor recreation. Nature has proven that if we put the pieces back, natural systems will return. A wetland habitat would begin filtering and purifying the waters that feed Lake Tahoe. If we really want to Keep Tahoe Blue, it's time to restore the canals and lagoons at the Keys.

Response to Comment RES-10: See Master Response to comment RES-G1.

Comment RES-11: Restoring to marsh some or all of the stagnant lagoons would provide habitat for birds and other wildlife and could be done in a way to increase property values, beauty and quality of life. In addition to reducing the growth and spread of the weeds through non-chemical methods, the long-term problem should be addressed by restoring some or all of the lagoons to marsh habitat.

Response to Comment RES-11: See Master Response to comment RES-G1.

Comment RES-12: Add to all alternatives a test of restoration. I recognize the argument that restoration need not be tested. However, demonstrating the benefits of restoration and providing homeowners an example of 'what could be' would assist in a future discussion and decision-making regarding long term management of the Tahoe Keys. Without this type of test of restoration, homeowners may not feel secure in supporting a future restoration plan without seeing first-hand what it would look like and how it can be integrated into the overall development. Since a few areas of the Tahoe Keys lagoons have been identified as possible major contributors of aquatic weeds due to being stagnant, shallow, and warmer, consider a test that fills and restores one to three of these areas using coarse clean sand and native sod to restore small areas to meadow. Identify areas based on their frequent lack of navigability or desire of adjacent property owners to modify lagoon areas that are unsightly, odorous, and algae/weed-ridden.

Response to Comment RES-12: See Master Response to comment RES-G1.

Comment RES-14: The unnatural ecosystem of the Keys has detrimental effects on the ecology of the Lake from the dispersion of aquatic weeds and adverse impacts on the health of native fish and benthic macroinvertebrates. The Keys' habitat today is suitable only for boating and invasive weeds. Even the fish present in the Keys are nonnative and are not considered recreational game fish by the California and Nevada wildlife agencies. Also, with 1500 homes on the banks of the lagoons, there is a significant likelihood that other invasive species that could spread to Lake Tahoe will be introduced into the lagoons. Aquarium species have been introduced into the lagoons in the past. Restoring at least the dead-end lagoons to marsh is the only effective long-term solution.

Response to Comment RES-14: See Master Response to comment RES-G1.

Comment RES-15: Page 3.3.4-53, under Suction Dredge Permitting Program, states that "the California Department of Fish and Wildlife is currently prohibited from issuing any permits for suction dredging under the Fish and Game Code. However, this project alternative is designed to test suction dredging as an environmental restoration method and there will be no attempt at mineral recovery, so the ban on suction dredging for mining does not apply." (emphasis added) To call Action Alternative 2, the dredging, disposal, and replacement project, an environmental restoration method is an insult to all environmental restoration projects. Dredging the Keys to return it to what it was after destroying the original marsh can hardly be called an "environment restoration" method. As said previously, this alternative will only produce the same type of unnatural environment that caused the problem in the first place instead of removing the problem, the habitat for the weeds. Has the California Department of Fish and Wildlife been contacted to verify the assumption that the suction dredging ban does not apply?

Response to Comment RES-15: CEQA requires that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d]). In addition, the CDFW prohibition specifically defines that suction dredging is for the purpose of mineral recovery, which would not be applicable to dredging conducted under AA2.

WATER QUALITY

Comment WQ-1: Keep Tahoe blue!! We we're just at the Tahoe keys yesterday and notices the water color quality was super green instead of blue and there was a huge amount of weeds washing up on the beach! This needs to be dealt with without damaging the lake!

Response to Comment WQ-1: See Master Response WQ-G1.

Comment WQ-2: There must be a better way. Lake Tahoe is too important to damage the water. All of California has a right to its clean water for recreation of all kinds, not just boaters.

Response to Comment WQ-2: See Master Response WQ-G1.

Comment WQ-3: My family has a home in Truckee and recently acquired a boat. Tahoe is our recreation area all year. The water quality is extremely important to us. We must care for the lake for all future generations. A few weeds in one area does not count as much as the entire rest of the lake. Do not destroy the lake for a few people.

Response to Comment WQ-3: See Master Response WQ-G1.

Comment WQ-4: I've been coming to Tahoe every winter and spring for almost 15 years. It's a beautiful area. I'm surprised that the local government would risk the purity and color of Lake Tahoe, that draws people from all over the world to visit, work, and play here just to help a small minority save some money and effort to kill some weeds.

Response to Comment WQ-4: As described in the introductory Chapter 1 and evaluations of the No Action Alternative in Section 3.3.4, the water quality of Lake Tahoe is threatened by not controlling aquatic weeds in the Tahoe Keys lagoons. See also Master Response WQ-G1 and response AWM-4.

Comment WQ-5: Having enjoyed the Tahoe area my entire life, the idea of eutrophication in this pristine lake is a nightmare and detrimental to the area's vibrant tourism industry. Please take up this matter with the utmost seriousness.

Response to Comment WQ-5: See Master Response WQ-G1.

Comment WQ-6: We cannot afford to lose the purity of our fresh waters in ANY of our lakes, rivers or tributaries. Lake Tahoe is a treasure and everything possible should be done to protect it.

Response to Comment WQ-6: See Master Response WQ-G1.

Comment WQ-7: It is so important to keep beautiful Lake Tahoe clean.

Response to Comment WQ-7: See Master Response WQ-G1.

Comment WQ-8: Clean water is more important now than ever. If we keep the lake clean now, we won't have to pay to clean it later or try to replenish wildlife that has been lost

Response to Comment WQ-8: See Master Response WQ-G1.

Comment WQ-9: I am a frequent visitor to Lake Tahoe and the water quality is something that makes the lake so magical. We cannot let anything harm Tahoe's water and must do all we can to preserve it!

Response to Comment WQ-9: See Master Response WQ-G1.

Comment WQ-10: Under the 3.3.4 Water Quality introduction, the statement is made that the "potential changes in lagoon water quality from testing aquatic weed control methods are not expected to be measurable in the greater Lake Tahoe," however, no reasoning beyond the size differential between the lagoons and the lake is given for this statement. This statement requires substantiation. In addition, there are some inconsistencies is labeling items as Issue 3, or Issue WQ-3, etc. Consistency in naming throughout the section on whether it is a mitigation, an Impact Issue, etc. would help navigate the document.

Response to Comment WQ-10: The purpose of this introductory paragraph was to explain why the focus of water quality evaluations is on receiving waters that must be protected within the lagoons. The statement in question was substantiated further throughout Section 3.3.4 by addressing the potential degree and extent of water quality impacts under each issue, and describing resource protection and mitigation measures that would minimize these effects such that adverse water quality effects would not be significant within the lagoons. Included in these resource protection measures would be turbidity curtains to limit the movement of turbidity from test sites toward the West Channel and Lake Tahoe, and double turbidity curtains to 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. See also responses to comments ALT-39 and WQ-14. Issue 3 will be edited to say Issue WQ-3 on page 3.3.4-50, and Issue 1 will be corrected to Issue WQ-1 on page 3.3.4-52.

Comment WQ-11: Under Section 3.3.4 Potentially Impacts, discussion of dissolved oxygen, total phosphorus, and total nitrogen, general statements are made that the effects on overall conditions are expected to have a less than significant impact. However, no numbers or data are given to substantiate this claim or to show how the Proposed Project or alternatives would have the potential to impact these levels.

Response to Comment WQ-11: Available data on nutrient loading and nutrient cycling in the lagoons, including estimates of plant biomass and nutrient release rates, is provided in Appendix F and summarized in Section 3.3.4 under Issues WQ-6 and WQ-7. This information supported expectations that nutrient increases in lagoon waters and oxygen depletion could be important potentially significant impacts during plant decomposition following herbicide or UV light treatments. In the absence of proposed activities nutrients are released to the water column when aquatic plants die back and decompose in the summer and fall. Testing control methods in the late spring when aquatic plants are small would be a reduction in nutrient loading to the lagoon waters from decomposing plants compared to the release that occurs from

fully grown plants. However, increased nutrient concentrations in the summer were considered a potentially significant impact due to the possibility of increased HABs occurrence. Timing of treatments when plants would be small, numbers of acres of test sites where plant decomposition would be happening at any one time, and increased water circulation and decreased near-surface water temperatures from aeration systems were all information or resource protection measures that contributed to a conclusion that impacts from nutrients would be less than significant.

Comment WQ-12: Under Section 3.3.4 Alternative 2 Potential Impacts, the discussion notes that "If rigorous implementation of spill control and containment plans and treatment of any dredge spoil dewatering effluent meets turbidity limits, these potential impacts are expected to be less than significant with mitigation." This statement has numerous unknowns. The requirement of meeting the control and containment plans as well as details regarding treatment should be part of the mitigation measures. The specific mitigation measures that will reduce these impacts and how they will reduce impacts to below levels of significance should be outlined.

Response to Comment WQ-12: CEQA requires that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d]). The discussion of the impact and mitigation associated with this alternative meets the level of detail required.

Comment WQ-13: Issue EH-4, Introduction of Toxic Substances into the Environment, on page 3.1-2 states: "Basin Plan water quality objectives state that all waters shall be maintained free of toxic substances in concentrations that are toxic to, or produce detrimental physiological responses to, human, plant, animal, or aquatic life." Yet, this objective is omitted from the later discussion of each method's impacts on water quality objectives and other objectives, for example dissolved oxygen, are included. The response to comments must acknowledge this omission, and the revised Draft EIR/EIS must include discussion of this water quality objective.

Response to Comment WQ-13: Not an omission, the narrative Basin Plan water quality objective for toxic substances was addressed in Section 3.2 Environmental Health rather than in Section 3.3.4 Water Quality. The second paragraph of Section 3.3.4 alerted readers that several potential water quality issues overlap with other disciplines and are addressed elsewhere in the DEIR/DEIS. This paragraph specifically directed readers to Section 3.2 for the evaluation of potential toxicity.

Comment WQ-14: Section 3.1.1.5 compares the volume of Lake Tahoe to the volume of the Keys. This comparison is repeated in the Draft EIR/EIS several more times. The significance of these comparisons of volumes is not discussed. The exchange rate between the lake and lagoons is not mentioned anywhere in the document, but the references to the differences in volumes either imply complete mixing occurs or that the affected area for herbicides, 16.9 acres, is relatively small. In either case, repeated mention of the two volumes has no apparent purpose. Page 3.3.5-15 mentions the "lack of mixing between the lagoons and greater Lake Tahoe." LaPlante's Masters Thesis (2008) found that the range of mean residence times for the West

Lagoon is 2 to 7 days. However, these mean residence times were determined only for the 1/3 of the West Lagoon area immediately inside the channel connecting the West Lagoon to the Lake. Thus, there is minimal to no mixing between the Lake and the dead-end sections of lagoons.

Response to Comment WQ-14: Comparing the volumes within the Lake Tahoe and the Tahoe Keys was simply one more point to emphasize the unlikelihood of detectable concentrations of herbicides migrating to Lake Tahoe proper resulting from proposed testing in the lagoons was supported by Rhodamine WT dye tracing studies conducted by Dr. Lars Anderson in 2016. A copy of the report can be found on the project website at: https://3ovs9mxsv9l3frcrzkxuuttt-wpengine.netdna-ssl.com/wp-content/uploads/2018/12/Rhodamine-WT-Dye-Study-Report.pdf.

Comment WQ-15: Issues WQ-6 and 7 on page 3.1-8 refer, respectively, to the increased total phosphorus and nitrogen concentrations in the water column from the decaying aquatic plants during and after weed control treatments, but "lead to lower concentrations from aquatic dieback in the fall. Long term, a reduction in nitrogen [and phosphorus] release from decaying plants would be accomplished where dense aquatic weed beds are successfully treated." Water column concentrations may be reduced, but this statement is misleading at best because no nutrients are actually being removed from the system as a whole by the use of herbicides. The nutrients are taken up from the sediments by the plants during the growth cycle and partially released to the water column upon decay; the decaying plant tissues settle back into the sediment and return their remaining nutrients to the sediment. The conclusion that the use of herbicides will reduce the nutrient concentrations in the system is false. Laminar flow aeration might very well reduce the nutrients, but herbicides will not.

Response to Comment WQ-15: The cited statement specifically addresses water column concentrations because (1) Basin Plan water quality objectives are for water column concentrations, and (2) water column concentrations would be a potential concern for stimulating increased occurrence of algal blooms. Only suction dredging in Action Alternative 2 or diver assisted suction/hand pulling as a Group B aquatic weed control method would physically remove any nutrients from the lagoons. Where aquatic weed control is successful in limiting weed growth and the transfer of nutrients from the sediments to plant tissues, there will be less nutrients released to the water column during plant decay.

Comment WQ-16: The assertion that nutrient levels in the Keys are no different than those in other lakes in the Sierra Nevada is misleading at best (statement made during workshop on August 11, 2020, and cited in this Draft EIR/EIS in reference to the Homyak et al, 2014, study of 50 lakes in the Sierra Nevada). Appendix F even begins by stating "Annual average values for TN and TP in the Tahoe Keys exceeded their relevant WQOs for each year from 2007 to 2013 (SEA 2017a). In 2016, even the minimum values recorded for TN and TP exceeded relevant WQOs for the Marina Lagoon, the Main Lagoon and Lake Tallac. Clearly, the Tahoe Keys lagoons should be considered "enriched" with nutrients." If, indeed, it was truly the case that anthropogenic sources are not enriching the Tahoe Keys (as stated in numerous places throughout the Draft EIR/EIS, then what source are enriching the Keys and why is this not disclosed? The assertion that nutrient levels in the Keys are no different than other Sierra lakes is a specious argument that is further refuted by the following:

- The few (8 total, including 3 duplicates) sediment samples taken in late July and September of 2019 (as shown in Appendix E and F) were taken at the height of, and after, plants have been absorbing nutrients from the sediment. The lakes in Homyak's study, if they have macrophyte problems at all, do not have huge macrophyte problems comparable to the problem in the Keys. Therefore, there is no similar uptake of nutrients by macrophytes in the 50 Sierra lakes.
- Appendix E and F do not explain how the sediments were sampled and how that sampling method compares with the meticulous sampling method of Homyak et al., 2014. For instance, the Homyak study took cores that were 30 cm deep and generally found gradually declining P levels with depth (approximately 1200 mg/kg down to 800 mg/kg in Emerald Lake). Appendix E and F do not discuss any methods or sampling details, such as depth of the cores taken, which makes comparisons with the Homyak study, and conclusions based on those comparisons, very problematic.
- Appendix E describes several sampling difficulties, such as "For some samples aquatic weeds were caught in the jaws of the sampler preventing complete closure, resulting in additional water that entered the Ponar and washed out some of the sediment in the grab…. In those samples the water was homogenized together with the sediment, which increased the water content in the sediment and may have diluted concentrations of nutrients." Also, the holding temperatures of all but one of the samples exceeded 6°C, the holding temperature recommended by QAPP guidance (noted as HTe in a footnote to Table 15). Therefore, the sampling results are highly suspect, and drawing any conclusions based on comparisons with the Homyak study is highly misleading and inappropriate.
- Homyak's study stated: "lake sediments behaved as P sinks, likely owing to well-oxygenated waters that limit reducing environments and to interactions between P and metal oxides, in particular Al." Well-oxygenated sediments are not the case in the Keys.
- Homyak's study looked primarily at phosphorus, yet Appendix F states "nitrogen is the more ecologically relevant nutrient (i.e., limiting to algal productivity) in the Main Lagoon." (Even though the Draft EIR/EIS states the Keys are co-limited with P and N.) Furthermore, the only sediment data provided in Appendix E were from a couple of days in late July and September of 2019 and the nitrogen sampled is only for TKN (total kjeldahl nitrogen). Why wasn't total nitrogen sampled?
- Appendix F concludes "The sediment TP contents found in the three lagoons do not appear to be particularly enriched from anthropogenic sources" based on the comparison with the Homyak study's results, yet the Homyak study concluded that the P levels in these lakes was from atmospheric sources.
- A study entitled Evidence for nutrient enrichment of high-elevation lakes in the Sierra Nevada, California (Sickman et al. 2003) states "lakes throughout the Sierra Nevada are experiencing measurable eutrophication in response to the atmospheric deposition of nutrients."
- Another key difference is that the Keys are co-limited by phosphorus and nitrogen, according to the Draft EIR/EIS, whereas the lakes in the Homyak study are phosphorus limited.

Response to Comment WQ-16: The reference to the Homyak et al. (2014) study of Sierra Nevada lakes, both in the workshop presentation and in Section 3.3.4 of the DEIR/DEIS was

specific to nutrient concentrations in bottom sediments. As stated, the average concentration in the 50 lakes was 1,450 mg/kg, a value higher than average concentrations found in samples from the West Lagoon or Lake Tallac. The quoted statement from the beginning of Appendix F was comparing lagoon water concentrations to WQOs. The water concentrations indicated nutrient enrichment, but the Homyak reference was provided for regional context and indicated that sediment phosphorus concentrations were not particularly elevated. You will not find in the DEIR/DEIS a broad assertion that nutrient levels in the Keys are no different than other Sierra lakes. Estimates of nutrient loading are presented in Appendix F and illustrated with pie charts. Due to the abundant SAV in the Tahoe Keys Lagoon, the primary route of P delivery could be first from sediments to SAV and then into the water column upon SAV senescence. The sediment P flux estimates are thus one of two ways through which anthropogenic P enrichment of sediments could impact the water column – the other mechanism, likely the greater one, is the movement of P into SAV and then into the water column. Both are quantified in ESA's model. Concerns that the loading model could underestimate P fluxes from the sediments directly into the water column should be balanced by considering that the loading model also estimating the P flux from decomposing SAV into the water column. Regarding bullet points: (1) As indicated in Table 15 of Appendix E, all sediment total phosphorus samples were collected in July 2019. We did not speculate on unreported macrophyte conditions in the lakes sampled by Homyak but expect that the nutrient supply in the thick layer of organic sediments of the Tahoe Keys lagoons would not be substantially depleted by a partial season of macrophyte uptake. Homyak et al. (2014) do not mention SAV abundances or quantify SAV in the lakes that they studied. Therefore, the impact of SAV on sediment nutrient content is not well enough studied to determine if SAV in the Tahoe Keys Lagoon are able to reduce nutrient contents to "background" concentrations, or if the sediment nutrient content in the Tahoe Keys Lagoon is actually not as high as one might expect. (2) As stated in the introduction of Appendix E, the 2019 data collection was conducted following a QAPP that was reviewed by LWB staff. The QAPP includes details on the sediment surficial grab sampling methods used to collect and homogenize the upper approximately 10 cm of sediment using a Ponar sampler and is available upon request. The techniques used in Homyak et al. (2014) did find that only about 5% of the phosphorus was "freely exchangeable" however. To be conservative, we did not separate out freely exchangeable vs. recalcitrant forms of phosphorus when developing the P flux estimates, using the algorithms and assumptions in the sediment P-flux model from Nurnberg (1994). (3) All data reported in Appendix E were subject to a thorough data quality assurance review, including field measurements and laboratory sample analyses, and any problems with sample collection or exceedances of quality control limits were reported. The commenter is correct that Appendix E disclosed information about challenges in sediment sample collection and sample temperatures exceeding guidance. The holding temperature exceedance may have caused some change in the form of phosphorus (e.g., inorganic vs. organic); however, the TP result would not likely be affected. In data quality review the samples were assigned qualifiers that indicate the quantities should be regarded as estimates; however, the results were not rejected as unusable. While it was acknowledged that the lagoon sediment nutrient results from Station W4 were bias low due to dilution, somewhat higher average concentrations (i.e., average West Lagoon TP sediment concentration of 898 mg/kg if W4 result is not used instead of 790 mg/kg) would not change the conclusion that in the West Lagoon the internal loading from macrophyte decomposition is the source of the majority of phosphorus entering the lagoon water and the internal loading from sediments is minor by comparison. This conclusion supported the importance of conducting the aquatic weed control methods testing in a way that would minimize the release of nutrients from plant decomposition, and the need to have mitigation measures in place in the event of increased HABs occurrence at test sites

following treatments. (4) ESA's P-loading estimate from bottom sediments took into account the P-content of the sediments, the spatial extent of hypoxic bottom waters, and the temporal frequency of bottom water hypoxia. All three of these elements are included in the algorithms in Nurnberg (1994). While it is true that some portions of the Keys do not have much oxygen in bottom waters (such as Lake Tallac) that is not the case everywhere. The internal P load from sediments takes into account the P-content, the percent coverage of the three systems where bottom hypoxia was found, and an estimate of the amount of time that bottom water hypoxia was recorded, in the areas where it was found. The quote from Homyak's study may suggest a reason why the lagoon sediments do not appear to be behaving as phosphorus sinks accumulating high concentrations. (5) The difference between Total Nitrogen (TN) and Total Kjeldahl Nitrogen (TKN) is the amount of nitrate plus nitrite. In the porewaters of sediments (not the water column above those sediments) anoxic conditions result in the absence of nitrate and nitrite. Sediment nutrient content analysis is typically done via quantification of the TKN levels – except in well-aerated sediments, which are not found in the Tahoe Keys Lagoon. (6) and (7) Compared to other Sierra lakes, the West Lagoon and Lake Tallac did not appear to be particularly enriched, and atmospheric deposition was estimated to be a very small component of phosphorus loading to the lagoons. However, as Homyak et al. (2014) concluded that the sediment P content of those lakes had increased due to atmospheric deposition (presumably from human activities) those High Sierra Lakes should not be considered "pristine". (8) In the introduction portion of the paper by Homyak et al. (2014) it is stated that some of these lakes are expected to be nitrogen-limited, due to enrichment by phosphorus from atmospheric deposition. The High Sierra Lakes sampled by Homyak et al. (2014) may not be just phosphorus limited.

Comment WQ-17: Other key points with regard to nutrients in the Keys and the lack of full examination and disclosure in the Draft EIR/EIS include:

- Appendix F, referring to the Chang paper, insinuates that excess nitrogen in the Keys is from atmospheric sources. The atmosphere is not the source; nitrogen is input by stormwater from lawns and streets in the Keys' neighborhood, the stormwater from the City of South Lake Tahoe, by groundwater from Lake Tallac's nitrogen-rich waters, and by sediment inputs from the City of South Lake Tahoe's stormwater that is discharged into Lake Tallac. Inputs from these sources were not analyzed in the Draft EIR/EIS.
- The only place in the Draft EIR/EIS that addresses sediment nutrient levels, and then only in a speculative way, is on pages 3.3.4-45 and 46, and the only sediment sampling done was a few days in 2019.
- In a study titled Aluminum Control of Phosphorus Sorption by Lake Sediments (Kopacek et al. 2005): "Hypolimnetic P release occurs under reducing conditions that cause reductive dissolution of ferric hydroxide [Fe(OH)3]. This hypolimnetic P release may be naturally low or artificially reduced by sediment with naturally high or artificially elevated concentrations of aluminum hydroxide [Al(OH)3]. We present field and laboratory data for a common extraction analysis of sediments from 43 lakes differing in trophic status, pH regime, climate, and P loading. The results indicate that a simple sequential extraction of sediment may be a useful predictor of sediment's ability to release P. Sequential extractions of sediment P, Al, and Fe by water (H2O), bicarbonate–dithionite (BD), and NaOH (at 25°C) showed that negligible amounts of P would be released from lake sediments during hypolimnetic anoxia if either (1) the molar AlNaOH~25:FeBD ratio is >3

or (2) the molar AlNaOH~25:P(H2O+BD) ratio is >25. These ratios can be used as operational targets for estimation of sediment P release potential and Al dosing of P-rich sediment to prevent hypolimnetic P release under anoxic conditions." Due to the high aluminum and anoxic sediment layer at the Keys, one would expect that the release of P is lower than where aluminum levels are lower or closer to background levels of aluminum.

- Homyak's study also stated, "Aluminum too can limit increases in lake water P concentrations under reducing environments, and at relatively high Al concentrations, P released from the reduction of Fe can be bound to Al- hydroxides (Kopacek et al. 2001, 2005)." Were there any studies at the Keys that looked at sediment and water column phosphorus levels in relation to (i) the high aluminum content in the sediment at the Keys from alum being poured into the Keys and (ii) the anoxic environment prevalent at the Keys? This relationship between aluminum and P under the conditions present at the Keys should have been further examined before including AA2 in the Draft EIR/EIS. Failure to examine the relationship is an example of the lack of seriousness with which the Lead Agencies undertook this alternative.
- The product "Phoslock" was mentioned during one of the public meeting webinars though not cited anywhere in the Draft EIR/EIS or appendices. Pesticide regulations in the following states prohibit shipping Phoslock to Connecticut, Massachusetts, New Hampshire, New York, Maine, Rhode Island, and Vermont. If Phoslock were to be used to remove phosphorus, this product should have been disclosed in the environmental document.

Response to Comment WQ-17:

(1) The atmosphere is a source of nitrogen and phosphorus to the Tahoe Keys lagoons, with loading estimates provided on pages F-16 and F-17. TP and TN loading estimates to the lagoons are also provided in Appendix F for stormwater and landscape irrigation, groundwater, and other sources, and summarized in Figures 14 through 16. Nutrient source control efforts are underway at Tahoe Keys under their Nonpoint Source Plan as part of the Waste Discharge Requirements, and at the City of South Lake Tahoe under their NPDES general stormwater permit. These efforts are important to reducing algal blooms and the long-term supply of nutrients to the lagoons, but do not address the urgent need to control aquatic weeds. The DEIR/DEIS evaluates the potential environmental effects of testing aquatic weed control methods and includes evaluating nutrient releases from decomposing aquatic plants and the potential for nutrient loading from sediments disturbed by dredging or the discharge of treated dewatering effluent under Action Alternative 2.

(2) Information on sediment nutrient concentrations was presented in Appendix E and Appendix F, and summarized on pages 3.3.4-28, 3.3.4-32 and 3.3.4-56. Sediment nutrient concentrations are not expected to fluctuate frequently like lagoon water concentrations that vary from stratification, phytoplankton uptake, and other seasonal effects; therefore, sediment samples from each location were only collected once during 2019. The potential for project activities to cause release of nutrients from the sediment to the water column were addressed for LFA on pages 3.3.4-44 through 3.3.4-46, and for Action Alternative 2 on pages 3.3.4-58 and 3.3.4-59.

(3) Appendix E and Figures 3.3.4-11 through 3.3.4-13 show the seasonal anoxia that occurred in deeper waters of Lake Tallac and several stations in the West Lagoon.

Monthly water column sampling in shallow and deep lagoon waters throughout the period of anoxia in 2019 provided empirical data that reflected existing conditions for sediment nutrient release, including the presence of aluminum in the sediments. As noted on page 3.2-5, LWB beach sampling and analysis of eight beaches around Lake Tahoe compared to samples analyzed for the West Channel dredging and beach replenishment project found bulk sediment aluminum concentrations from Tahoe City Beach and El Dorado Beach similar to the Tahoe Keys results. See also Master Response EH-G1.

(4) Yes, monthly water samples from shallow and deep locations at 13 monitoring stations were collected and analyzed for total phosphorus with the existing conditions that included seasonal anoxia at some locations and elevated aluminum concentrations in some lagoon sediments.

(5) Phoslock is the brand name for a bentonite clay product containing the rare earth mineral lanthanum. Without using a brand name, the use of a bentonite clay product to remove phosphorus from the water column is presented under Issue WQ-6 in Section 3.3.4, as a mitigation option if HABs occurrence increases in test areas from aquatic weed decomposition. Additional information on the use of a phosphorus inactivation product (e.g., Phoslock) as a mitigation measure for HABs was added to Section 3.2.1 under Issue EH-6.

Comment WQ-18: Section 3.1.2.13, Water Quality, refers to a "very extensive baseline water quality data collection effort" conducted in the spring through fall of 2019. This section should have included a reference to Appendix E, the report of this study. The omission of this obvious reference significantly inconveniences readers.

Response to Comment WQ-18: A reference to Appendix E Baseline Water Quality in Tahoe Keys Lagoons, was provided in Section 3.1.2.13.

Comment WQ-19: Page 3.3.4-6 states: "The WDRs require a Nonpoint Source Water Quality Management Plan to address land-based direct sources not captured by the stormwater system." Are there fertilizer restrictions or bans in these WDRs? There should be references to the requirements of the WDRs.

Response to Comment WQ-19: A reference to the NTU (Nonpoint Source Water Quality Management Plan [NSWQMP]) will be inserted at the end of the quoted sentence. The CMT and alternatives do not propose any changes to the NSWQMP, so details of the plan were not provided in the DEIR/DEIS for aquatic weed management methods testing.

Comment WQ-20: Page 3.3.4-12 states "City of South Lake Tahoe 2016 baseline stormwater modeling estimated fine sediment particle (FSP) loads of 56,700 lb/yr to the West Lagoon and 162,000 lb/yr to Lake Tallac (Burke 2019). In Lake Tallac water turns a dark copper color due to dissolved organic material (e.g., tannins) originating from wetland soil." What are the nutrient loads of the 56,700 lb/yr load of FSP to the West Lagoon and the 162,000 lb/yr load of FSP to Lake Tallac? Again, the extremely important factor of ongoing nutrient loadings to the system is completely ignored in the Draft EIR/EIS. This should be corrected in the revised Draft EIR/EIS.

Response to Comment WQ-20: Existing information on nutrient loading to the lagoons was presented in Appendix F and summarized in Section 3.3.4 under Issues WQ-6 and WQ-7. The CMT and project alternatives would not change external nutrient loading to the lagoons; therefore, DEIR/DEIS evaluations focused on potential impacts on nutrient concentrations and environmental effects related to changes in internal nutrient cycling that could result from proposed activities.

Comment WQ-21: Page 3.3.4-26 states: "The primary external sources of phosphorus in Tahoe Keys were from stormwater/irrigation and groundwater inflow." This section and the next section on nitrogen are the only sections that acknowledge that sediment, stormwater, and groundwater are sources of nutrients, but the Draft EIR/EIS does not attempt to quantify those sources in any great detail. The next sentence after the one quoted above states "The primary internal source and the overall dominant source of phosphorus was from submerged aquatic vegetation decomposition." What was the original source of the phosphorus in the submerged aquatic vegetation? The Draft EIR/EIS concludes that the original source of the phosphorus was not anthropogenic because the average TP level in the 50 Sierra Nevada lakes of the Homyak et al., 2014, study is higher than the level in the Keys. If the sources of the TP in the Keys are non-anthropogenic, then what are those sources? The discussion does not answer this question. However, the next paragraph states: "Contributing sources of TP to the lagoons are both internal (e.g., aquatic plant decomposition, sediment flux) and external (e.g., stormwater/irrigation, groundwater inflow)." This implies that TP in groundwater and TP in the 56,700 lb/yr of nutrient-loaded fine sediment input to the West Lagoon and the 162,000 lb/yr of nutrient-loaded fine sediment input to Lake Tallac by the City of South Lake Tahoe's stormwater may be the source of these nutrients. However, no discussion is provided about these sources. The last sentence in this section does state "It should be noted that the TP from decomposing aquatic plants is initially from sediments, as the nutrient pools of sediments are the primary source for all the aquatic plant species encountered, other than coontail." Yet, the Draft EIR/EIS fails to provide details about the 60 years of accumulated nutrient-enriched fine sediment (at present 56,700lb/yr) coming from stormwater, and the nutrients input through groundwater from Lake Tallac. Instead, the Draft EIR/EIS claims that the sources of the nutrients are non-anthropogenic. The only sediment data provided in Appendix E were collected on a couple of days in late July and September 2019, and the samples were only analyzed for TKN (total Kjeldahl nitrogen). Why weren't the samples analyzed for total nitrogen? The discussion of the sources of nutrient inputs to the Keys in the Draft EIR/EIS is so lacking in detail that it is extremely inadequate. This inadequacy must be remedied in a revised Draft EIR/EIS.

Response to Comment WQ-21: The quoted sentences were edited to clarify they address phosphorus in the water column. The source of phosphorus in submerged aquatic vegetation is lagoon sediments. The DEIR/DEIS stated that the sediment TP concentrations were not particularly high and less than the average reported from 50 Sierra lakes by Homyak et al. (2014), but did not make any conclusion that the original source was not anthropogenic. And while Appendix F and the statements quoted from Section 3.2 describe existing information on nutrient loading to lagoon waters, the DEIR/DEIS did not speculate on the relative contribution of different sources to TP in the sediment. Sources of TP in the sediment likely include decomposition of aquatic plants and other biota, settling of particulates from the water column, adsorption of phosphorus from groundwater, and phosphorus present in wetland soils when the lagoons were constructed. Understanding the relative contribution from these sources of nutrients in the sediment is not necessary to evaluating potential environmental impacts from

aquatic weed control activities proposed in the CMT or project alternatives. The difference between Total Nitrogen (TN) and Total Kjeldahl Nitrogen (TKN) is the amount of nitrate plus nitrite. In the porewaters of sediments (not necessarily in the water column above those sediments) anoxic conditions result in the absence of nitrate and nitrite. Sediment nutrient content analysis is typically done via quantification of the TKN levels – except in well-aerated sediments, which are not found in the Tahoe Keys Lagoon.

Comment WQ-22: The pie charts on page 3.3.4-30 show zero or miniscule sediment flux of TP for both the Main Lagoon and Lake Tallac, yet 79% and 41.6% sediment flux, respectively, from SAV decomposition. Only in the one little sentence quoted above ("It should be noted that the TP from decomposing aquatic plants is initially from sediments, as the nutrient pools of sediments are the primary source for all the aquatic plant species encountered, other than coontail.") is there any admission that the source is the sediments, which, again, have accumulated 60 years of nutrient inputs from the surrounding communities.

Response to Comment WQ-22: The pie charts show nutrient loading to lagoon waters. The nutrients from SAV decomposition are taken by the plants from lagoon sediments. See response WQ-21 regarding the sources of nutrients in the lagoon sediments.

Comment WQ-23: This comment and the next also apply to the discussion of TN sources on pages 3.3.4-29 and 3.3.4-32. Page 3.3.4-35: The discussion of changes in dissolved oxygen (DO) concentrations refers to the vertical distribution of DO, particularly during the day when surface waters are higher in DO than the anoxic layer near the bottom. The discussion also mentions the numerous studies of the rapid decay of aquatic plants killed by herbicides causing increases in biological oxygen demand (BOD) and decreases in DO. This discussion further states "Despite the research on the effects of plant decay on lake deoxygenation, there are few published studies that specifically evaluate pre- and post-treatment DO measurements, and none where conditions were similar to those found in the Tahoe Keys lagoons with the same plant species and proposed aquatic herbicides." Despite the lack of relevant studies of pre- and post-treatment DO measurements, the Draft EIR/EIS concludes that the impact of herbicide treatments on DO is "less than significant impact" because the herbicides will be applied in the spring. However, data from spring-time macrophyte studies relevant to verifying that this mitigation measure would be sufficient are not referenced. A survey on April 20, 2018 is mentioned later, but the results of this survey are not in the Appendices or the website resources. The area to which the herbicides would be applied is asserted to be "relatively small" and therefore the impacts will be less than significant. The areas to which would be applied is 16.7 acres, about 730,000 square feet. This is not exactly a "small area," particularly if DO concentrations drop so significantly that cyanobacteria blooms occur. Without relevant data available on how much DO levels are expected to decrease and how much BOD is expected to increase, the impacts cannot be concluded to be less than significant.

Response to Comment WQ-23: The evaluation of DO effects from herbicide testing (Issue WQ-5 in Section 3.3.4) concludes less than significant effects based on treatment of a relatively small portion of the lagoons (less than 13% of the West Lagoon and approximately 9% of Lake Tallac), treating the aquatic weeds when they are small and have only a small fraction of the biomass observed later in the growing season (see response CYB-17), and the deployment of aeration systems at test sites during plant decomposition as needed to offset the BOD and

improve current conditions of anoxia in the deeper lagoon waters. The potential for increased occurrence of HABs is evaluated as Issue EH-6 in Section 3.2.

Comment WQ-24: Page 3.3.4-37 and -38, under Issues WQ-6 and WQ-7, discusses the increased risk of TP and TN releases to the water column upon decomposition of the aquatic plants after herbicide treatment and concludes, based on the same assumptions as above for DO, that the impacts would less than significant because of the proposed spring- time treatment and "small area" to be treated. In addition to the same arguments as above (no evidence or basis for impacts being reduced and the size of the area is significantly large enough to cause HABs), repeated expectations that plant biomass and water temps will be low, therefore nutrient increases in the water after decomposition and HABs will be low, is not taking into consideration climate change and expectations of precipitation coming in the form of rain instead of snow, which could significantly affect these assumptions. In general, this Draft EIR/EIS makes a great deal of assumptions that are not substantiated or supported, diminishing the confidence of these assumptions.

Response to Comment WQ-24: See response WQ-23 regarding the small areas to be treated and the small amount of biomass decomposition in the spring compared to later in the growing season. While there would be some nutrient release at the test sites from plant decomposition in the late spring and early summer, the total nutrient release would be less than what would otherwise occur if the plants at the test sites reached full maturity and died back in the fall. The potential for increased occurrence of HABs is evaluated as Issue EH-6 in Section 3.2. The long-term effects of climate change on these evaluations of potential water quality effects are not expected to be different in 2022 when the herbicide tests are planned than they are now. If there is a low snowpack or warm spring weather that causes water temperatures to be warmer during the first year of CMT implementation, those conditions would likely result in the aquatic weeds reaching sufficient size for testing herbicides a little earlier in the spring (e.g., late May instead of early June).

Comment WQ-25: Issue WQ-6, on page 3.3.4-56, discusses the increases in total phosphorus concentrations and states "These sample concentrations may underestimate actual concentrations in West Lagoon sediments because some of the samples were diluted with site water during sample collection." This is first time in the numerous places in which this issue is discussed that these sampling discrepancies and errors have been mentioned. Regarding the average of the 50 Sierra Nevada lakes studied by Homyak et al (2014), see previous comments regarding the invalidity of this comparison.

Response to Comment WQ-25: As footnoted in Table 3.3.4-5 and Table 15 in Appendix E, in the West Lagoon it was only samples from station W4 that were bias low due to sediment samples being diluted with site water. Excluding that one TP result from W4, the average TP concentration in West Lagoon sediment samples was 898 mg/kg instead of 790 mg/kg with W4 included, still less than the 1,450 mg/kg average reported for 50 Sierra lakes by Homyak et al. (2014). See response WQ-16.

Comment WQ-26: Issue WQ-2, on page 3.3.4-56, discusses the mechanisms that could cause turbidity during suction dredging. Only one of the marina dredging projects on the California side of Lake Tahoe between 2005 and 2017 proposed to use suction dredging, North Tahoe Marina,

which has extremely sandy substrate unsuitable for clamshell dredging. The marina owner was required to discharge the water after settling to an upland location and prohibited from discharging back to the Lake. The substrates of other marinas in the Lake were shown to not be suitable for suction dredging because of the muck and fine sediment in the substrate. The other reason suction dredging was never chosen was the excessively large volumes of sediment- laden water that it would produce, the refusal of sanitary sewer systems to accept the water/sediment mixture, and the standards for treated water discharged back to the Lake. Dredging of Keys lagoons would produce much larger volumes of water. Therefore, the dredging alternative is unrealistic at best, both from a cost basis and disposal basis, as stated in previous comments.

Response to Comment WQ-26: The points in this comment are discussed in Section 2.5. It is correct that clamshell dredging would be difficult in Tahoe Keys lagoons because the material is predominantly fine sands and organic muck with a high water content. Therefore the DEIR/DEIS indicates: " Suction dredging was preferred for testing over clamshell dredging, using barge- or shore-based excavators, or other methods because of its ability to (1) reduce cross-contamination of already dredged areas, and (2) remove dredged material within a closed delivery system." The commenter also correctly identifies the greatest challenge with suction dredging, which is treatment and disposal of large volumes of sediment-laden water. Disposal of treated dewatering effluent to the sanitary sewer system could only be done under conditions of approval from the South Tahoe Public Utility District Board. Alternatively, the effluent would have to be treated to meet water quality limits for turbidity and aluminum before it could be discharged to Lake Tallac, under permit conditions specified by the LWB, TRPA, and U.S. Army Corps of Engineers.

Comment WQ-28: The discussion of issue WQ-2 further states “Performance specifications for sand or fine gravel used for substrate replacement would require testing prior to placement to ensure that the material did not contain excessive amounts of fine particles.” In fact, very strict limits on the amount of “fines” allowed in the replacement sand would be required. Compliance with these limits would require numerous sieve analyses of the sand to be used for substrate replacement.

Response to Comment WQ-28: Section 2.5 describes a three-step process for physical separation of substrate replacement material from dredge spoils that would include a shaker tank, cyclone, and vibrating screens. Permit conditions would likely require batch testing for substrate replacement material compliance with limits on fines, before the material could be returned to dredged test sites in the West Lagoon. The contractor would need to propose materials testing methods to be reviewed and approved as part of permit conditions. This permitting process has been used at the El Dorado beach replacement project and other projects at Lake Tahoe.

Comment WQ-29: Page 3.3.4-57 concludes “the improvement in water clarity in dredged areas is unlikely to last more than one or two seasons before fine sediments and turbidity are transported in from adjacent areas. The relatively small amount of fine organic sediment removed during the suction dredging test is not expected to have a noticeable long-term effect on reducing turbidity and improving water clarity in the West Lagoon as a whole. Therefore, the potential beneficial long-term effect of reducing future turbidity by removal of fine organic sediments in test areas and replacing them with coarser grained sediment would be less than significant” (emphasis added) This conclusion reaffirms our earlier comments that the dredging,

disposal and replacement alternative would result eventually in the same conditions that created the problem of weeds in the first place.

Response to Comment WQ-29: The suction dredging and substrate replacement would be followed by testing Group B methods to see if they were effective in maintaining the reduction in aquatic weeds at dredged test sites. Implementation of Group B methods would target remaining aquatic weeds but would not prevent fine sediments from moving back into test sites.

Comment WQ-30: Note on reporting of statistical analyses: Statistical analyses of nutrient limitation were performed. The results of these analyses are summarized on page F-2: "To further investigate the issue of nutrient limitation, the waters of the Marina Lagoon, the Main Lagoon and Lake Tallac were all examined by comparing concentrations of chlorophyll-a (as a potential statistically significant dependent variable) against both TN and TP, as independent variables. In all cases, the data sets failed tests for normality and/or homogeneity of variance. Consequently, non- parametric statistical analyses were performed, using both Pearson's and Spearman's tests. Where a line and equation are shown in Figures 1 to 6, there is a mathematical relationship between a nutrient and chlorophyll-a, derived from linear regression, but only for those data sets where statistical significance ($p < 0.05$) was determined using non-parametric analyses." This summary is extremely incomplete and inadequate. It does not state why testing for normality and homogeneity of variance were considered to be appropriate, which tests were performed, and the results of these tests.

Response to Comment WQ-30: The use of parametric statistical analyses is dependent on the examined data sets meeting the assumptions of normality of data and homoscedasticity (homogeneity of variance). It is standard statistical best practices for testing for both of these assumptions, when trying to determine if there are statistically significant relationships between two variables that may potentially vary together in a meaningful manner. As stated, if the data sets failed either normality or homogeneity of variance assumptions, then non-parametric statistical tests were used. Non-parametric statistical tests such as Pearson's and Spearman's tests are based on a comparison of the patterns of ranks of data – normality and homoscedasticity are not required. The Appendix F authors have published several times in peer-reviewed, scientific journals using a similar approach to using statistical techniques looking for relationships between potentially linked water quality parameters.

Comment WQ-31: Comments on Appendix F: The modeling of nutrient loading and cycling in the Tahoe Keys lagoons concludes that (1) SAV decomposition accounts for 60% to 80% of the nutrient loadings in the Marina Lagoon and Main Lagoon and about 40% of the nutrient loadings in Lake Tallac and (2) the nutrients in the sediment annually fuel the growth of SAV and are replenished by the release of nutrients from decomposed SAV into the water. The report of the modeling also concludes "Clearly, the Tahoe Keys should be considered 'enriched' with nutrients." These conclusions do not mention the past and continuing contribution of stormwater inputs of nutrients to the creation and sustaining of the current enrichment of the lagoons. The lagoons have been receiving and accumulating stormwater inputs of nutrients (TP and TN) from neighborhoods of South Lake Tahoe in their watershed for 60 years. Tahoe Keys residences are surrounded by vibrant green lawns on the banks of the lagoons which contribute significantly to the nutrient loading.

Response to Comment WQ-31: The conclusions in Appendix F, Tahoe Keys Nutrient Loading and Nutrient Cycling Conceptual Model, were focused on information to inform the evaluation of potential water quality effects of aquatic weed control methods testing. External sources of nutrient loading to the lagoons would not be affected by testing aquatic weed control methods. Nutrient loading to lagoon waters from stormwater and landscape irrigation was found to be over half the TP and nearly one-third of the TN in Lake Tallac, but only about 13% of TP and 7 % of TN loading in the West Lagoon. And although this information estimates that stormwater and landscape irrigation are the largest external sources of TP to the lagoons, it also indicates that aquatic weed infestations in the West Lagoon could be sustained by internal nutrient cycling even if stormwater and landscape irrigation sources were eliminated entirely.

Comment WQ-32: Appendix F: Applying herbicides will do nothing to ameliorate the enrichment and will actually exacerbate the problem by killing the weeds quickly and releasing nutrients rapidly into the water column. The rapid release of nutrients creates a very high risk of harmful algal blooms, including deadly cyanobacteria (blue-green algae) blooms.

Response to Comment WQ-32: It is correct that testing herbicides will not reduce nutrient enrichment, but could result in a short-term increase in nutrient concentrations during aquatic weed decomposition. The potential for short-term increases in nutrient concentrations is evaluated as Issues WQ-6 and WQ-7 in Section 3.3.4, and the potential for aquatic herbicide tests and other aquatic weed control methods to increase the occurrence of HABs was evaluated as Issue EH-6 in Section 3.2 of the DEIR/DEIS.

Comment WQ-33: Appendix F: The report bases its conclusions about the loading of TP into the Main Lagoon and Lake Tallac from sediment on only one month of data, collected in July 2019. The report states: “In the Main Lagoon and Lake Tallac, sediment TP contents are low enough that the sediments in those two locations are not expected to be a net source of TP into the water column.” However, the report subsequently states: “It should also be taken into account that sediment samples were collected in July of 2019, prior to the system- wide senescence of SAV that occurs in the fall. Sediment TP values could be higher after SAV senescence than was found during the season of active SAV growth.” (emphasis added) Conclusions about TP loading from sediment based on data collected when SAV growth is at its annual maximum and TP levels in the sediments are at a minimum are almost certainly incorrect.

Response to Comment WQ-33: See responses WQ-16 and -17 regarding the Appendix F modeling of nutrient loading to and nutrient cycling within the lagoons. If SAV did in fact reduce TP content of sediments, it would then be captured as a mechanism of P flux via the SAV decomposition route.

Comment WQ-34: Appendix F: Another aspect of nutrient loadings that Appendix F doesn’t analyze and discuss thoroughly enough is the differences in loadings of TN from groundwater between the Marina lagoon (0%) and the Main Lagoon (15.9%) and Lake Tallac (21.7%). These differences can be partially attributed to the much larger area of the Lake Tallac watershed (600 acres), compared to the 68-acre Marina lagoon watershed and the 210 acre Main Lagoon watershed. However, the negligible groundwater loading of TN into the Marina Lagoon, compared to the nearly 16% TN groundwater loading to the Main Lagoon, indicates that Lake Tallac and Pope Marsh (which receives overflows from Lake Tallac) are contributing TN from South Lake

Tahoe stormwater to the Main Lagoon. These groundwater loadings, like the direct loadings from stormwater, have been accumulating for 60 years and have not been thoroughly discussed or examined.

Response to Comment WQ-34: Surface and groundwater hydrologic connections are evaluated at length in Section 3.3.3.3, and modeling results were used to support the estimates of groundwater nutrient loading in Appendix F. Groundwater exchange occurs between Lake Tallac and the Main Lagoon when water levels differ enough to drive a pressure gradient under Venice Drive. This same section presents results of modeling baseline conditions in 2017 and 2019 with a finding that groundwater flows into the West Lagoon are expected to enter from Pope Marsh to the west and Lake Tallac to the south. The reasonableness of model results was evaluated using data from continuous water level monitoring in each water body.

Comment WQ-35: Appendix F: Flows from Lake Tallac into the Main Lagoon through the gate under Venice Drive may also be adding nutrients to the Main Lagoon. This possible source of Main Lagoon nutrients, which entity controls and operates it, and the magnitude of flows and nutrient contributions through it are not discussed in the report.

Response to Comment WQ-35: The text was modified in the FEIR/FEIS to indicate that there is a single gate structure between Lake Tallac and West Lagoon that is owned and operated by TKPOA. The gate, Dam Number 4469-0, is regulated by the California Department of Water Resources, Division of Safety of Dams. At the request of the Division of Safety of Dams, the gate was tested one day in the summer of 2020 to verify that it was still functional, but it has not been operated recently to release water to the West Lagoon. Therefore, the gate is not a substantive source of surface water and nutrients entering the West Lagoon from Lake Tallac.

Comment WQ-36: Appendix F: The report also concludes that "an absence of potentially relevant information was found in terms of the effectiveness of LFA as an SAV management technique form the literature reviewed for this report." The results of LFA experiments at Lake Tahoe are especially relevant to the effectiveness of LFA in the Tahoe Keys. An LFA experiment at Ski Run Marina began in August 2018, and post-treatment monitoring data were submitted to the Lahontan Regional Water Quality Control Board in the summer of 2019. An evaluation of these especially relevant LFA treatment results would have been a useful addition to the report.

Response to Comment WQ-36: Section 2.3.4 discusses the small LFA pilot test at Ski Run Marina documented by Singer (2019), as well as the 6-acre LFA test initiated by TKPOA in the West Lagoon in April 2019. While results of these pilot projects to date were not considered sufficient to demonstrate effectiveness in meeting the objectives established for Group A aquatic weed control methods in this project, there were enough encouraging results that LFA was included in the CMT for further testing.

WATER SUPPLY

Comment WS-1: Transmitted PDF pages with embedded comments, identifying that data shown for Glenbrook General Improvement District should be corrected to reflect that they are for Kingsbury GID.

Response to Comment WS-1: Thank you for providing these corrections. The FEIR/FEIS will be updated to reflect the correct information.

Comment WS-2: TWSA acknowledges the in-depth investigation of 'fate and transport' concerns for the surface water treatment operators with emphasis on understanding potential impacts to the filtration exempt water purveyors. These concerns were identified in Issues UT- 1 (Utilities) and EH 3 (Environmental Health). The detailed analysis on Protection of Filtration Exemption Status is discussed in the Built/Human Environment section (pgs. 3.4-10 to 14). * Excerpts are referenced at end of this letter.

The overall evaluation determined in the DEIR/DEIS is that the Lake Tahoe drinking water intakes are not at risk, due the containment measures proposed, monitoring and detection program outlined, and in the end, the volume of water in Lake Tahoe between the treatment areas and the intakes. The TWSA Board is not totally comfortable with the determination that, in the end, dilution will protect the lake source intakes. Yes, 39 trillion gallons of water provides an excellent dilution safety factor. However, there are key pieces of key information in the pending anti-degradation analysis that must be co-evaluated.

Response to Comment WS-2: The conclusion and determination of whether any degradation would be consistent with the antidegradation policy does not need to be made at the time of the DEIR/DEIS in order for the public to have information to meaningfully comment on whether the project will create a significant effect to the environment. The DEIR/DEIS includes an evaluation of the potential impacts to the environment from the project, including an analysis on possible impacts to human health/source intakes, and a finding that those impacts will be less than significant. See Master Responses WS-G1 and AA-G1, and responses WQ-10, WQ-14, and ALT-39. The NPDES permit and antidegradation analysis and findings have been provided for public comment at https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/.

Comment WS-3: We still maintain some concerns about the potential failure of turbidity curtains to contain herbicides within the treatment sites. To provide additional protections at any potential herbicide site, we suggest the portable water treatment plant be prepared for the treatment sites (not just TK wells) in the mitigation and emergency response plan. The current contingency plan referenced in the DEIR, addresses potential issues at the drinking water wells, only. (Carbon Filtration Contingency EH-3f).

Emergency carbon-filter treatment of the water should be a 'ready-to-implement' mitigation for treatment site use, in the case of containment failure. Details are needed on how this equipment would be accessible and this mitigation performed. Powdered activated carbon for an emergency spill may be another option?

Response to Comment WS-3: Concentrations of herbicides that are lethal to target aquatic weeds are necessary within herbicide treatment test sites, and operating a water treatment plant to remove herbicides at the treatment sites would defeat the purpose of testing

their efficacy in killing target plant species. Pumping and treating water in the lagoons just outside the turbidity curtains would be infeasible and cause other impacts due to the enormous water volumes to be treated and may compromise effectiveness of the barriers. See also Master Response WS-G1.

Comment WS-4: Turning off wellheads and providing bottled water as a mitigation for potentially impacted TKPOA wellheads is not sustainable. This mitigation ignores the other household water needs for residents.

Response to Comment WS-4: See Master Response WS-G1.

Comment WS-5: DEIR pg. 3.2-5 – LPA is listed a filtration exempt; they are a filtering purveyor.

Response to Comment WS-5: The DEIR/DEIS, page 3.2-5, states that the nearest public drinking water intakes operating under a filtration exemption in Lake Tahoe are "near Lakeside Marina", not that LPA is filtration exempt. Kingsbury General Improvement District and Edgewood Water Company are both near Lakeside Marina.

Comment WS-6: The reference in the Draft EIR/EIS pgs. 3.14.12-13 to Glenbrook should be Kingsbury.

Response to Comment WS-6: Thank you for providing these corrections to Section 3.4.2.1. The FEIR/FEIS will be updated to reflect the correct information.

Comment WS-7: It does not appear that private water intake lines were identified or analyzed as part of the inventory or addressed in potential impacts. While we understand this process is experimental, we remain concerned about long term potential impacts.

Response to Comment WS-7: Contacts were made with local private water systems and with other knowledgeable sources, including TWSA, to ascertain the nearest locations of private intakes. However, responses to queries were not always received. A map showing the locations of intakes from Lake Tahoe is not published, in order to assure infrastructure security and protection. See Master Response WS-G1 for further discussion on why impacts to drinking water supplies was determined to be less that significant.

Comment WS-8: The Proposed Project may impact drinking water supplies. Herbicides may be drawn into nearby groundwaters from supply wells located in the Tahoe Keys. This is an unavoidable significant environmental impact that cannot be mitigated by the proposed mitigation measure of providing bottled water to residents. Table ES-1, under the Mitigation column for EH-3b, Protection of Drinking Water Supplies, states:

“contingency plans include shutting off the wells and distributing water to all users until residues are no longer detected in the samples.” If degradation of groundwater occurs, a significant environmental impact will have resulted and won’t be addressed or resolved by providing replacement water. The groundwater will be impacted whether it is pumped and supplied to humans or not. The draft EIR/EIS must identify this as a significant and unavoidable impact. The proposed mitigation measure does nothing to reduce or mitigate the lowered water quality in the

groundwater. CEQA requires a Statement of Overriding Consideration to allow the project to go forward acknowledging the temporary loss of drinking water supply.

Response to Comment WS-8: The commenter has provided no evidence of how herbicides could be drawn into groundwater. See Master Response WS-G1.

Comment WS-9: "Issue UT-1: Effects on Water Supply. Effects could occur if herbicide residues and degradants reached water supply intakes on Lake Tahoe, and led to the loss of filtration exemption for purveyors drawing from the lake. An impact could occur if turbidity increased in nearshore shallows near drinking water intakes as a result of the dieback and decay of aquatic weeds…Due to dilution, no detectable concentration of herbicides or degradants attributable to the test program would occur at drinking water intakes, and therefore no impact would occur and no mitigation is required. TKPOA has proposed contingency plans, including monitoring and alert systems to be implemented if necessary to remove herbicides and other chemicals to treat the potable water before distribution." This seems inconsistent and contradictory. Because of dilution, no impact from herbicides on drinking water supplies will occur. However, we have a plan to mitigate if impacts occur. It appears there is a potentially significant environmental impact from the Proposed Project and it should be identified that way. Perhaps the impacts only occur if there is a spill or improper application. This is still a potentially significant impact and should be disclosed that way in the draft EIR/EIS.

Response to Comment: See Master Response WS-G1 to clarify contingency measures to water supply impacts.

Comment WS-10: Section 3.1.2.11, Utilities, states that drinking water could be contaminated, but the IEC/IS found that the "surface water intakes are not located is[n] sufficient proximity to the Tahoe Keys lagoons to be affected." There are no references to the data and analyses supporting this conclusion about possible contamination of drinking water supplies drawn from Lake Tahoe by surface water intakes. The IEC/IS also concluded that Tahoe Keys drinking water wells would not be contaminated because rhodamine dye injected into lagoons in an earlier study was not detected in the wells. The Rhodamine WT Dye Study Report on the website (https://tahoekeysweeds.org/project-resources-maps/) did not include any results of this testing of Tahoe Keys drinking water wells, another instance of missing supporting data. An electrical failure in the Tahoe Keys drinking water system in late August 2020 required issuance of a "boil water" warning to Tahoe Keys residents. The revised Draft EIR/EIS must analyze and discuss (1) whether contamination of Tahoe Keys water supplies by herbicides would be detected if the Tahoe Keys water system failed during the CMT and (2) whether the proposed detection and mitigation of this contamination would be effective in the event of failure.

Response to Comment WS-10: See Master Response WS-G1.

OTHER

COST

Comment CST-1: Cost information is another key item missing for overall decision. There are no costs presented for any methods. Cost analysis is necessary to determine approach. We feel the cost for CEQADEIR/DEIS analysis should be heavily pro-rated towards the cost of herbicides.

Response to Comment CST-1: See Master Response CST-G1.

Comment CST-2: CEQA Guidelines state "[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly." § 15126.6(b). (emphasis added) Therefore, revision and recirculation of the Draft EIR/S are required by the absence of the required range of reasonable alternatives. CEQA Guideline § 15088.5(a)(3) requires recirculation when "A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it."

Response to Comment CST-2: See Master Responses CST-G1, ALT-G1, and PP-G1.

Comment CST-3: The costs of dredging are not discussed, analyzed, or estimated in the Draft EIR/EIS. Although we have asserted that Alternative 2 is not a viable alternative for environmental reasons, commenting on this omission is necessary. Including cost estimates in environmental documents is essential to transparent decisions by Agencies. Evidence from other lakes shows that dredging is the most expensive method of managing aquatic weeds. The additional costs of removing aluminum from the dredged sediments would no doubt increase costs so much that dredging would be economically infeasible.

Response to Comment CST-3: Note that the cost of implementation is more pertinent to the follow-on aquatic weeds management implementation project, which will be the subject of its own subsequent CEQA/TRPA review. For the test program cost is not a feasibility barrier.

Comment CST-4: The costs of all this are heavily weighted toward the benefit of a few (Keys' property owners) over the benefit of the many, yet the many (taxpayers) are being asked to pay for this proposal just so that the Keys' owners can boat to the Lake from their backyards. This is a shameful waste of taxpayer's money who would likely be much more willing to pay for protecting the Lake with a barrier and restoring the lagoons to marsh than using toxic herbicides or expensive dredging operations.

Response to Comment CST-4: Please refer to the Master Response CST-G1. With regard to barriers see response ALT-17.

Comment CST-5: Cost of dredging alternative: expensive. Are public to pay to preserve Keys boating? It would remove weeds. Result will be unnatural lagoons and weeds will just come back. Risks to aquatic life are too high. Complete restoration is better. AA1 is Environmentally Superior Alternative.

Response to Comment CST-5: See Master Responses CST-G1, ALT-G1, and RES-G1.

CUMULATIVE EFFECTS

Comment CUM-1: As noted in the Executive Summary, this EIR/EIS only analyzes the test of a variety of control methods, and another environmental analysis would be required for any future implementation of a full-scale aquatic weeds control program. If this is the case, future full-scale weeds control should be analyzed as a cumulative project.

Response to Comment CUM-1: Cumulative effects are discussed in Chapter 4 of the DEIR/DEIS. Long term aquatic weed management is included as a foreseeable future project in section 4.1.3 of the cumulative effects analysis.

CULTURAL RESOURCES

Comment CR-1: Under Section 3.4.5 (Cultural Resources), under Methods and Assumptions, is CR-1 an applicant proposed measure or Resource Protection Measure? It is unclear what it means to have this type of measure in the methods and assumptions section since it is almost written like a mitigation measure.

Response to Comment CR-1: 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. However, as discussed in on page 3.4-38, no impacts to cultural resources are expected from the project. As agreed by the Water Board, Section 4.1 describes the United Auburn Indian Community's preferred measures for the protection of cultural resources.

EDITORIAL

Comment ED-1: The Executive Summary should indicate the total acreage of the lagoon areas that would be treated. The Executive Summary could include information from Table 2-1 to give the reader a better idea of acreage involved for the Proposed Project and alternatives. Section ES 3.2 would be an appropriate section to add this information.

Response to Comment ED-1: The section to which you refer, ES 3.2, provides an overview of the Proposed Project. An overview of test programs (DEIR/DEIS section 2.3.1.2, pages 2-9 to 2-11) provides more detailed information on the size of treatment areas.

Comment ED-2: For Table 5-1, Alternatives Comparison, although this is helpful information, the comparison of impacts usually involves an identification if, for example Alternative 1 would have "reduced" or "increased" impacts in comparison to the Proposed Project. As is, the table only identifies if there are significant, unavoidable effects, growth-inducing effects, or irreversible/irretrievable effects; but there is no real comparison between the alternatives. The only thing made clear is that the No Action Alternative is the only one that has potentially significant. unavoidable effects. The table also has sections that are highlighted under the No Action Alternative/Potentially significant unavoidable effects continue for long term. It is unclear what the highlight means for that resource area.

Response to Comment ED-2: You are correct that, outside of the No Action Alternative, no significant unavoidable effects were identified for the Proposed Project (CMT) or Action Alternatives, after mitigation. Therefore, there is no comparison to be made of increased or reduced significance in relation to the Proposed Project. The increased effects of the No Action Alternative are clear in the statements of effects listed in Table 5-1 for that alternative.

Comment ED-3: Edits to Appendix E:

- Figure 8, page E-18, the legend needs to be fixed. Currently cannot tell which line/symbol is bottom and which represents surface location. The Y-axis units should indicate oC, and not just C.
- Pages E-18 and E-19, Figures 8 and 9 are poor quality reproductions. Is it possible to replace these figures with better quality/higher resolution figures?
- Top of page E-31, states that 90th percentile values exceed the 0.15 mg/L numerical water quality objective for total nitrogen, and that "10% of the samples from each location exceeded the criterion." The footnote to Table 13 indicates that because of the small number of samples at each depth, the 90th percentile value and the maximum are equivalent. Recommend that the text drop the statement that 10% of the samples exceeded the criterion.
- Page E-32, Figure 14. Recommend that the range of values for the y-axis be changed from 0 to 8 mg/L, to 0 to 2 mg/L, in order to better observe results.
- For Figures 17 and 18, recommend that the y-axis scale be changed from 0 to 8 mg/L to 0 to 2 mg/L in order to better present the results. If needed, add information to the legend regarding 8.0 mg/L. The quality of both figures is poor. Recommend replace them with better quality figure.
- Figure 19, page E-39. Recommend that two sets of figures be prepared. For locations E1, E2, E3 W4, W5 W6, W7 and W8 change the y-axis scale from 0.00 to 0.30 mg/L to 0.00 to 0.10 mg/L to improve presentation of the results. For the remaining figures leave the y- axis range as currently indicated. Add text to the discussion to alert the reader to the differences in the y-axis scales in the two sets of figures. Figure 23, page E-50. Recommend that the legend be fixed, cannot tell which are bottom and which are surface location results.
- Figure 24, page E-51. Recommend replace poor quality figure with one of better quality.
- Figure 25, page E-56. Recommend that the legend be fixed, cannot tell which are bottom and which are surface location results. Figure 26, page E-57. Recommend that the legend be fixed, cannot tell which are bottom and which are surface location results.
- Page E-68. The discussion of pH figures includes parenthetical phrase "became more acidic" with increasing water depth. With the exception of the Lake Tallac locations, few recorded results at the various locations would be considered acidic…but in general the pH at the various lagoon locations moved towards a neutral pH with increasing depth. Recommend deleting the phrase "became more acidic" and replace it with "decreased towards a neutral pH." Also, the figures appear to indicate significant seasonal differences in pH that could be included in the discussion.
- Figure 30, page E-72. Need to fix the legend.

– Figure 31, page E-73. Replace figure with better quality figure.

Response to Comment ED-3: Although the Appendix E figures were all clearly legible in the MS Word file, some colors appeared smeared or faded when viewing the file linked to the project website for public review. This is an artifact of the pdf process itself. Attempts to re-pdf the figure did not improve the quality.

Note that Figures 8 and 30 show 96 data points per day shown over 6 months of diel fluctuation, and the wide lines show the full range of values each day of measurements. The Y-axis scale on figures have not been changed because (1) Figures 14 and 17 had a value of 8 mg/L for site T-13 and we want to show all stations on these figures and Figure 18 with the same scale for consistency, (2) we want to show all the sites on Figure 19 with the same scale for the Y-axis to provide a complete picture of all sites together, and (3) data tables are provided so a reader can look at individual values while the figures are used to visualize the big picture of all results together. Suggested text edits have been made in the FEIR/FEIS.

Comment ED-4: On page 2-6, under "a."there appears to be a leftover agency comment on the Administrative Draft that inadvertently was not removed: "The only discussion on infeasibility of an alternative that I see in this chapter relates to dry dredging. How was Lahontan's antidegradation analysis and water quality objectives used to consider the "infeasibility" of an alternative? Many of our approved permits and the underlying discharge associated with them have the potential to exceed a water quality objective (that is why we include effluent limitations in the permit). I don't think we exclude those as being infeasible. I'm supposing that alternatives that were certain to create long term degradation and violation of objectives were not discussed. This may or may not need to be rewritten. I would first like to understand how our Basin Plan was used to determine infeasibility."

Response to Comment ED-4: Thank you for drawing our attention to these editorial concerns. The FEIR/FEIS will correct all identified editorial errors and improvements.

Comment ED-5: Earlier the document defines CMT as Control Methods Test; however, in the Project Description it is defined as a Comprehensive Methods Test. Make sure this is clarified and consistent throughout document.

Response to Comment ED-5: Thank you for drawing our attention to these editorial concerns. The FEIR/FEIS will correct all identified editorial errors and improvements.

Comment ED-6: Page 2-22, second paragraph, last sentence is missing the words "cause of the" after "the" and before "decrease."

Response to Comment ED-6: Thank you for drawing our attention to these editorial concerns. The FEIR/FEIS will correct all identified editorial errors and improvements.

GREENHOUSE GASES

Comment GHG-1: I am the mother of a one year old baby, and I am terrified for her future if we do not take immediate and drastic action to protect the environment. Many plant species live within lakes and help to store carbon, which combats global warming.

Response to Comment GHG-1: Potential impacts to greenhouse gases are discussed in Section 3.3.2 of the DEIR/DEIS. The Proposed Project will have less than significant impacts to greenhouse gas emissions. Also see Master Responses ALT-G1 and GEN-G1.

Comment GHG-2: Is the EIR/EIS compliant with the change in AB32 GHG effective July 1, 2020?

Response to Comment GHG-2: The deadline under AB 32 for achieving the 2020 GHG emissions cap is December 31, 2020. In order to address California's GHG reduction goal for 2030, the GHG evaluation in the DEIR/DEIS compared GHG emissions from project alternatives to an adjusted significance threshold. The current threshold of 1,100 $MTCO_2e/yr$, adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), was adjusted downward by 40% to 660 $MTCO_2e/yr$. The SMAQMD threshold was adopted in consideration of applicable plans, policies, and regulations, which includes AB32. Emissions from activities associated with Action Alternative 2, the only alternative that has the potential to generate substantive GHG emissions, are estimated to be 200.8 $MTCO_2e/yr$.

HYDROLOGY

Comment HYD-1: Under the assumptions listed on page 3.3.3-1, the first assumption states "There is no surface water connection between Lake Tallac and the West Lagoon except on rare occasions when a gate is lowered to relieve localized flooding upgradient from Lake Tallac." How often does this occur? Who controls the gate? How many gates are there between Lake Tallac and the lagoons? In order to substantiate this assumption, these details should have been provided in the Draft EIR/EIS and must be provided in the revised Draft EIR/EIS.

Response to Comment HYD-1: The DEIR/DEIS was modified to indicate that there is a single gate structure between Lake Tallac and West Lagoon that is owned and operated by TKPOA. The gate, Dam Number 4469-0, is regulated by the California Department of Water Resources, Division of Safety of Dams. At the request of the Division of Safety of Dams, the gate was tested one day in the summer of 2020 to verify that it was still functional, but it has not been operated recently to release water to the West Lagoon. Therefore, the gate is not a substantive source of surface water and nutrients entering the West Lagoon from Lake Tallac.

Comment HYD-2: Assumption #3 on page 3.3.3-1 states "Lake Tallac drains to Pope Marsh through a gate, and during high water levels Pope Marsh overtops Pope Beach and drains into Lake Tahoe." Pope Marsh is therefore a WOUS, as already noted in these comments. Lake Tallac, hydrologically connected to Lake Tahoe through Pope Marsh, is also a WOUS. Therefore, Lake Tallac should be treated no differently than Lake Tahoe or the Tahoe Keys lagoons in this document; they are all hydrologically connected. What evidence supports the assertion that Lake Tallac is a Tier II water, instead of a Tier III water?

Response to Comment HYD-2: Lake Tallac flows out into Pope Marsh. The direct hydrologic connection to Lake Tahoe is seldom present at the spillway from Pope Marsh at the west edge of the Tahoe Keys. The spillway is typically only breached when flooding occurs on Jameson Beach Road, so there is typically no direct surface water connection between Lake Tallac and Lake Tahoe and the receiving waters for Lake Tallac would more accurately be designated as Pope Marsh. In contrast, the West Lagoon and East Lagoon have direct hydrologic connections through connecting channels to Lake Tahoe. The Basin Plan notes that there are

only two ONRWs in the Lahontan Region, Mono Lake and Lake Tahoe. While the possibility of discharge to Lake Tallac reaching Lake Tahoe (ONRW) is unlikely because Pope Marsh is known to directly flow to Lake Tahoe only during periods of high inflow to Pope Marsh, in an abundance of caution, discharges into Lake Tallac are also treated as possible discharges into Tier III waters in the antidegradation analysis included in the NPDES permit.

Comment HYD-3: The water budget section under Hydrology (3.3.3) was very well done. This section is the most substantiated and well-supported section in this document. The rest of this Draft EIR/EIS should be as well prepared.

Response to Comment HYD-3: Thank you for your appreciative comment on this section.

NOISE

Comment NOI-1: Under Section 3.4.4 Noise, for Alternative 2, the noise levels of the equipment that is used for dredging activities is not mentioned or quantified, only that it would be similar to ambient noise levels. Without understanding what the ambient noise levels are and what the noise of the dredging equipment would be, the statement is not substantiated that noise levels at the nearest sensitive receptors would be less than significant with mitigation.

Response to Comment NOI-1: Section 3.4.4.3 references a quantitative benchmark, stating "Most equipment used in dredging and dewatering could be considered typical of similar construction equipment, creating a maximum sound intensity of approximately 85 dB (FHWA 2006). Actual equipment noise will likely be less, and the sources will be non-stationary and intermittent."

More fundamentally, as stated in 3.4.4.3, "Generally, the noise generated by dredging and dewatering equipment for the project would be similar to ambient daytime noise in an active marina, typical of the project area." Noise from the barge and dredge will likely be similar to that created by existing boat traffic and should be treated like any other "construction" noise, which is exempt as provided in TRPA Code 68.9 Exemptions to Noise Limitations.

RECREATION

Comment REC-1: Lake Tahoe's clarity and beauty is key to tourism in our region and having this jewel of the Sierras remain a healthy and attractive vacation option will be even more important as we move (hopefully) out of the tourism slowdown due to the coronavirus.

Response to Comment REC-1: See Master Response GEN-G1.

Comment REC-2: The health of the area and lake is more important than a convenience to boaters.

Response to Comment REC-2: See Master Response GEN-G1.

Comment REC-3: I have friends who have visited there and said the lake is absolutely beautiful. It needs to be protected from pollution. This is necessary especially since that part of the country is so scarce of water recreation resources.

Response to Comment REC-3: See Master Response GEN-G1.

Comment REC-4: The Lead Agencies' prioritization of recreational boating over the health of Lake Tahoe is contrary to these Agencies' purposes and missions.

Response to Comment REC-4: See Master Response GEN-G1.

SOCIOECONOMICS

Comment SOC-1: 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) The DRINK TAHOE TAP® brand has been under development for more than 10 years regionally and currently receives broad community support. The introduction of herbicides may have a strong impact on consumer confidence in the tap water, despite the precautions and mitigations. Tahoe Tap is an award winning, very high quality tap water. We are under the assumption that this question is being evaluated as part of anti-degradation analysis? The international brand, Evian Water, was recently negatively impacted by the detection of an EU banned fungicide (chlorothalonil) in their protected spring source.

Response to Comment SOC-1: While socioeconomic impacts are not required to be analyzed in the environmental analysis, see Master Response WS-G1 and WQ-G1 on why the project is expected to lead to a less than significant impact on water supply and drinking sources. As such, impacts to the Tahoe Tap brand are not anticipated.

SIGNIFICANT EFFECTS

Comment SIG-1: We disagree with the general conclusion in the EIR/EIS that "all effects for the Proposed Project and Action Alternatives have been reduced to less than significance". The Proposed Project, Action Alternatives, and the No Action Alternative all could have potentially significant effects to water quality issues (water temperature, turbidity, dispersal of aquatic fragments, changes in pH, dissolved oxygen, total phosphorus, and total nitrogen concentrations) and aquatic community stability (species diversity, species dominance, seasonal succession). The limited herbicide spot-treatment usage as part of the Proposed Project poses substantial localized risks to human health and environment as earlier detailed.

Response to Comment SIG-1: Section 3.3.4 identified some of the impacts to water quality as being potentially significant effects and provided analyses and mitigation measures to support the DEIR/DEIS conclusions of less than significant effects on water quality. Similarly, Section 3.2 found that risks to human health and the environment from proposed herbicide testing were either less than significant or reduced to less than significant after mitigation. The disagreement regarding conclusions is noted. Also see Master Responses ALT-G2 and HER-G1.

Comment SIG-2: The project document does an excellent job of documenting the detrimental effects of aquatic invasive species re: the ecological function of Lake Tahoe, including water quality and habitat critical for native species, compared to the short-term effects of herbicide applications. In addition, the document does an excellent job of describing the numerous other types of control activities that have been attempted in the past to reduce and control AIP in Lake Tahoe. The document is proficient in setting the stage for considering herbicides as a potential effective action alternative, in combination with other physical and mechanical methods of control.

Response to Comment SIG-2: Thank you for your comment. All comments received will be taken into consideration in making final determinations regarding the potentially significant effects of the project and alternatives in the FEIR/FEIS.

Comment SIG-3: It is encouraging to see the DEIR/S conclude that all of the potentially significant impacts of the "Proposed Project" are fully mitigated. The significant environmental impacts resulting from the "No Action" Alternative provide a sense of urgency and compelling basis for acting soon.

The DEIR/S identifies significant impacts to Lake Tahoe will occur if no action is taken, other than continuing current ineffective methods of control and management. The No Action Alternative would have potentially significant, unavoidable effects on all water quality issues (temperature, turbidity, dispersal of aquatic plant fragments, pH, dissolved oxygen, and phosphorus and nitrogen concentrations), as well as a significant effect on recreational boating, because aquatic weeds would continue to propagate.

Response to Comment SIG-3: Thank you for your comment. All comments received will be taken into consideration in making final determinations regarding the potentially significant effects of the project and alternatives in the FEIR/FEIS.

Comment SIG-4: The Proposed Project will cause significant environmental impacts because the chemical composition of waters in the Tahoe Keys will be altered by the introduction of herbicides and its carrier ingredients (which are not identified or evaluated in the document and can sometimes be more harmful than the herbicides themselves). Since Lake Tahoe and the Tahoe Keys do not contain these chemicals, their addition to the water crosses the threshold for significance sine the lake is an outstanding national resource water and discharge of herbicides will alter the water's quality and persist for several weeks or months.

Response to Comment SIG-4: Short term and temporary changes to water quality of an ONRW may be allowed. See Master Responses ALT-G2, HER-G1, and WQO-G1 and responses HE-90 and HE-91.

Comment SIG-5: The Proposed Project will cause significant environmental impacts due to adversely affecting non-target species of aquatic plants, and potentially, indirectly, altering nutrient cycling, causing increased algal blooms including nuisance and harmful blue green algae.

Response to Comment SIG-5: Sections 3.2 and 3.3.4 identified several potentially significant effects and provided analyses, protection measures, and mitigation measures to support the DEIR/DEIS conclusions that the risks from release of nutrients during plant decomposition, including increased occurrence of HABs, could be rendered less than significant. Similarly, Section 3.3.5 found that impacts to non-target aquatic plants would be less than significant. The disagreement regarding conclusions is noted.

Comment SIG-6: Except for the water budget section, the Draft EIR/EIS generally lacks substantive supporting documentation and references to support the assertions and conclusions, particularly with regard to the findings of no significant impacts of any of the action alternatives.

Response to Comment SIG-6: The DEIR/DEIS provides information sufficient for the public and decision makers to understand the impacts of the project, including changes to water quality. A list of references can be found in the DEIR/DEIS. In addition, CEQA requires that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project, however the level of analysis is not required to be as detailed as that conducted on the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but these effects may be discussed in less detail than the significant effects of the project as proposed (14 CCR 15126.6[d].

Comment SIG-7: Given the uncertainties and lack of details and estimates, the conclusion on page 3.3.1-8 that "impacts to earth resources resulting from the proposed action would be less than significant" cannot be substantiated and should be changed to significant impacts.

Response to Comment SIG-7: See response SIG-6.

Comment SIG-8: Numerous deficiencies in the analysis show that insufficient information has been provided to justify the conclusion that all the significant impacts of AA2 can be mitigated to less than significant. Therefore, AA2 should be eliminated from consideration.

Response to Comment SIG-8: See response SIG-6.

TERRESTRIAL EFFECTS

Comment TER-1: pure large bodies of water are necessary for wildlife survival particularly during migration to wildlife nesting areas in the arctic.

Response to Comment TER-1: Thank you for this input.

Comment TER-2: The Pre-Project Biological Monitoring Plan should be included in the draft EIR/EIS for public review as well as for peer review.

Response to Comment TER-2: Including a Pre-Project Biological Monitoring Plan into the DEIR/DEIS is not necessary to evaluate the potential environmental impacts of the project and mitigation measures to reduce potential significant impacts to less significant. The DEIR/DEIS provides information sufficient for the public and decision makers to understand the impacts of the project. After the release of the DEIR/DEIS, the proposed monitoring plan was peer reviewed on whether it provides sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application.

TRANSPORTATION

Comment TRN-1: The shift from Level of Service to VMT not adequately addressed.

Response to Comment TRN-1: The DEIR/DEIS includes discussion of vehicle miles traveled (VMT) and Senate Bill 743 (Steinberg), which directed the change in transportation analysis from level of service (LOS) to VMT, on pages 3.4-17 and 3.4-18. As noted in the text on page 3.4-18, technical guidance offered by the California Governor's Office of Planning and

Research (OPR) in its "Technical Advisory on Evaluating Transportation Impacts in CEQA" establishes a screening criterion of 110 new vehicle trips. Below this screening criterion, a project would not be anticipated to have a significant transportation impact under CEQA, and no further detailed analysis would need to be performed to evaluate the potential VMT impacts of the project.

Because the project trips are temporary and the number of trips associated with the Proposed Project and each Action Alternative fell below the OPR screening criterion, VMT impacts of the Proposed Project and each Action Alternative were determined to be less than significant without need for further analysis or discussion.

For the Proposed Project, new daily vehicle trips are estimated at 18, as discussed under Issue TR-1: Generation of New Daily Vehicle Trips, on DEIR/DEIS page 3.4-20. Traffic-related projections and impact analysis of the Proposed Project and Action Alternative 1 were found to be similar, as noted on DEIR/DEIS page 3.4-22. With an estimated 54 new daily vehicle trips, vehicle trips associated with implementation of Action Alternative 2 would be higher than the Proposed Project and Action Alternative 1 but would still be less than the screening criterion of 110 net new daily trips in the OPR guidance on assessing VMT impacts under CEQA (DEIR/DEIS page 3.4-24). Thus, VMT impacts of the Proposed Project and both Action Alternatives were found to be less than significant. With no change to existing operations for the No Action Alternative, the No Action Alternative was concluded to have no VMT impact (DEIR/DEIS page 3.4-26).

Comment TRN-2: Under Section 3.4.3, the Traffic discussion does not mention SB 743 or Vehicle Miles Traveled (VMT) thresholds or impacts, which is a new requirement of traffic analysis in CEQA. Action Alternative 2 should at least contain an explanation of how truck trips are not included in this type of analysis. Although we do not expect these impacts to be significant, the lack of discussion of VMT impacts is a concern in terms of the completeness of the analysis.

Response to Comment TRN-2: See response TRN-1.

URGENCY

Comment URG-1: Please avoid analysis paralysis. The fact that comments are being collected for so many months is evidence by itself that we're not moving with the necessary sense of urgency. Be bold. Contain and address the problem before you have no chance of winning the battle. The whole time this issue has been studied, the weeds have ruthlessly expanded their domain. You are clearly aware that the Keys are fully infested. It's hard for any boat to move about without hooking then spreading strings of Eurasian Milfoil. Something MUST be done aggressively and soon there. Beyond the Keys, I think the common beliefs are that "The water is generally deep and cold which encourage growth", "It's not bad yet", and "We'll be able to quickly address the few outbreaks." These thoughts are all wildly optimistic. Last weekend, I raced a sailboat from the Keys to Cave Rock, the UC Davis Research Buoy off of Sugarpine Point, Edgewood, and back. I was stunned by the number of strains of Milfoil out in the middle of the Lake, still green and apparently capable of rooting and reproducing.

I know work is currently underway to make the bubble curtain operational again. I know UV and tarps show promise. I know herbicides have been discussed but many are reluctant to pursue what they fear is drastic action. Whichever solution, or combination of them, you believe is best

MUST be implemented soon. This is much like Covid. The problem is spreading far faster than we've been willing to admit and our actions so far have been ineffective Band Aids. The longer we wait, the worse this problem will get. Let's immediately address at least the Keys as they are the center of this cancer which is spreading.

Response to Comment URG-1: The proposed CMT responds to a sense of urgency felt by many stakeholders and shared by the lead agencies. The DEIR/DEIS addresses the dispersal of fragments at several locations, including the Executive Summary (pp. ES-1, 2, 3, 7, 8, and in regard to Issue WQ-3 Dispersal of Aquatic Weed Fragments in the Executive Summary Table ES-1 and in section 3.3.4 as well as in relation to issue AQU-4. In Chapter 1, the dispersal of fragments is addressed in section 1.1.3.1 History of Aquatic Weeds Infestation and in Figure 1-2 showing aquatic invasive plant infestations in Lake Tahoe. The response by TKPOA is discussed in section 1.1.3.2, and the prevention of weed fragment generation and dispersal is listed in section 1.2.2 Project Goals and Objectives, and Performance Measures. Serious issues attending the continued dispersal of fragments and the growth of infestations are addressed for the No Action Alternative in Chapter 3 and throughout the DEIR/DEIS. In Chapter 2, consideration of weed fragment generation is integral to the evaluation of Group A and B methods.

Comment URG-2: Immediate action is required. The infestation of aquatic weeds in the Tahoe Keys lagoons must be addressed immediately to minimize or prevent its many impacts, including degradation of water quality, causal relationship with hazardous algal blooms, deleterious effects to native species and negative impacts on recreational boating and swimming opportunities, which are currently and increasingly affected by the aquatic weed infestation. 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 growing with each moment we delay advancing our efforts.

Response to Comment URG-2: See response URG-1.

Comment URG-3: In addition, not only is there an increasing trend in the number of locations at which CLP is present, the fraction of the weed volume that consists of CLP is also increasing quite dramatically. The trend graph below shows that in 2014, CLP constituted only 14% of the weed volume within the samples observed during the annual Macrophyte Survey. From 2014 to 2018, that percentage increased to 55% and has remained above 50% the last two years. Thus, at locations where CLP is present, the abundance of that species compared to other species has increased substantially over the past five to six years. TKPOA feels that it is very important to fully disclose and describe the above information in the DEIS/EIR. Without an accurate understanding of the rate that the target weeds continue to proliferate, despite the substantial efforts that have been taken to try to manage them, the proper urgency with which the Proposed Project needs to be deployed is substantially understated and misrepresented. (*Note: line graph H11 not included in comment field but can be viewed in original comment letter).*

Response to Comment URG-3: See response URG-1

Comment URG-4: We cannot afford to waste three years on tools that won't solve the problem. UV doesn't kill roots & turions; LFA is probably best for spot treatment.

Response to Comment URG-4: See response URG-1.

WETLANDS

Comment WET-1: Page 1-3 "Pope Marsh comprises a non-WOUS area to the west and south of the Tahoe Keys" Pope Marsh is a Water of the United States (WOUS). Wetlands meeting the federal definition of a wetland such as Pope Marsh constitute Waters of the United States.

Response to Comment WET-1: Regardless of the whether or not Pope Marsh and Lake Tallac are WOUS, discharges into Lake Tallac are treated as possible discharges into Tier III waters, Lake Tahoe, in the antidegradation analysis included in the NPDES permit.

Comment WET-2: The Draft EIR/EIS states on page 1-3: "Pope Marsh comprises a non-WOUS area to the west and south of the Tahoe Keys." This is incorrect. Pope Marsh is a hydrologically connected wetland to Lake Tahoe, and therefore is a jurisdictional wetland and water of the US (WOUS).

Response to Comment WET-2: Regardless of the whether or not Pope Marsh and Lake Tallac are WOUS, discharges into Lake Tallac are treated as possible discharges into Tier III waters, Lake Tahoe, in the antidegradation analysis included in the NPDES permit.

4 Revisions to the Draft EIR/EIS

The following revisions to the text of the DEIR/DEIS reflect changes identified in Chapter 3, and changes that clarify information in the DEIR/DEIS. For each change, new language is underlined and deleted text is in shown in ~~strike through~~ text. The changes are organized in the order of the DEIR/DEIS table of contents.

This section also includes minor corrections to the DEIR/DEIS.

4.1 EXECUTIVE SUMMARY

The following paragraph was added to the description of Action Alternative 1 in ES.3.3, to explain the selection of the environmentally superior project alternative:

"The Environmentally Superior Alternative was selected based on the least amount of potential environmental effects, even if the compared alternatives and the Proposed Project were considered to have "less than significant" impacts. Action Alternative 1 was considered Environmentally Superior because it entails fewer activities that could cause effects.

The following incorrect statement was deleted from DEIR/DEIS Executive Summary Table ES-1,: Summary of Impacts and Mitigation Measures.

"Table ES-1 presents a matrix comparison of the Proposed Project and alternatives, summarizing significant unavoidable effects after mitigation, consequences for TRPA environmental thresholds, effects on the relationship between short-term uses and long-term enhancement of long-term productivity, growth-inducing effects, and irreversible or irretrievable effects. ~~As shown in Table ES-1 and Table 5-1, Action Alternative 1 (Testing Non-Herbicide Methods Only) is the only alternative that entirely avoids potentially significant impacts after mitigation.~~ As discussed in Section 5.7, Action Alternative 1 was identified as the environmentally superior alternative."

An internal comment was inadvertently included in the Executive Summary page 2-6. The following paragraph is deleted from DEIR/DEIS:

> ~~The only discussion on infeasibility of an alternative that I see in this chapter relates to dry dredging. How was Lahontan's antidegradation analysis and water quality objectives used to consider the "infeasibility" of an alternative? Many of our approved permits and the underlying discharge associated with them have the potential to exceed a water quality objective (that is why we include effluent limitations in the permit). I don't think we exclude those as being infeasible. I'm supposing that alternatives that were certain to create long term degradation and violation of objectives were not discussed. This may or may not need to be rewritten. I would first like to understand how our Basin Plan was used to determine infeasibility.~~

Table ES-1 (DEIR/DEIS pages ES-10 to ES-25) has been revised to provide greater clarity and consistency with how resource protection measures and mitigation are presented in the evaluations of environmental consequences in Chapter 3 of the DEIR/DEIS. A new column has been added in the table to distinguish resource protection measures that are described in the APAP as part of the Proposed Project actions, from mitigation measures that are necessary to reduce potentially significant environmental effects to less than significant. To be consistent with Chapter 3 findings,

the Significance Before Mitigation in the second column of Table ES-1 was corrected from Potentially Significant (PS) to Less Than Significant for one or more project alternatives for issues EH-4, AQU-9, TR-3, and NO-1. For readability, these edits to the form of the table are not indicated with underlining/strikethrough. Additional edits were made to the titles and summaries of resource protection measures and mitigation in the table to improve clarity and consistency with Chapter 3.

Table ES-1 Summary of Impacts and Mitigation Measures

Impact Issues	Significance Before Mitigation	Mitigation	Resource Protection Measures	Significance After Mitigation
B = Beneficial **NI** = No impact **LTS** = Less than significant **PS** = Potentially Significant **SU** = Significant and Unavoidable **NA** = Not Applicable **PP** = Proposed Project **AA1** = Action Alternative 1 **AA2** = Action Alternative 2 **NAA** = No Action Alternative				
Environmental Health				
Issue 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 assure that no chronic exposures would occur.	PP = PS AA-1 = NA AA2 = NA NAA = NA	**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.		PP = LTS AA1 = NA AA2 = NA NAA = NA
Issue EH-2: Detectable Concentrations of Herbicides and Degradants in Receiving Waters. Impacts could occur if detectable concentrations of active ingredients and chemical degradants of herbicides proposed for testing persisted in lagoon waters. The environmental fate and persistence of each herbicide proposed for testing in the West Lagoon and Lake Tallac are defined in the literature. There is a potential for excess discharge concentrations if an herbicide product were spilled.	PP = PS AA1 = NA AA2 = NA NAA = NA	Detectable concentrations of discharged herbicides and their degradants would be controlled as a temporary condition allowable only for weeks to months. **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. **EH-6b Aeration:** Aeration technologies such as LFA would be implemented at each herbicide test site ~~immediately~~ after target aquatic weeds die back from the		PP = LTS AA1 = NA AA2 = NA NAA = NA

Table ES-1 Summary of Impacts and Mitigation Measures

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		herbicide application. Aeration during plant decomposition would increase 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. The aeration systems would be continually operated until herbicide active ingredients and degradants are no longer detected above background concentrations.		
Issue EH-3: Protection of Drinking Water Supplies. Although even minimal dilution would prevent concentrations exceeding drinking water criteria from reaching drinking water supplies, degradation would occur if concentrations of active ingredients and chemical degradants of herbicides proposed for testing were detectable in or near the locations of potable water intakes. The potential for detectable concentrations at drinking water supply intakes is a function of the potential for transport of chemicals to these locations, the environmental fate and persistence of each herbicide proposed for testing, and the maximum allowable application rates for the proposed herbicides.	PP = LTS AA1 = NA AA2 = NA NAA = NA		**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. **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	PP = LTS AA1 = NA AA2 = NA NAA = NA

Table ES-1 Summary of Impacts and Mitigation Measures

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			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. **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 specified actions if herbicides are detected. **EH-3d West Channel monitoring and contingencies:**	

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			If herbicides are detected within the West Channel, additional 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 LWB 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-3e Public outreach:** TKPOA would design and carry out an information campaign targeting homeowners, renters, and rental agencies, to provide advance notice regarding the CMT before and during aquatic herbicide applications. TKPOA would also hold a workshop and	

Table ES-1 Summary of Impacts and Mitigation Measures

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			informational meeting with Tahoe Water Suppliers Association (TWSA) at least 45 days before herbicide applications are conducted. **EH-3f Carbon filtration contingency:** If monitoring detects herbicide residues ~~C~~carbon filtration systems already installed at water supply wells would remove any herbicide residues. A mobile filtration system would pump and treat water at wells where exceedances are detected above drinking water standard concentrations. **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 herbicide residues or chemical transformation products do not migrate toward the West Channel connecting the West Lagoon to Lake Tahoe	
Issue EH-4: Introduction of Toxic Substances	PP = LT~~P~~S	~~The herbicides proposed for~~	The herbicides proposed for	PP = LTS

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into the Environment. Impacts could occur if detrimental physiological responses could occur when humans, plants, animals, or aquatic life are exposed to the herbicides proposed for testing. Exposure could occur due to spills or in the course of application of the herbicides. Acute toxicity levels for each herbicide are defined by the USEPA. The maximum allowable application rates for each herbicide determine the potential for effects.	AA1 = NA AA2 = NA NAA = NA	~~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).~~ ~~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.~~	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). **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.	AA1 = NA AA2 = NA NAA = NA
Issue EH-5: Short-term Increases in Aluminum Concentrations (NAA). Aluminum persistent 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.	PP = PS AA1 = PS AA2 = PS NAA = PS	**EH-5a Best Management Practices:** Best management practices 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. BMPs also would be used to prevent accidental releases of sediment to the lagoons during dredge spoils transport and handling. **EH-5b Treatment and testing of dewatering effluent (AA2):** Before any effluent is discharged		PP = LTS AA1 = LTS AA2 = LTS NAA = SU

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		to Lake Tallac or to the sanitary sewer system, it would be tested to ensure that aluminum levels comply with water quality criteria for aluminum. **EH-5c Leak Prevention, Spill Control, and Containment Plans (AA2):** A leak-detection program would be implemented for the transport of dredge spoils. Containment plans would assure adequate storage and safe handling of dredge spoils during processing. The plans would minimize the risk of dredged sediment containing aluminum from being released outside of approved discharge locations. **EH-5d Turbidity Curtain Barriers (AA2):** Turbidity curtain barriers would be used to isolate test areas for suction dredging and prevent the migration of disturbed sediment containing aluminum beyond the boundaries of test sites.		
Issue EH-6: Harmful Algal Blooms (HABs). A risk exists that the dieback and decay of aquatic weeds consequent upon test activities, and subsequent release of nutrients to the waters of	PP = PS AA1 = PS AA2 = NA NAA = PS	**EH-6a Timing and size of treatments:** Spring aquatic plant surveys would be conducted to ensure that herbicide treatments		PP = LTS AA1 = LTS AA2 = NA NAA = SU

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the lagoons could stimulate 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.		occur at times when target aquatic weeds 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. **EH-6b Aeration:** Aeration technologies such as LFA would be implemented at each herbicide test site ~~immediately~~ after target aquatic weeds die back from the herbicide application. Aeration		

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		during plant decomposition would increase 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. The aeration systems would be continually operated until herbicide active ingredients and degradants are no longer detected above background concentrations. ~~and would continue through the summer and early fall to reduce oxygen depletion from plant decay.~~ **EH-6c Lanthanum Clay**: 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		

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		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.		
Earth Resources				
Issue ER-1: Suction Dredging and Dredge Materials Disposal. Effects to earth resources could occur under Action Alternative 2, as soft organic sediment in three test sites would be removed by suction dredging, potentially destabilizing docks and bulkheads. Effects could also occur if spills of dredged sediment (consisting of organic silt and fine sand, plant roots and other organic matter, and lagoon water) occur during transported by pipeline to the location of the old Tahoe Keys Water Treatment Plant for handling, dewatering, or during transport for ultimate disposal.	PP = NA AA1 = NA AA2 = PS NAA = NA	**ERM-1 Dredge/Spill Containment (AA2 only):** Spill control, containment and contingency plans would be developed for installing and operating a pipeline transporting aluminum-contaminated dredge spoils. Spills in the dredge handling area would by contained by installing barriers and impermeable layers. Performance specifications would be promulgated for the design of the pipeline to minimize the risks of leakage or other failures. Appropriate leak detection systems would be installed in the pipeline systems to quickly detect any leaks and shut systems down prior to significant contamination. Soils		PP = NA AA1 = NA AA2 = LTS NAA = NA

Table ES-1 Summary of Impacts and Mitigation Measures

Impact Issues	Significance Before Mitigation	Mitigation	Resource Protection Measures	Significance After Mitigation
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		in material handling areas would be tested and the existing concrete tank would undergo an engineering evaluation to determine whether it is safe and suitable for storing dewatering effluent; portable Baker tanks would be used if it were found unsuitable. Secondary containment and liners would be employed as necessary to provide surface and ground water protection in the event of an accident. The effects of spill in transport would be remediated by clean-up operations. Any bulkheads or docks removed or destabilized by dredging would be fully mitigated by replacing them in kind, and any slopes that are destabilized would be mitigated by slope restabilization after the dredging test is completed. Speed limits and travel restrictions would be placed on roads used for dredge spoil transportation and disposal to reduce the potential for releases due to collisions and other accidents. These restrictions		

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		would need to be in place for at least six months based on current understanding.		
Air Quality and Greenhouse Gas Emissions				
Issue AQ-1: Compliance with the Basin Air Quality Plan. Conflicts with the applicable air quality plan or any effect on its implementation could affect compliance with air quality standards.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	No conflict with the Basin Air Quality Plan would occur, therefore no mitigation measures are proposed.		PP = LTS AA1 = LTS AA2 = LTS NAA = LTS
Issue AQ-2: Cumulatively Considerable Net Increases of Criteria Pollutants. Effects could occur if the Proposed Project or Alternatives resulted in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or State ambient air quality standard.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	Emissions associated with the Proposed Project and action alternatives are expected to be less than significant, therefore no mitigation measures are proposed.		PP = LTS AA1 = LTS AA2 = LTS NAA = LTS
Issue AQ-3: Exposure of Sensitive Receptors. If the Proposed Project or Alternatives exposed sensitive receptors to substantial pollutant concentrations, effects could occur.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	Emissions associated with the Proposed Project and action alternatives are expected to be less than significant, therefore no mitigation measures are proposed.		PP = LTS AA1 = LTS AA2 = LTS NAA = LTS
Issue GHG-1: Greenhouse Gas Emissions. CEQA requires the evaluation of the potential to generate greenhouse gas emissions, either directly or indirectly. The California Air Resources Board (CARB) has issued the draft Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act (2008), which indicates that a project would be	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	Emissions associated with the Proposed Project and action alternatives are expected to be less than significant, therefore no mitigation measures are proposed.		PP = LTS AA1 = LTS AA2 = LTS NAA = LTS

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considered less than significant if it meets minimum performance standards during construction and if the project, with mitigation, would emit no more than approximately 7,000 metric tons of carbon dioxide per year (MTCO2e/yr). The El Dorado County Air Quality Management District (EDCAQMD) currently uses CEQA guidance developed by the adjacent Sacramento Metropolitan Air Quality Management District (SMAQMD) (EDCAQMD, 2020), which states a GHG significance threshold of 1,100 MTCO2e/yr for the construction phase of all projects.				
HYDROLOGY				
Issue HY-1: Disposal of Dewatering Effluent. Under Action Alternative 2 (suction dredging) approximately 33 million gallons (i.e., 100 acre-feet) of dewatering effluent would be produced and would require disposal over a period of approximately six months. Discharge could occur to the South Lake Tahoe sanitary sewer system, if approved by the wastewater utility's Board of Directors, or to Lake Tallac, potentially affecting surface water levels and groundwater flows to the West Lagoon. These discharges could affect flooding.	PP = NA AA1 = NA AA2 = PS NAA = NA	For the Proposed Project and Action Alternative 1, no potential adverse effects to hydrology would occur, therefore no mitigation measures are proposed. **HY-1 Disposal of Dewatering Effluent (AA2 only):** For Action Alternative 2, mitigation includes discharging treated effluent to the sanitary sewer system, if approved. If discharge is made to Lake Tallac, dewatering effluent would be treated to meet water quality criteria and discharged in the late summer and early fall months, when water levels are		PP = NA AA1 = NA AA2 = LTS NAA = NA

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		lower and the risk of contributing to flood conditions would be negligible.		
WATER QUALITY				
Issue WQ-1: Water Temperature Effects. Short-term heating from ultraviolet light may occur during treatment. Where aquatic weed density is reduced by any of the treatment methods, a long-term increase in solar radiation penetration may add heat to the water. Increased water circulation during LFA operations is expected to eliminate thermal density stratification, leading to cooler waters near the surface and warmer waters at depth.	PP = LTS AA1 = LTS AA2 = LTS NAA = PS	~~**WQ1 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.~~	**WQ1 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.	PP = LTS AA1 = LTS AA2 = LTS NAA = SU
Issue WQ-2: Sediment Disturbance and Turbidity. Sediment disturbance would be caused by suction dredging under Action Alternative 2, and by installation, startup, and removal of LFA systems; or installation and removal of bottom barriers under the Proposed Project or Action Alternative 1. These actions could cause short-term increases in turbidity and a temporary decline in water clarity within and near treatment areas. There is also a potential for short-term increased turbidity and decreased water clarity during suction dredging, from any accidental spills during transport and processing of dredge spoils, or during discharge of treated effluent from sediment	PP = LTS AA1 = LTS AA2 = PS NAA = PS	~~**WQ-2: Real-Time Turbidity Monitoring and Adjustments in Practices**. Divers would minimize sediment disturbance where employed in Group B activities (hand-pulling of weeds or removal of bottom 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~~	**WQ-2a: Real-Time Turbidity Monitoring and Adjustments in Practices.** Divers would minimize sediment disturbance where employed in Group B activities (hand-pulling of weeds or removal of bottom 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	PP = LTS AA1 = LTS AA2 = LTS NAA = SU

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dewatering.		~~exceeded, the methods or pace of bottom barrier removal or other activities would be adjusted to achieve compliance with permit limits for turbidity.~~ **WQ-2b, WQ-5c, WQ-6b, WQ-7b: ~~Sediment Disturbance and~~ Turbidity** Controls for Dredging, Substrate Replacement, and Dewatering (AA2 only)**.** Under Action Alternative 2, impacts from suction dredging resuspension of the sediments in the water column would be minimized by optimizing the cutter head speed and movement with suction capacity, and using a moveable shield around and above the cutter head. Turbidity monitoring would indicate when engine speeds or auger pressures would need to be adjusted. These steps would also minimize the release of nutrients from disturbed sediment into the water column, reducing its availability to algae and minimizing the release of aluminum in sediments to the lagoon water. The rate and method of new sediment placement also would be	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.	

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		adjusted in response to monitoring. Silt curtains would be used to confine water quality impacts within test sites during dredging and substrate replacement. Performance specifications for sand or fine gravel used for substrate replacement would require testing prior to placement to ensure that the material did not contain excessive amounts of fine particles that could cause turbidity. Spill control and containment plans would be used to control accidental spills of dredge spoils and would include provisions for adequate storage for safe handling of dredge spoils during processing. No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced turbidity sufficiently to meet standards, as required by contract performance specifications. Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac.		

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Issue WQ-3: Dispersal of Aquatic Weed Fragments. Fragments may incidentally break off from aquatic plants during herbicide applications, ultraviolet light treatments, and placement of LFA systems, and suction. Floating plant fragments may escape, cause nuisance or adversely affect beneficial uses.	PP = NA AA1 = NA AA2 = LTS NAA = PS	~~**WQ-3: Dispersal of Aquatic Weed Fragments (AA2).** Performance specifications for sand or gravel used for substrate replacement would require that the material not contain excessive amounts of organic matter that could increase amounts of floating materials.~~	**WQ-3: Dispersal of Aquatic Weed Fragments (AA2 only).** Performance specifications for sand or gravel used for substrate replacement would require that the material not contain excessive amounts of organic matter that could increase amounts of floating materials.	PP =NA AA1 = NA AA2 = LTS NAA = SU
Issue WQ-4: Changes in pH. Short-term changes in pH could result from the introduction of herbicide products in treatment areas. Long-term beneficial changes in pH fluctuation could result from reduced photosynthesis, respiration and decomposition as dense aquatic weed beds are controlled. Increased water circulation and oxygenation of deep waters during LFA operation could also improve pH conditions.	PP = LTS AA1 = LTS AA2 = LTS NAA = PS	~~**WQ4 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.~~	**WQ4 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.	PP = LTS AA1 = LTS AA2 = LTS NAA = SU
Issue WQ-5: Changes in Dissolved Oxygen Concentrations. Rapid dieback of dense aquatic weed beds from testing herbicide applications or ultraviolet light could result in significant changes to 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. Offsetting beneficial effects may result where LFA increases water circulation and	PP = PS AA1 = PS AA2 = PS NAA = PS	**WQ5a Timing and Limited Extent of Testing:** The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce oxygen depletion at 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		PP = LTS AA1 = LTS AA2 = LTS NAA = SU

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improves low-oxygen conditions in the deeper portions of the water column during summer thermal stratification.		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 in the summer. Effects would also be mitigated by the limited size of test sites. **WQ5b Aeration**: LFA or other aeration systems would be deployed in herbicide test sites ~~immediately~~ after plant dieback to increase aerobic microbial degradation ~~of the herbicides~~ 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		

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		were not significant **WQ-2b, WQ-5c, WQ-6b, WQ-7b: Turbidity Controls for Dredging, Substrate Replacement, and Dewatering (AA2 only).** Under Action Alternative 2, impacts from suction dredging resuspension of the sediments in the water column would be minimized by optimizing the cutter head speed and movement with suction capacity, and using a moveable shield around and above the cutter head. Turbidity monitoring would indicate when engine speeds or auger pressures would need to be adjusted. These steps would also minimize the release of nutrients from disturbed sediment into the water column, reducing its availability to algae and minimizing the release of aluminum in sediments to the lagoon water. The rate and method of new sediment placement also would be adjusted in response to monitoring. Silt curtains would be used to confine water quality impacts within test sites during dredging and substrate replacement.		

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		Performance specifications for sand or fine gravel used for substrate replacement would require testing prior to placement to ensure that the material did not contain excessive amounts of fine particles that could cause turbidity. Spill control and containment plans would be used to control accidental spills of dredge spoils and would include provisions for adequate storage for safe handling of dredge spoils during processing. No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced turbidity sufficiently to meet standards, as required by contract performance specifications. Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac.		
Issue WQ-6: Increases in Total Phosphorus Concentrations. Short-term increases in lagoon total phosphorus concentrations could result from sediment disturbance during suction dredging or LFA installation, or during the initial operation of	PP = PS AA1 = PS AA2 = PS NAA = PS	**WQ6a Timing and Limited Extent of Testing:** The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce the		PP = LTS AA1 = LTS AA2 = LTS NAA = SU

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LFA systems circulating deep waters to the surface. Release of phosphorus from decaying aquatic plants to the water column could be accelerated during and after ~~weed control~~herbicide or UV treatments, which could increase concentrations during those periods but lead to lower concentrations from aquatic plant dieback in the fall. Long term, phosphorus release from decaying plants would be reduced where dense aquatic weed beds are successfully treated.		release of TP from macrophytes at 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 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 TP in the summer. Effects would also be mitigated by the limited size of test sites. ~~**Discharge of Treated Effluent (AA2):** No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced phosphorus sufficiently to meet standards, as required by contract performance specifications.~~		

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		~~Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac.~~ ~~Mitigation measures to meet project permit limits for turbidity (WQ-2) would also be effective in controlling nutrient entrainment in the water column from sediment resuspension.~~ **WQ-2b, WQ-5c, WQ-6b, WQ-7b:** Turbidity Controls for Dredging, Substrate Replacement, and Dewatering (AA2 only). Under Action Alternative 2, impacts from suction dredging resuspension of the sediments in the water column would be minimized by optimizing the cutter head speed and movement with suction capacity, and using a moveable shield around and above the cutter head. Turbidity monitoring would indicate when engine speeds or auger pressures would need to be adjusted. These steps would also minimize the release of nutrients from disturbed sediment into the water column, reducing its		

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		availability to algae and minimizing the release of aluminum in sediments to the lagoon water. The rate and method of new sediment placement also would be adjusted in response to monitoring. Silt curtains would be used to confine water quality impacts within test sites during dredging and substrate replacement. Performance specifications for sand or fine gravel used for substrate replacement would require testing prior to placement to ensure that the material did not contain excessive amounts of fine particles that could cause turbidity. Spill control and containment plans would be used to control accidental spills of dredge spoils and would include provisions for adequate storage for safe handling of dredge spoils during processing. No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced turbidity sufficiently to meet standards, as required by contract performance specifications.		

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		Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac. **WQ-6c and WQ-7c Effluent Treatment to Remove Phosphorus or Nitrogen (AA2 only):** No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced phosphorus sufficiently to meet standards, as required by contract performance specifications. Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac. Mitigation measures to meet project permit limits for turbidity (WQ-2) would also be effective in controlling nutrient entrainment in the water column from sediment resuspension.		
Issue WQ-7: Increases in Lagoon Water Total Nitrogen Concentrations. Short-term increases in lagoon water total nitrogen concentrations could result from sediment disturbance during suction	PP = PS AA1 = PS AA2 = PS NAA = PS	**WQ-7a Timing and Limited Extent of Testing:** The overall reduction in aquatic weed biomass from testing control methods is		PP = LTS AA1 = LTS AA2 = LTS NAA = SU

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dredging or 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 where dense aquatic weed beds are successfully treated.		generally expected to reduce the release of TN from macrophytes at 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 TN in the summer. Effects would also be mitigated by the limited size of test sites. **WQ-2b, WQ-5c, WQ-6b, WQ-7b: Turbidity Controls for Dredging, Substrate Replacement, and Dewatering (AA2 only).** Under Action Alternative 2, impacts from suction dredging resuspension of the sediments in the water column		

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		would be minimized by optimizing the cutter head speed and movement with suction capacity, and using a moveable shield around and above the cutter head. Turbidity monitoring would indicate when engine speeds or auger pressures would need to be adjusted. These steps would also minimize the release of nutrients from disturbed sediment into the water column, reducing its availability to algae and minimizing the release of aluminum in sediments to the lagoon water. The rate and method of new sediment placement also would be adjusted in response to monitoring. Silt curtains would be used to confine water quality impacts within test sites during dredging and substrate replacement. Performance specifications for sand or fine gravel used for substrate replacement would require testing prior to placement to ensure that the material did not contain excessive amounts of fine particles that could cause turbidity. Spill control and containment plans		

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		would be used to control accidental spills of dredge spoils and would include provisions for adequate storage for safe handling of dredge spoils during processing. No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced turbidity sufficiently to meet standards, as required by contract performance specifications. Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge to the sanitary sewer system or Lake Tallac. **WQ-6c Effluent Treatment to Remove Phosphorus or Nitrogen (AA2 only):** No discharge of dewatering effluent would be allowed until monitoring has demonstrated that treatment systems reduced phosphorus sufficiently to meet standards, as required by contract performance specifications. Treatment system designs could include settling and flocculation in batches stored in tanks for testing before discharge		

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		to the sanitary sewer system or Lake Tallac. Mitigation measures to meet project permit limits for turbidity (WQ-2) would also be effective in controlling nutrient entrainment in the water column from sediment resuspension.		
Aquatic Biology and Ecology				
Issue AQU-1: Effects on Non-Target Aquatic Macrophyte Species. Non-target plant species could be affected by direct contact with herbicides or through exposure to ultraviolet light treatments or implementation of some Group B methods. The magnitude of short-term impacts 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.	PP = PS AA1 = PS AA2 = PS NAA = PS	**AQU-1 Macrophyte Surveys:** 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.		PP = LTS AA1 = LTS AA2 = LTS NAA = SU
Issue AQU-2: Competitive Exclusion of Aquatic Macrophytes Due to Increased Growth of Curlyleaf Pondweed. If the application of aquatic herbicides favors the more competitive nuisance plants such as curlyleaf pondweed, this species could expand as other aquatic weeds are reduced at test sites, leading to the competitive exclusion of native species.	PP = LTS AA1 = NA AA2 = NA NAA = NA	~~Pre-treatment surveys would help focus the test sites on target species, thus implementation of Group A methods is expected to reduce the competitive pressure exerted by curlyleaf pondweed.~~	**AQU-1 Macrophyte Surveys:** Pre-treatment surveys would help focus the test sites on target species, thus implementation of Group A methods is expected to reduce the competitive pressure exerted by curlyleaf pondweed.	PP = LTS AA1 = NA AA2 = NA NAA = NA
Issue AQU-3: Effects on Sensitive Aquatic Macrophyte Species. No aquatic plant species occur in the vicinity of the Tahoe Keys lagoons	PP = PS AA1 = NA AA2 = NA	**AQU-1 Macrophyte Surveys:** Although the drift of endothall from the treatment sites in Lake Tallac		PP = LTS AA1 = NA AA2 = NA

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that are identified by TRPA as sensitive, or which are listed under federal or state Endangered Species Acts (ESA). Watershield (a 2B.3 California Rare Plant Bank [CRPR] sensitive species) is known to occur in Lake Tallac where endothall treatments are proposed. There is the potential for impacts to watershield due to drift of aquatic herbicides as part of Group A methods associated with the Proposed Project.	NAA = NA	may contact watershield, there is no published evidence that it would cause substantial adverse effects. Pre-treatment surveys described for AQU-1 would be implemented. These measures to avoid watershield in Lake Tallac, are expected to avoid effects on sensitive macrophyte species.		NAA = NA
Issue AQU-4: Changes in Aquatic Macrophyte Community Composition. Potential direct and indirect effects to the non-target 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.	PP = PS AA1 = PS AA2 = PS NAA = PS	**AQU-1 Macrophyte Surveys:** Spring macrophyte surveys would be used as a basis to adjust testing site boundaries to better target dense beds of target species and avoid adverse changes in macrophyte community composition.		PP = LTS AA1 = LTS AA2 = LTS NAA = SU
Issue AQU-5: Effects on the Aquatic Benthic Macroinvertebrate Community. Potential direct and indirect effects to the benthic macroinvertebrate community could include the loss of organisms as a result of exposure to ultraviolet light, through placement of bottom barriers, and/or through entrainment associated with suction dredging. Potential indirect adverse effects could result from short-term water quality degradation associated with vegetation decomposition.	PP = LTS AA1 = LTS AA2 = LTS NAA = PS	All treatments would be temporary and localized. Implementation of Group A methods would not be expected to result in a substantial change or reduction in the diversity or distribution of the aquatic BMI community, and no mitigation is required.		PP = LTS AA1 = LTS AA2 = LTS NAA = SU

Table ES-1 Summary of Impacts and Mitigation Measures

Impact Issues	Significance Before Mitigation	Mitigation	Resource Protection Measures	Significance After Mitigation
B = Beneficial **NI** = No impact **LTS** = Less than significant **PS** = Potentially Significant **SU** = Significant and Unavoidable **NA** = Not Applicable **PP** = Proposed Project **AA1** = Action Alternative 1 **AA2** = Action Alternative 2 **NAA** = No Action Alternative				
Issue AQU-6: Effects on Special-Status Fish Species. Toxicity tests indicate that the herbicides proposed for use in the Tahoe Keys lagoons are not toxic to fish and BMI species and the USEPA has determined that the herbicides would have no significant acute or chronic impact on fish or BMI when recommended rates are used. Ultraviolet light treatments could result in temporary effects on special-status fish if they are present in the immediate treatment areas; however, fish would be expected to quickly move away to avoid exposure. LFA would be expected to generally improve water quality, which could result beneficial, albeit small, effects to fish species.	PP = LTS AA1 = LTS AA2 = LTS NAA = PS	Lahontan Cutthroat Trout would not be expected to be present and Tui Chub would only be expected to occur as a small number of individuals, if at all. Both species would be anticipated to sense the treatment activity (i.e., disturbance) and move away to avoid becoming trapped, entrained, and/or affected by temporary habitat disturbance, as long as adequate habitat space is available for their movement. All treatments would be temporary and localized. Implementation of Group A methods would not be expected to result in a substantial reduction in numbers or reduced viability of special-status fish species and no mitigation is required.		PP = LTS AA1 = LTS AA2 = LTS NAA = SU
Issue AQU-7: Effects on Fish Movement that would Block Access to Spawning Habitat. Potential direct and indirect effects could occur if access to spawning habitat were blocked or delayed during the implementation of the Proposed Project or alternatives.	PP = LTS AA1 = LTS AA2 = LTS NAA = NA	No significant potential to block fish movements was identified and no mitigation is required.		PP = LTS AA1 = LTS AA2 = LTS NAA = NA
Issue AQU-8: Effects on the Suitability of Habitat for Native or Recreationally Important Game Fish Species. Potential effects to the suitability of habitat for native or recreationally	PP = LTS AA1 = LTS AA2 = LTS NAA = PS	No significant effects on habitat for native or recreationally important game fish species identified and		PP = LTS AA1 = LTS AA2 = LTS NAA = SU

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important game fish species could include short-term degradation of habitat associated with herbicide treatments, ultraviolet light, through the placement of bottom barriers, increases in turbidity associated with suction dredging, and changes in submerged aquatic vegetation, which provides important habitat structure for certain fish species.		no mitigation is required.		
Issue AQU-9: Effects Associated with the Introduction or Spread of Aquatic Invasive Species. Potential effects associated with the introduction or spread of aquatic invasive species could include the introduction of aquatic invasive species associated with equipment and personnel implementing the control methods. All of the control methods could result in the release and transport of aquatic weed seed and propagules to areas outside of the Tahoe Keys where aquatic invasive weed species have not yet become established.	PP = LTPS AA1 = LTPS AA2 = LTPS NAA = PS	The existing watercraft inspection program, and permit conditions requiring cleaning and inspection of all in-water equipment, would minimize risks for introduction or spread of AIS.		PP = LTS AA1 = LTS AA2 = LTS NAA = SU
Terrestrial Biology and Ecology				
Issue TE-1: Short-Term Effects on Terrestrial Habitats and Species. Short-term effects to terrestrial species and habitat may arise from disturbance or alteration of the existing habitat. Upland habitats that may be affected include ruderal and disturbed areas adjacent to the old Water Treatment Plant on the south shore of Lake Tallac. Wildlife species which utilize open water for foraging could be affected. Impacts may	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	~~**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~~	**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	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS

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include: Introduction and spread of invasive plant species within terrestrial, riparian, and wetland habitats. Damage or mortality of special-status plants or altered extent of special-status plant habitat. Disturbance to sensitive communities, including jurisdictional wetlands and riparian vegetation. Injury or mortality of special-status wildlife individuals or otherwise protected species. Disruption to wildlife habitat including extent of special-status wildlife habitat. Interference with wildlife movement. Disturbance caused by dredge and replacement substrate.		~~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 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, and TKPOA will consult with appropriate agencies to determine next steps prior to work restarting.~~	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 impacts are possible, coordination will be initiated with the appropriate federal (United States Fish and Wildlife Service [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, and TKPOA will consult with appropriate agencies to determine next	

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			steps prior to work restarting.	
Issue TE-2: Effects on Non-Target Riparian and Wetland Habitats and Species. Riparian and wetland species and habitats could be affected if herbicide applications affect non-target species; if LFA changes current riparian or habitat conditions; or if the discharge of dewatering effluent from test dredging affects water levels in Lake Tallac or Pope Marsh.	PP = LTS AA1 = LTS AA2 = PS NAA = LTS	Mitigation measures would be the same as those identified for Issues HY-1 and AQU-1(AA2 only).	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.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS
LAND USE				
Issue LN-1: Physical Division of an Established Community. Effects could occur if an established community were physically divided.	PP = NI AA1 = NI AA2 = NI NAA = NI	No new development would occur; therefore, there would be no impacts and no mitigation are required.		PP = NI AA1 = NI AA2 = NI NAA = NI
Issue LN-2: Conflicts with Land Use Plans, Policies, or Regulations. Conflicts with a land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect, could affect compliance. Potential conflicts evaluated include the environmentally mitigating policies and regulations listed in the TRPA Code of Ordinances, the Plan Area Statement (PAS) for Tahoe Keys (PAS-102), and the City of South Lake Tahoe General Plan.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	No conflicts with land use plans, policies or regulations would occur, and no mitigation is required.		PP = LTS AA1 = LTS AA2 = LTS NAA = LTS
Issue LN-3: Inclusion of Unpermitted Land Uses. Effects could occur if the Proposed Project or alternatives led to land uses that were not permitted under the PAS for Tahoe Keys, or if it resulted in expansion or intensification of an	PP = NI AA1 = NI AA2 = NI NAA = NI	No change in existing land uses would occur, including intensification of any existing land use. Therefore, there would be no impacts and no mitigation is		PP = NI AA1 = NI AA2 = NI NAA = NI

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existing non-conforming use.		required.		
RECREATION				
Issue RE-1: Obstruction of Direct Private Access to Lake Tahoe Recreational Boating. Recreational boat passage may be obstructed for Tahoe Keys property owners or their guests (e.g., vacation rentals) by turbidity curtains or other barriers placed in the Tahoe Keys lagoons during the proposed CMT or dredge and substrate replacement test. The threshold of significance is defined as a permanent loss of direct recreational boating access from the Tahoe Keys, including during the recreational boating season (from Memorial Day weekend through Labor Day weekend).	PP = LTS AA1 = NA AA2 = LTS NAA = PS	~~**REC-1 Public Noticing:** An information campaign would target home-owners, renters, and rental agencies, to provide advance notice on any public access or recreational restrictions during the test period. The campaign would employ emails, flyers, letters, TKPOA's periodical (The Breeze), and social media to provide announcements and project summaries three to six months in advance of proposed actions. Signage would be displayed by TKPOA 30 days prior to project implementation, throughout project implementation and 14 days after project completion. Notices will be posted in publicly visible locations immediately adjacent to test sites and at the intersection of Tahoe Keys Blvd and Venice Drive, to inform property owners and visitors about the project and current status of waterways.~~ ~~**REC-2 Timing for Placement and Removal of Barriers:** Herbicide treatments would be timed to allow~~	**REC-1 Public Noticing:** An information campaign would target home-owners, renters, and rental agencies, to provide advance notice on any public access or recreational restrictions during the test period. The campaign would employ emails, flyers, letters, TKPOA's periodical (The Breeze), and social media to provide announcements and project summaries three to six months in advance of proposed actions. Signage would be displayed by TKPOA 30 days prior to project implementation, throughout project implementation and 14 days after project completion. Notices will be posted in publicly visible locations immediately adjacent to test sites and at the intersection of Tahoe Keys Blvd and Venice Drive, to inform property owners and visitors about the project and current status of waterways.	PP = LTS AA1 = NA AA2 = LTS NAA = SU

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		~~treatments to be completed before the onset of the peak recreational boating season if possible. As soon as monitoring shows that acceptable limits of herbicides and degradation products are reached, barriers would be removed. For Action Alternative 2, barriers would remain in place for up to 4.5 months at each dredge site, and no provision is made for their early removal.~~ ~~**REC-3 Swimming and Other Direct Water Contact Restriction:** As part of the information campaign noted above, property owners and visitors would be alerted regarding the need to avoid direct water contact.~~	**REC-2 Timing for Placement and Removal of Barriers:** ~~.~~ Herbicide treatments would be timed to allow treatments to be completed before the onset of the peak recreational boating season if possible. As soon as monitoring shows that acceptable limits of herbicides and degradation products are reached, barriers would be removed. For Action Alternative 2, barriers would remain in place for up to 4.5 months at each dredge site, and no provision is made for their early removal. **REC-3 Swimming and Other Direct Water Contact Restriction:** ~~.~~ As part of the information campaign noted above, property owners and visitors would be alerted regarding the need to avoid direct water contact.	
Issue RE-2: Increased Use of Tahoe Keys Marina and Other Facilities. Recreational boat launches may be displaced to the Tahoe Keys Marina and other nearby launching facilities during the period that barriers are placed within the Keys to implement the CMT.	PP = LTS AA1 = NA AA2 = LTS NAA = NA	No significant issues would occur for the Proposed Project and Action Alternatives; no mitigation is required.		PP = LTS AA1 = NA AA2 = LTS NAA = NA

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Issue RE-3: Inconsistency with TRPA Recreation Thresholds. Environmental analysis considers two thresholds: R-1. High Quality Recreational Experience and R-2. Public's Fair Share of Resource Capacity.	PP = LTS AA1 = NA AA2 = LTS NAA = PS	No significant issues would occur for the Proposed Project and Action Alternatives; no mitigation is required.		PP = LTS AA1 = NA AA2 = LTS NAA = PS
UTILITIES				
Issue UT-1: Effects on Water Supply. Effects could occur if herbicide residues and degradants reached water supply intakes on Lake Tahoe, and led to the loss of filtration exemption for purveyors drawing from the lake. An impact could occur if turbidity increased in nearshore shallows near drinking water intakes as a result of the dieback and decay of aquatic weeds.	PP = NI AA1 = NA AA2 = NA NAA = PS	Due to dilution, no detectable concentration of herbicides or degradants attributable to the test program would occur at drinking water intakes, and therefore no impact would occur and no mitigation is required. TKPOA has proposed contingency plans, including monitoring and alert systems to be implemented if necessary to remove herbicides and other chemicals to treat the potable water before distribution.		PP = NI AA1 = NA AA2 = NA NAA = SU
TRAFFIC AND TRANSPORTATION				
Issue TR-1: Generation of New Daily Vehicle Trips. The Project would have a potentially significant impact if it generated more than 100 new daily trip ends (one-way vehicular trips), as defined by TRPA Code 65.2.	PP = LTS AA1 = LTS AA2 = LTS NAA = NI	Because the Proposed Project and action alternatives would generate less than the threshold minimum number of trips, no mitigation is required. ~~Further, prior to commencement of work under Action Alternative 2, TKPOA would coordinate with the City of South Lake Tahoe Public Works Roads~~	Prior to commencement of work under Action Alternative 2, TKPOA would coordinate with the City of South Lake Tahoe Public Works Roads Division for the operation of heavy vehicles on City streets and would submit an application for a transportation permit and/or a	PP = LTS AA1 = LTS AA2 = LTS NAA = NI

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		~~Division for the operation of heavy vehicles on City streets, and would submit an application for a transportation permit and/or a traffic control plan, as required.~~	traffic control plan, as required.	
Issue TR-2: Changes in Demand for Parking. An impact could occur if changes to parking facilities or new demand for parking affected the ability of Tahoe Keys property owners or members of the general public to find parking spaces in reasonable proximity to their destination.	PP = LTS AA1 = LTS AA2 = LTS NAA = NI	Because the Proposed Project and action alternatives would not generate a significant amount of demand for parking in relation to that available in the area, no mitigation is required.		PP = LTS AA1 = LTS AA2 = LTS NAA = NI
Issue TR-3: Effects on Roads and Level of Service. Effects could occur if there were a substantial impact on the condition or level of service of existing road segments along the planned haul routes for sediment and clean substrate could occur, or if patterns of circulation were altered, or if traffic hazards to vehicles, bicyclists or pedestrians were to increase.	PP = LTS AA1 = LTS AA2 = ~~LTS~~ PS NAA = NI	Because no existing roadways would be modified or closed for the Project, and further because truck trips for Action Alternative 2 would utilize trucks appropriately sized for the roadways, no impacts are expected to occur, and no mitigation would be required. TR-3 (AA2 only): Further, prior to commencement of work under Action Alternative 2, TKPOA would coordinate with the City of South Lake Tahoe Public Works Roads Division for the operation of heavy vehicles on City streets. As required by the City, TKPOA would submit a program for minimizing damage to the road surface as a		PP = LTS AA1 = LTS AA2 = LTS NAA = NI

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		result of the project.		
Issue TR-4: Effects on Water Traffic. The Project could have a potentially significant impact if it would alter waterborne traffic. The dredge and ultraviolet light alternatives would each deploy a single small barge.	PP = LTS AA1 = LTS AA2 = LTS NAA = NI	Because the travel paths of the barges under the Proposed Project and Action Alternative 2 are not expected to significantly alter existing waterborne traffic, and because there are no commercial transportation services in the Project area, no impacts would occur and no mitigation is required.		PP = LTS AA1 = LTS AA2 = LTS NAA = NI
NOISE				
Issue NO-1: Short-Term Noise Associated with Dredging and Substrate Replacement. The Proposed Project and Action Alternative 2 could cause short-term noise impacts, similar to a construction project.	PP = LTS AA1 = LTS AA2 = LTS NAA = LT~~LTS~~	The type of noise expected to be generated by the Proposed Project or Action Alternative 1 is considered exempt under local noise ordinances, and no mitigation is required. ~~For Action Alternative 2, the following measures would be implemented:~~ **~~NO-1 Work During Daylight Hours:~~** ~~Action Alternative 2 activities will occur only during daylight hours between 8:00 a.m. and 6:30 p.m.~~ **~~NO-2 Maintenance and Muffling of Equipment:~~** ~~All equipment used during performance of Action Alternative 2 will be maintained in good working order and fitted with~~	For Action Alternative 2, the following measures would be implemented: **NO-1 Work During Daylight Hours:** Action Alternative 2 activities will occur only during daylight hours between 8:00 a.m. and 6:30 p.m. **NO-2 Maintenance and Muffling of Equipment:** All equipment used during performance of Action Alternative 2 will be maintained in good working order and fitted with factory-installed muffling devices throughout the duration of the project.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS

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		~~factory-installed muffling devices throughout the duration of the project~~.		
CULTURAL RESOURCES				
Issue CR-1: Traditional Native American Resources and Values. Potential effects were determined through consultation with the affected Indian Tribe; identified concerns include effects cause by unanticipated discovery of cultural resources, or a lack of awareness by consultants and construction workers.	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS	~~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 associated Tribal Cultural Resources Awareness brochure to be included in the Proposed Project Mitigation Monitoring Plan. Incorporation of the Unanticipated Discovery Plan, Awareness Training, and Associated Awareness brochure into the final Mitigation Monitoring Plan for the Proposed Project will satisfy AB 52 compliance for the United Auburn Indian Community and meet mitigation requirements.~~	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 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 requested measures in the MMRP. ~~Incorporation of the Unanticipated Discovery Plan, Awareness Training, and Associated Awareness brochure into the final Mitigation Monitoring Plan for the Proposed Project will satisfy AB 52 compliance for the United Auburn Indian Community and meet mitigation requirements.~~	PP = LTS AA1 = LTS AA2 = LTS NAA = LTS

4.2 REVISIONS TO CHAPTER 1: Introduction and Statement of Purpose And Need

On page 1-3 of the DEIR/DEIS, the following edits were made to clarify the Project Location, Setting and Surrounding Land Use sections:

"Pope Marsh comprises an ~~non-WOUS~~ area to the west and south of the Tahoe Keys, under the jurisdiction of the U.S. Forest Service (USFS).[2] The hydrologic connections of all three of these waters are described in Section 3.3.3 ~~below~~."

On Page 1-8 of the DEIR/DEIS, Purpose and Need, the following aquatic weed names were inserted for clarity:

"The purpose of the Proposed Project is to test methods to control the spread of non-native target aquatic weeds (coontail, curlyleaf pondweed, Eurasian watermilfoil) that have compromised water quality and degraded a wide variety of beneficial uses of the Tahoe Keys lagoons and threaten Lake Tahoe, including both natural conditions and human use."

The second bullet under Performance Measures (DEIR/DEIS page 1-9) was expanded to provide more clarity on the criterion for biovolume reduction:

"This level of reduction of aquatic weed biovolume is considered a meaningful target for the treatment alternatives because it is expected to sufficiently reduce competition for space, light, and nutrients such that native aquatic habitat may become re-established, and Group B methods would be sufficient to control remaining weeds. Less than a 75% reduction resulting from the application of Group A methods would leave a residual population of weeds that would not be controllable using Group B spot treatments."

In the first introductory paragraph of the Regulatory Requirements (DEIR/DEIS page 1-13), section 1.4 Regulatory Requirements, Permits and Approvals, the STPUD was added as an entity with local jurisdiction in the project area:

"Federal and State agencies exercise jurisdiction concerning specific resources. Land and water resources potentially affected by the Proposed Project are under the jurisdiction of Federal and State agencies, South Tahoe Public Utility District (STPUD), the City of South Lake Tahoe, and TRPA. Table 1-1 identifies potential permits, consultations, and other potential approval actions from federal, state, regional, and local agencies for which this DEIR/DEIS may be used during these agencies' decision-making processes. The specific required approvals may vary depending on the selection of the preferred alternative."

The following corrections were made to DEIR/DEIS, Section 1.4.1.1, page 1-14:

The ONRW regulations (40 CFR 131.12(a)(3)) prohibit any discharge which would lower base-line water quality in an ONRW, which could include any new or increased discharge even if that discharge is in compliance with water quality objectives and no beneficial uses are adversely affected. ~~The detectable presence of any herbicide active ingredients or degradation products, or other lowering of water quality~~ Lowering of water quality as a result of project discharges, including residual aquatic herbicide or other chemical discharges, for a period greater than "short-term," would constitute "long-term" degradation and would not be permittable.

An ~~complete~~ Antidegradation Analysis (AA) will be required for the Proposed Project consistent with State and Federal antidegradation policies. The Antidegradation Policy Implementation for NPDES Permitting Administrative Procedures Update (APU 90-004, July 2, 1990) provides guidance regarding NPDES permits and the federal antidegradation policy. ~~, following the Administrative Procedures Update on Antidegradation Policy Implementation for National Pollutant Discharge Elimination System (NPDES) Permitting (State Water Board 1990), the Basin Plan and policy originating from the process developed to allow for exemptions to the Basin Plan prohibition on use of aquatic pesticides and herbicides.~~ The AA will include an evaluation of whether the discharge ~~project~~ has any unreasonable effects on beneficial uses, such as long-term water quality degradation, exceedance of Basin Plan water quality objectives, and impacts to non-target native species. ~~Consistent with State and Federal antidegradation policies and SWB Resolution 6816 Statement of Policy with Respect to Maintaining High Quality in California, the AA will also address balancing potential degradation with socioeconomic effects of the Proposed Project and alternative approaches to aquatic weed control at the Tahoe Keys lagoons test areas.~~

DEIR/DEIS page 1-18 description of Local Requirements of the STPUD was corrected as follows:

"Fees for such a discharge would be determined by the utility Board. ~~The City~~STPUD retains all its ~~police~~enforcement powers under applicable Federal and State law, court cases, and the federal and California constitutions, while acknowledging the role of TRPA to adopt environmental threshold standards and a regional plan to achieve and maintain the long-term protection of Lake Tahoe."

The timeline for the DEIR/DEIS Review (page 1-20) was updated as follows:

"The DEIR/DEIS ~~is being~~was distributed for a 60-day review period that ~~will end~~closed on September 3, 2020.

Written comments postmarked no later than August 22, 2020 ~~should be sent to~~were accepted at the following address:"

4.3 REVISIONS TO CHAPTER 2: Project Description and Alternatives

The following correction edit was made to the introductory paragraph on page 2-1:

"This chapter presents the Proposed Project, Action Alternatives, and No Action Alternative considered in this DEIR/DEIS to implement a ~~Comprehensive~~ Control Methods Test (CMT) for controlling target aquatic weeds in portions of the Tahoe Keys West Lagoon and Lake Tallac."

On page 2-2 in section 2.1: Summary of Proposed Project and Alternatives, the following edits were made for clarity, and a sentence was added to explain limitations on diver-assisted hand removal:

"Group B methods are non-herbicide maintenance treatments that are applied locally to follow ~~up~~ Group A treatments and control residual target aquatic weeds. Group B methods are intended to be long-term, sustainable control methods potentially capable of maintaining aquatic weed control after initial Group A treatments have been applied to "knock down" the abundant target aquatic weeds in the Lagoons. For example, following a Group A herbicide treatment that achieves at least a 75% reduction in targeted aquatic weeds, Group B methods would be used to further control aquatic weeds and in no case would repeat use of herbicides be permitted as part of the project. Group B methods may include such actions as spot treatments with ultraviolet light, bottom barriers, diver-assisted suction and diver hand pulling techniques. Use of Group B methods

would be implemented in years 2-3, following Group A methods (Figure 2-2). The selection of Group B methods would be informed by the decision tree shown in Figure 2-3, and also consider constraints from bottom morphology or other physical obstructions. The 0.3-acre maximum for selecting diver-assisted hand removal as a Group B method considered that it would be too time consuming and hazardous for divers to complete the removal over large areas at many test sites."

Where the Tahoe Keys Lagoons Aquatic Weed Control Methods Test Timeline (Figure 2-2) showed the CMT being implemented in 2021 through 2023, the implementation was delayed by one year since the DEIR/DEIS was published, and the start of the CMT depends on suitable hydrologic conditions (I.e., water flowing into the lagoons from Lake Tahoe). For these reasons, the CMT implementation is more accurately understood as Year 1, Year 2, and Year 3.

The third paragraph of the description of Feasibility under Selection Criteria (DEIR/DEIS section 2.2.2, page 2-6) internal comments were inadvertently included in the DEIR/DEIS. This paragraph has been deleted from this FEIR/FEIS.

~~"a. The only discussion on infeasibility of an alternative that I see in this chapter relates to dry dredging. How was Lahontan's antidegradation analysis and water quality objectives used to consider the "infeasibility" of an alternative? Many of our approved permits and the underlying discharge associated with them have the potential to exceed a water quality objective (that is why we include effluent limitations in the permit). I don't think we exclude those as being infeasible. I'm supposing that alternatives that were certain to create long term degradation and violation of objectives were not discussed. This may or may not need to be rewritten. I would first like to understand how our Basin Plan was used to determine infeasibility."~~

A reference citation (DEIR/DEIS section 2.2.4, page 2-7) was inserted in paragraph 2, description of Bottom Barriers under Group B Methods Carried Forward as follows:

"While their use has been effective at small scales in other areas of the lake, their success in the Tahoe Keys has been shown to be short-term, and recolonization is common (TKPOA 2020e)."

In the first paragraph on page 2-8, a sentence was added to direct the reader where to find information on CMT monitoring:

"Specific follow-on Group B methods would be selected based on the presence of target aquatic weed and other plants, Group A monitoring results, and site conditions present at the time of implementation. Details of the monitoring methods are provided in the APAP and NPDES permit."

To explain why mechanical harvesting would not interfere with the CMT, the following third paragraph was added to the introduction to Section 2.3, page 2-9.

"Mechanical harvesting is not expected to interfere with evaluating the effectiveness of weed control methods. If summer mechanical harvesting is needed at aquatic herbicide test sites after treatment in the late spring, then it will be clear that the herbicide product was not effective in meeting goals to reduce weed biovolume. A UV light test site would also fail the test if aquatic weeds after treatment grew to the height that would require harvesting to maintain navigation. If harvesting became necessary within LFA test sites during multi-year testing, the biovolume of aquatic weeds removed would be estimated to allow for comparing treatments. TKPOA will document all harvesting that may occur in treatment and control areas."

Under Overview of Test Program (DEIR/DEIS Section 2.3.1.2, page 2-9) , the description of Location and Size of Test Plots, Including Controls, the first paragraph was expanded to identify the reasons why the final designation and boundaries of test sites would be determined after spring macrophyte surveys during the first year of CMT implementation:

"Tests would be conducted at selected sites within the Tahoe Keys lagoons. Figure 2-4 shows the currently anticipated locations of the sites for testing Group A methods (note that these locations may be adjusted based on Spring 2021 hydroacoustic scans and macrophyte surveys in the lagoons). Adjustments to the locations or site boundaries would not result in an expansion of the overall area for aquatic weed control testing or the total area where aquatic herbicides would be tested. The principal reasons for waiting to finalize the assignment of treatments and boundaries of test sites until after spring macrophyte surveys are to (a) ensure that test sites are selected that represent the most dense early-season aquatic weed growth present in the lagoons, (b) match the specific test herbicides to sites where they are likely to be effective for the mix of target species present, (c) attempt to provide three replicate sites for each control method or herbicide product tested, and (d) minimize impacts to non-target macrophyte communities. Modifications to the experimental plan using plant survey results would be limited by the desire for replicate tests, the need for test sites to be approximately 1 acre or larger, and the need to maintain space or provide barriers between test sites."

The third paragraph of Location and Size of Test Plots, Including Controls, was expanded to provide more information on the CMT study design:

"The 21 test treatment sites (and the three control sites) reflect the heterogeneity of the Tahoe Keys lagoons, including differences in water depths, water clarity, nutrient inputs, water circulation, shoreline conditions (e.g. bulkheads vs rocky or irregular shores), density and size of docks, and effects of wind and weather. Heterogeneity will help determine the efficacy and mitigation of potential environmental effects in lagoon areas with different depth, water circulation, physical features, and water quality characteristics. It would not be possible to provide three replicate test sites of at least one acre that would encompass all the combinations of these factors, so there is no expectation that monitoring results will provide definitive isolation of each variable. It is acknowledged that three is a minimum number of replicates that will limit the findings of significant differences between test sites, particularly given the large number of variables that could influence the efficacy of different weed control methods. Increasing even from three to four replicates would not be possible without crowding test sites closer together or reducing the size of test plots and compromising the validity of tests. These limitations precluded an ideal study design but would not prevent the CMT from producing important information on what methods work or do not work in the lagoons. Test sites are distributed through most of the West Lagoon, except for the large open area connected to the West Channel where the aquatic weed infestations have generally been less dense compared to the smaller and shallower lagoon channels. In Lake Tallac, herbicide test sites were placed at the east end of the lagoon out of the main flow path of storm flows that pass through the south arm of Lake Tallac before flowing west toward Pope Marsh. The two new LFA test sites were located to be close to TKPOA facilities with electrical power."

Table 2-1: Proposed CMT Test and Control Sites (DEIR/DEIS page 2-11) has been corrected to show that Site 20 herbicide treated area is 1.0 acres, not 10 acres.

On DEIR/DEIS page 2-11, the following sentence was added to the fifth paragraph of Location and Size of Test Plots, Including Controls:

"Test plot locations may be adjusted based on the results of spring macrophyte surveys to ensure that target weed infestations are dominant in treatment areas. The same hydroacoustic and point-count methods, used during many years of macrophyte surveys at the Tahoe Keys, would continue to be used, both for pre-project surveys and for project monitoring."

Under Specific Herbicide Test Application Parameters (DEIR/DEIS page 2-15), the first paragraph of Herbicide Application Methods and Rates was edited to clarify information on the quantities of herbicides that could be applied during the CMT:

"Quantities of herbicides to be used at each test site will be determined by applicators after the boundaries of test sites are finalized using information from spring aquatic macrophyte surveys. Using estimated average water depths and acreages at the example test sites shown on Figure 2-4, the maximum total volumes of herbicides that would be applied if applied at maximum label rates at all test sites combined would be approximately 63 gallons of endothall, and 25 gallons of triclopyr or about 1/2 cup of Procella™COR (i.e., florpyrauxifen-benzyl, only if approved for use in California). However, the application rates proposed in the APAP (TKPOA 2020) would amount to less than half of these estimated volumes."

The following clarifying edits were made to the Monitoring and Reporting Programs subsection (page 2-18).

"They would be implemented to prevent and respond to accidental spills, contain herbicides within the treatment area, monitor concentrations and movement of the aquatic herbicide chemicals and degradates after application, and alert the public and water purveyors should aquatic herbicides move beyond the treatment areas into areas of the lagoons or Lake Tahoe beyond planned containment."

"A ~~single comprehensive~~ Mitigation Monitoring and Reporting Program (MMRP) issued by the LWB would include monitoring and reporting conditions related to ~~of the existing WDRs, requirements of the Pre-Project Biological Monitoring Program, and any Mitigation, Monitoring and Reporting (MMRP)~~ CEQA requirements to address potentially significant effects identified in this EIR/EIS."

The following edits were made to correct the first paragraph describing Stand-Alone Tests of UV Light (DEIR/DEIS Section 2.3.3, page 2-19)

"The ultraviolet light system was designed to treat rooted aquatic weeds so this control method, however, the developer of the UV light technology indicates that it could be modified to treat coontail. ~~would not be tested in areas where floating coontail are dominant or co-dominant, based on macrophyte surveys, and the final selection of test sites and determination of site boundaries would include this consideration.~~"

The following edit was made to clarify the third paragraph describing Stand-Alone Tests of Laminar Flow Aeration (DEIR/DEIS, Section 2.3.4, page 2-22).

"The cause of the decrease in aquatic plant coverage was not determined but may have been due in part to less availability of sediment nitrogen in forms readily utilized by aquatic plants."

In the first paragraph describing the Combination Test of Ultraviolet Light and Herbicides, the following sentence was inserted to clarify the intent of testing multiple methods together (DEIR/DEIS, Section 2.3.5, page 2-22).

"Monitoring of stand-alone herbicide and UV light tests will be used to compare aquatic weed control performance with performance at combination sites, so there will be no need to differentiate the effectiveness of these two methods individually within combination sites."

The footnote number 5 at the bottom of DEIR/DEIS page 2-25 was corrected:

~~[1] A 25-fold dilution of the maximum application rate for endothall and a six-fold dilution for triclopyr would suffice to fall below drinking water standards. There are no drinking water restrictions for florpyrauxifen-benzyl,~~

[5] A 25-fold dilution of the maximum application rate for endothall ~~and a six-fold dilution for triclopyr~~ would suffice to be below drinking water standards. There are no drinking water restrictions on Triclopyr or florpyrauxifen-benzyl. The six-fold dilution for Triclopyr would to be below dietary recommendation exposure limits at 400 parts per billion.

To clarify the identification of the local wastewater utility, the following edits were made to the second and third paragraph describing Dredge Dewatering Effluent Treatment and Disposal (DEIR/DEIS section 2.5.5, page 2-35).

"One option would be to discharge partially treated dewatering effluent to the ~~South Lake Tahoe~~STPUD sanitary sewer system. Figure 2-8 shows two potential routes for discharge to the sewer.

The first option for sewer system discharge would be to reuse the existing 24-inch-diameter water pipeline from the Tahoe Keys water treatment plant to the nearest ~~South Lake Tahoe~~STPUD sanitary sewer pump station at the corner of Tahoe Keys Boulevard and Venice Drive."

The last paragraph on page 2-37, Dredge Dewatering Effluent Treatment and Disposal section was edited to identify permitting authorities for treated effluent discharge into Lake Tallac.

"The other option for treated dewatering effluent disposal would be to use the existing million-gallon tank on-site or portable storage tanks as part of the dewatering effluent treatment process, with discharge to Lake Tallac under permit conditions specified by the LWB, TRPA, and U.S. Army Corps of Engineers."

Regarding the Potential Dredge and Substrate Replacement Schedule (for AA2), the following clarifying sentence was added at the end of the second paragraph: pg 2-37.

"If treated effluent were to be discharged to Lake Tallac the work could not be performed until water levels receded after the snowmelt runoff season."

To clarify assumptions regarding the continued need for mechanical harvesting, the following edits were made to the second paragraph of section 2.6.1, Tahoe Keys Lagoons No Action (page 2-38).

"Harvesters have continued to be permitted under the WDRs and used in the Tahoe Keys to maintain navigation access in the lagoons by cutting off and removing the top three to five feet of

plants, thus maintaining recreation use and limiting the uncontrolled weed fragments that would otherwise be spread by boat propellers motoring through weed beds."

4.4 REVISIONS TO CHAPTER 3: Affected Environment and Environmental Consequences

SECTION 3.1: Approach to Environmental Analysis

Section 3.1.1—Environmental Issues (Environmental Health//Earth Resources)

Water Quality

The following corrections were made to DEIR/DEIS, Section 3.1.1.1, page 3.1-2:

> **Issue EH-2: Detectable Concentrations of Herbicides and Degradants in Receiving Waters.** TRPA criteria for pesticide use in Code §60.1.7 require that no detectable concentration of any pesticide shall be allowed to enter surface water unless TRPA finds that application of the pesticide is necessary to attain or maintain environmental threshold standards. In addition, State and federal antidegradation policies and the Basin Plan require that water quality be maintained and protected in outstanding national resource waters. ~~, in receiving waters outside herbicide treatment areas and in all areas after treatment events, detectable concentrations of introduced chemicals are only allowable if beneficial uses are protected and maintained. Based on guidance from LWB staff, any long-term ongoing detections of these chemicals or other observed long-term lowering of baseline water quality would violate antidegradation policy.~~ Activities that lead to long-term and permanent water quality changes are not permitted in an ONRW. If pre-application sampling and analysis establishes that proposed herbicides are present at detectable concentrations in water or in sediment as a baseline condition, then compliance with antidegradation policies would be, in part, based on any elevated concentrations above baseline levels. Protection of beneficial uses is evaluated, including ~~using established USEPA methods for~~ human health and aquatic life beneficial uses ~~ecological risk assessment~~.

The introduction to Environmental Issues (page 3.1-6), Thresholds of Significance, and Metrics for Water Quality was edited as follows:

> "Water quality impacts are a primary concern for the Proposed Project, and include a variety of potential effects to physical, chemical and biological components of the Tahoe Keys lagoons. Testing the efficacy of aquatic weed control methods in improving water quality of the lagoons is a goal of the project. Although only 24% of the lagoon areas are proposed to be treated during weed control methods testing, some beneficial effects on water quality constituents can be expected in and near treatment areas. Potential adverse impacts to water quality due to the Proposed Project and Alternatives are expected to be largely short-term effects occurring during installation, removal, or performance of aquatic weed control tests. ~~Because water circulation between proposed test sites and the lake is limited and the volume of Lake Tahoe is approximately 58,000 times greater than the combined volume of the Tahoe Keys lagoons would dilute water quality effects, any changes in lagoon water quality are not expected to measurably affect greater Lake Tahoe. Therefore, water quality evaluations focus on receiving waters that must be protected within the lagoons.~~ Proposed measures to protect water quality within the lagoons would also protect ~~are expected to minimize risks of potential~~ water quality

~~impacts there and~~ in the lake. Therefore, water quality evaluations focus on receiving waters that must be protected within the lagoons."

Aquatic Biology and Ecology

The following clarifying edits were made to the introduction to Environmental Issues (page 3.1-8), Thresholds of Significance, and Metrics for Aquatic Biology and Ecology:

"While aquatic weed control will improve existing habitats (e.g., reduce cover for invasive predatory fish), it will also have potential adverse impacts to aquatic biology and ecology for both the Proposed Project and its action alternatives."

Recreation

The following clarifying edits were made to Section 3.1.1.9 (page 3.1-14):

"The potential to interfere with recreational boating by Keys property owners and their guests has been an important consideration since the preparation of the initial Exemption Application and IEC~~D~~/IS."

"Issue RE-1: Obstruction of Direct Private Access to Lake Tahoe Recreational Boating ~~Passage~~."

The following clarifying edits were made to Section 3.1.1.11 (page 3.1-16):

"Issue TR-3: Effects on Roads and Level of Service"The following correction was made to the Section 3.1.2.12 (page 3.1-20):

"Effects on water clarity are addressed under Water Quality Issue WQ-~~n~~2."

The following addition was made to Section 3.1.2.13 (page 3.1-20):

"A very extensive baseline water quality data collection effort was conducted from the late spring through fall of 2019 to document existing conditions in the Tahoe Keys lagoons with respect to water quality standards and other water quality characteristics, including temperature, dissolved oxygen, and turbidity (see Appendix E)."

SECTION 3.2: Environmental Health

PROPOSED PROJECT (CONTROL METHODS TEST)

The introduction to Methods and Assumptions (pages 3.2-1 to 3.2-3) was expanded to provide greater context for the evaluations of environmental health effects by adding the following two paragraphs:

"The DEIR/DEIS was conservative and protective by evaluating the potential effects of proposed herbicide applications at maximum allowable application rates. In the required NPDES permit and exemption to the prohibition on aquatic herbicide use in the Lahontan Basin, the Water Board may specify lower application rates such as those proposed in the Aquatic Pesticide Application Plan. The draft NPDES permit has limits on receiving water concentrations of herbicide residues that will be protective of beneficial uses.

Only the risks of acute exposure are pertinent to the CMT because the limited testing period would ensure that no chronic exposures over months or years with potential sublethal effects would occur. No chronic exposures to herbicides, defined as continuous or repeated contact with a toxic substance over a long period (months or years, CFEH 2019) would occur as part of the CMT."

The following sentences were added to provide further explanation of the assumptions for Issue EH-1:

"Drop hoses to apply liquid herbicide products, or granular products spread on the water surface within test sites, would eliminate the possibility of liquid spray drift. Because the exposure of humans to harmful concentrations of herbicides and degradants is only a potentially significant concern to workers that are handling and applying the herbicide products, potential direct exposure of other people to herbicides is not evaluated as a separate issue due to a lack of exposure pathways. For example, spray applications are not proposed, and thus adjacent residences would not be exposed to drift. Water use restrictions would be posted and noticed to potentially affected parties to protect human and animal exposure."

To provide added context for the evaluation of Issue EH-6, text appearing on page 3.2-3) was brought up into the following edits to the summary of Methods and Assumptions:

"HABs have been observed and monitored in the Tahoe Keys lagoons since 2017. Information on measured concentrations of cyanotoxins in Tahoe Keys samples were summarized from available studies and then compared to the California's Caution Action and Warning Action Triggers for cyanotoxins. Background information on the toxic effects that cyanobacteria can have, as well as the conditions that cause them, ~~wa~~is ~~provided~~summarized below. This~~e~~ DEIR/DEIS ~~is for~~addresses a program to test aquatic weed control methods;~~,~~ ~~but~~ it is not a program designed to resolve the important problem of HABs. ~~It is acknowledged that a~~Any increase in the occurrence of HABs attributable to testing aquatic weed control methods would be a significant adverse impact.~~, so the focus of t~~This evaluation ~~is~~ focuses on whether the CMT or alternatives could increase HABs occurrence."

In Section 3.2.1 under the Federal Regulatory Setting, the following information was added for USEPA Health Advisories (pages 3.2-3 to 3.2-4):

"USEPA Health Advisories USEPA recommends 10-day drinking water health advisory levels at or below 0.3 µg/L for microcystins and 0.7 µg/L for cylindrospermopsin in drinking water for children pre-school age and younger (less than six years old). For school-age children through adults, the recommended health advisory levels for drinking water are at or below 1.6 µg/L for microcystins and 3.0 µg/L for cylindrothermopsin. Young children are more susceptible than older children and adults as they consume more water relative to their body weight."

The following corrections were made to DEIR/DEIS, section 3.2.1, page 3.2-3:

"The Tier III designation of Lake Tahoe ~~(including the West and East lagoons)~~ under the State and federal Antidegradation Policies ~~requires~~ provides that states may allow some limited activities that result in temporary and short-term changes to water quality, subject to protection of beneficial uses. These changes would not be allowed to adversely affect existing uses or alter the essential character or special uses for which Lake Tahoe was designated as an ONRW. ~~As~~

~~discussed in Section 1.4.1.1, if detectable concentrations of applied aquatic herbicide active ingredients or select degradation byproducts are present longer than "weeks to months, not years" the discharges would be assessed to cause long-term water quality degradation.~~ The LWB has discretion in determining the allowable time frames for what constitutes long-term and short-term existing water quality degradation within the "weeks to months, not years" guidance from USEPA."

DEIR/DEIS page 3.2-4, Environmental Setting, Issue EH-6, the following hydroacoustic information was included to inform readers of increases found in aquatic plant biovolume at different stages of a growing season:

"A May 22, 2020, hydroacoustic survey found an average aquatic plant biovolume of 22% in the West Lagoon, compared to a July 21 biovolume of 51 to 46% and a September 17 biovolume of 68%. These data indicate that the volume of aquatic weeds that could die back and decompose in the spring could be approximately one-third to one-half the volume that would die back and decompose if treated in the summer."

The following clarifying edits were made to the Potential Impacts discussion, Issue EH-1 (pages 3.2-5 to 3.2-7).

"The registration labels and safety data sheets (SDS) for each herbicide product specify the proper methods for handling and applying the chemicals, personal protective clothing equipment requirements, and other precautions to protect workers, all of whom must be certified by the State as qualified applicators (as a resource protection measure for the CMT)."

Additional edits under Potential Impacts Issue EH-2 were made to clarify the evaluation of triclopyr:

"Triclopyr triethylamine salt rapidly dissociates into triclopyr acid in water. In natural waters, sunlight and microorganisms rapidly degrade triclopyr (WDNR 2012b; WDOE undated). The major degradants of triclopyr acid are trichloropyridinol (TCP) and 3,6, DCP, and both are potential exposure concerns (Lewis et al. 2016). Additionally, the degradants 5-CLP and 6-CLP could also be exposure concerns in some aerobic aquatic ecosystems. Triclopyr's eventual, final degradant is carbon dioxide (CO_2) (WDOE undated). ~~To get there, triclopyr typically breaks down into trichloropyridinol (~~TCP~~), a compound that itself~~ is far less persistent than triclopyr in aquatic ecosystems, as seen in field studies (WDOE undated)."

Also in the Potential Impacts discussion for Issue EH-2, the following information was added regarding degradants of endothall:

"Endothall is applied as a dipotassium salt or an alkylamine salt and breaks down quickly to endothall acid, which is the active herbicide."

The following edits were made to the Potential Impacts discussion, Issue EH-3 to provide additional information pertinent to the evaluation of effects (page 3.2-9):

"None of the metabolites or degradants of the three herbicides have been identified as having a higher potential toxicity than the parent compounds (MDA 2018; WDNR 2012a; WDOE undated). Some commercial triclopyr products may be composed of 40 to 50% triclopyr acid or salt and 50 to 60% inert ingredients or surfactants. Some of the additives in triclopyr products have been shown to

be more toxic to humans and other animals than triclopyr itself; however, these more toxic ingredients are not in the formulation for the Renovate 3 or Renovate OTF products proposed for testing at Tahoe Keys. There are no Renovate 3 or Renovate OTF impurities or inert ingredients identified by the manufacturers or the USEPA which are known to be of toxicological or environmental concern (WDOE 2001)."

"Regarding the potential for people to be affected by herbicides through drinking water, there are no direct raw, potable water intakes located within or adjacent to the Tahoe Keys lagoons (TKPOA 2018). The product label for Reonovate 3 (active ingredient triclopyr) states precautions for potable water intakes at lake applications, including setback restrictions of up to 500 feet for applications less than 4 acres. As noted above, the nearest Lake Tahoe public drinking water intakes are four miles to the east near Lakeside East (TKPOA 2018), and one mile west, at the Jameson Beach community north of Pope Marsh. Furthermore, a recent hydrological investigation determined that beneath the Tahoe Keys, groundwater shallower than about 40 feet below the ground surface is in communication with the lagoons, but deeper groundwater is not connected to surface waters due to a local confining layer between the shallow aquifer zone and the underlying water-supply aquifer (Alward 2016). Three wells are located within the lagoons, drawing from 150 to 430 feet below the ground surface (TKPOA 2018). 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.

"Water treated with triclopyr should not be used for drinking water until concentrations are less than 0.4 ppm (USEPA 2016). USEPA (2016) calculated and required setback distances from the application site to the functional potable water intake to maintain average drinking water triclopyr concentrations below 0.4 ppm. Since potable water intakes are required to be turned off until triclopyr concentrations are below 0.4 ppm, the USEPA determined that 0.4 ppm is the appropriate concentration to use for acute and chronic dietary risk assessments of triclopyr in drinking water. The drinking water standard for endothall is 0.1 ppm (USEPA 2018), while there are no restrictions for using water treated with florpyrauxifen-benzyl for drinking (USEPA 2017b). Maximum allowable application rates are 2.5 ppm for triclopyr, 5.0 ppm for endothall, and 0.05 ppm for florpyrauxifen-benzyl (TKPOA 2018)."

"Because only a 25-fold dilution of the maximum application rate for endothall and a six-fold dilution of the maximum application rate for triclopyr would bring concentrations down to drinking water standards, those amounts of dilution would occur within the lagoons – within or near treatment areas. Furthermore, the proposed double curtain containment barriers are capable or retaining 98-99% of dissolved materials (such as herbicides) for at least 12-14 days (Anderson 2016), and would be used to prevent the herbicides or their degradants from entering Lake Tahoe (TKPOA 2018). The bubble curtain, operating in the channel that connects the West Lagoon to Lake Tahoe, could also impede the migration of dissolved materials. ~~Therefore~~All factors considered, the use of the herbicides at maximum allowable application concentrations would not require water use restrictions or pose a risk to drinking water quality in Lake Tahoe or the Tahoe Keys, and there would be a less than significant effect on drinking water supplies. (See also Utilities Issue UT-1.)"

In the discussion of Potential Impacts for Issue EH-4, the following edits were made to clarify USEPA toxicity classifications for triclopyr (page 3.2-10).

> "Compounds with acute values >100 ppm are classified as "Practically non-toxic" (~~the best possible~~least toxic rating), while compounds with acute values of 10-100 ppm are classified as "Slightly toxic" (second ~~best~~ least toxic classification)."

Regarding the potential toxicity of endothall to non-target aquatic plants, the following sentence was added in the discussion of Potential Impacts of endothall for Issue EH-4: (page 3.2-10)

> "Jones et al. (2012) found that repeated early season endothall treatments generally did not result in an overall loss of the number of native macrophyte species or decreased diversity of the native plant community in treated lakes."

The second paragraph in the discussion of Potential Impacts for Issue EH-5 was edited as follows to include information on fish avoidance of turbid water (page 3.2-13)

"There is the potential for short-term aquatic toxicity within and near test areas, arising from aluminum toxicity due to sediment disturbance during installation, startup and removal of LFA systems; during the installation and removal of bottom barriers; and during spot suction dredging. There also could be an increase in the water column concentrations of aluminum from accidental spills during the handling and transport of dredge spoils from spot suction dredging. The potential for concentrations of aluminum to reach levels associated with toxicity to aquatic life would be a function of the amount of sediment-caused turbidity in the water. Cold water fish and other aquatic life that are sensitive to aluminum are also sensitive to elevated turbidity. Avoidance is the primary behavioral response to locally turbid water (DeVore et al. 1980, Birtwell et al. 1984, Scannell 1988). All life stages of salmonids have been observed to prefer clear water when given the option of clear or turbid water (Bisson and Bilby 1982). By avoiding areas with high turbidity aquatic life would also be avoiding areas where aluminum may also be elevated. ~~However, s~~Sediment-disturbing activities would be limited to small areas within the lagoons, and any fish in those areas would likely have been already scared away by test activities, thus leading mobile species to avoid exposure to ~~any~~ elevated aluminum concentrations."

The following clarifying edits were made in the discussion of Potential Impacts for Issue EH-6 (page 3.2-14):

"Factors that influence the occurrence of cyanobacteria blooms can include excess nutrient (nitrogen and phosphorus) loadings and concentrations, stagnant or 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). Most of these factors have been documented as present in the Tahoe Keys lagoons during 2019 baseline monitoring and other studies. Some of the factors that influence the occurrence of blooms could be affected by the application of aquatic herbicides or other methods 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."

"Although it is difficult to know if the CMT would affect the occurrence and intensity of HABs, the potential is there. Unlike the aquatic weeds Eurasian watermilfoil and curlyleaf pondweed, algae and cyanobacteria take nutrients primarily from the water and not the sediments."

In the third paragraph of the discussion of Potential Impacts for Issue EH-6, information was added to clarify that the nutrients may be released to lagoon water from plant decay more rapidly following UV light treatments than herbicide treatments:

"Paoluccio (2020b) observed that plants took about 16 days to collapse after UV light treatment, and then a couple of more days to turn into a fine powder due to the UV radiation destroying plant cells. This information indicates that plant decay and nutrient release could occur more rapidly from UV light treatment than herbicide treatment."

ACTION ALTERNATIVE 1: TESTING NON-HERBICIDE METHODS ONLY

In the fourth paragraph of the discussion of Potential Impacts for Issue EH-6, the following information was added regarding mitigation measures (page 3.2-18):

"The many workers involved in implementing and monitoring the CMT would all be trained to recognize the visual indicators for HABs, and any occurrence of HABs at test sites would be quickly recognized and sampled for cyanotoxins. If cyanotoxins at test sites approached danger levels, the test site would be treated with a bentonite clay product containing the rare earth mineral lanthanum (e.g., Phoslock). This product would be applied to the surface of the lagoon water where it would chemically bind available phosphorus molecules in the water column as it settled to the bottom, making this essential nutrient no longer available for cyanobacteria growth."

The following edits were made to the final paragraph in the discussion of Potential Impacts for Issue EH-6 to clarify that mitigation measures would render the potential impacts from increased HABs occurrence to be considered less than significant:

"However, given the timing of testing and with ~~resource protection~~mitigation measures ~~that have been incorporated into the Proposed Project~~ (i.e., aeration or Phoslock) available to implement in the event of a HABs occurrence at a test site, the risk of adverse impacts from increased HABs is considered less than significant."

The introductory paragraph for Mitigation and Resource Protection Measures for the CMT was revised as follows to distinguish between the resource protection measures that were included as part of the Proposed Project in the APAP and the mitigation measures that were identified through the environmental evaluation as important to reduce potential adverse effects to levels less than significant (page 3.2-15):

"While no direct impacts to humans are expected from the CMT, resource protection measures are required to protect workers applying herbicides (i.e., herbicide applicator qualifications) and address public concerns regarding potential migration of herbicides toward drinking water supplies and Lake Tahoe (i.e., spill response plan for herbicides, dye tracing, timing of treatments, well monitoring and contingencies, West Channel monitoring and contingencies, public outreach, carbon filtration contingency). These resource protection measures were identified by TKPOA in the APAP (TKPOA 2018f). Double turbidity curtains were added to further impede the movement of herbicides toward drinking water supplies. The a~~A~~dditional mitigation ~~and resource protection~~ measure~~s~~ of treating test sites with a bentonite clay/lanthanum product would be ~~are~~ required to minimize the risks of indirect human health impacts from the potential for increased HABs and exposure to cyanotoxins if HABs are observed at test sites during the decomposition of aquatic plants following weed control treatments. Mitigation and resource protection measures are also required to reduce the potential for ecological effects, both direct and indirect. The timing and limited extent of the CMT are

mitigation measures that would protect water quality and limit effects on non-target plants and animals to groups of individuals and not the entire community of aquatic life in the lagoons. Additional mitigation requirements include real-time monitoring of turbidity, and dissolved oxygen to verify compliance with permit limits and trigger changes in the work or BMP implementation to protect aquatic life. BMPs to limit sediment disturbance would be additional mitigation required to meet turbidity limits and protect aquatic life against potential aluminum toxicity. Aeration is a mitigation measure that would be implemented at test sites if aquatic plant decomposition causes non-compliance with DO limits or if monitoring shows it is necessary to accelerate aerobic microbial degradation of herbicides. ~~The mitigation and resource protection measures described below would be incorporated as conditions of the TRPA EIP permit and NPDES permit issued by the LWB, to reduce or mitigate the potential for adverse ecological and human health effects, without reducing the efficacy of the methods.~~Monitoring required by the NPDES permit and MMRP would be the responsibility of the permittee, who may use contractors at their discretion. Data collection must follow a Quality Assurance Project Plan that has been reviewed and approved by the LWB."

The Mitigation and Resource Protection Measures discussion for the CMT Resource Protection Measure EH-3b was edited as follows to align with the Proposed Project description in the APAP (page 3.2-16):

"If herbicides are detected in nearby wells, contingency plans include ~~shutting off the wells and~~notifying residents and distributing drinking water to all users until residues are no longer detected in the samples."

The following information was added to the description of Resource Protection Measure EH-3c: page 3.2-16):

"Research of contract laboratory capabilities indicate that 0.001 ppm is the lowest reliably obtainable detection limit for reporting concentrations of the proposed herbicide active ingredients and their degradants in water, and 0.010 ppm is the lowest reliable reporting limit for these chemicals in sediment."

The clarification on herbicides detection limit was also added parenthetically to the description of Resource Protection Measure EH-3d (pg 3.2-16):

"If herbicides are detected (0.001 ppm detection limit) within the West Channel, then additional monitoring stations would be sampled outside the Tahoe Keys in Lake Tahoe and monitoring would continue south and north of the channel (TKPOA 2018)."

The description of Resource Protection Measure EH-3f was edited to include the herbicides detection limits and also clarify the contingency actions that are identified as part of the project description in the APAP (page 3.2-16):

"If monitoring detects herbicide residues (0.001 ppm detection limit), carbon filtration systems already installed at water supply wells would remove any herbicide residues before water enters the distribution systems at Tahoe Keys. ~~A~~ Residents/home owners would be notified and a mobile filtration system would ~~also be available to~~ pump and treat water at wells ~~where exceedances~~if herbicides are detected ~~above drinking water standard concentrations~~."

For the description of Resource Protection Measure EH-3g, additional information was included from research on the performance of double turbidity curtains (page 3.2-16 and 3.2-17):

"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 disolved 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. 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 (see measure EH-3b). 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."

The following information was added to the description of Mitigation Measure EH-5a on page 3-2-17 to further describe and provide examples of Best Management Practices (BMPs):

"BMPs would be included in permit conditions for any CMT or Action Alternative approved by the TRPA and LWB. 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. Rather than prescribing BMPs in advance, turbidity limits would be performance standards in implementation contracts and the contractors would have leeway in determining how they could best meet performance standards. In the case of deploying LFA systems or bottom barriers, BMPs could entail changing the equipment or methods used for placement. During removal of bottom barriers or during diver assisted suction/hand pulling or spot suction dredging, BMPs could entail divers working more slowly and carefully to minimize sediment disturbance. As described on page 3.3.4-54 of this DEIR/DEIS, the TRPA BMP Handbook provides BMPs for hydraulic dredging and the use of turbidity curtains. BMPs for hydraulic dredging include managing cutter-head rotation and swing speed and limiting sediment removal in maximum lifts equal to 80% or less of the cutter-head diameter. BMPs for turbidity curtains include design and installation considerations, and inspection and maintenance practices."

The following clarification was added to the description of Mitigation Measure EH-6a (page 3.2-17):

"The total area of herbicide and UV light test sites where plant mortality and nutrient release are expected would be less than 17% of the Tahoe Keys area."

Proposed Project, Mitigation Measure EH-6b Aeration (page 3.2-17) was revised as follows to clarify that aeration systems would be deployed after aquatic plant die-back:

"LFA or another aeration technology would be installed and operated within each herbicide test site ~~immediately~~ after target aquatic weeds die back from the herbicide application, to be in place during plant decomposition. Aeration is expected to improve conditions for aerobic microbial degradation ~~of herbicide active ingredients, and also~~ 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~~., and aeration would also continue through the summer and early fall to reduce oxygen depletion from plant decay.~~"

Proposed Project Mitigation Measure EH-6c was added to describe the application of lanthanum-modified clay that could be used to remove phosphorus from the lagoon water if an increased occurrence of HABs is identified during test site monitoring (page 3.2-17):

"EH-6c Bentonite Clay with Lanthanum: In the event that HABs occur at a test site in response to nutrients released during the plant decomposition that is expected to follow dieback from herbicide or UV 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 phytoplankton, effectively starving the HAB of an essential nutrient."

Under section 3.2.2 Action Alternative 1 (Testing Non-Herbicide Methods Only), (page 3.2-18) impact title has been corrected; "Issue EH-6c: Harmful Algal Blooms (HABs)".

To clarify the importance of the potential issue, the following sentence was added to the discussion of potential impacts for Action Alternative 1, Issue EH-6c (page 3.2-18).

"Paoluccio (2020b) observed that plants took about 16 days to collapse after UV light treatment, and then a couple of more days to turn into a fine powder due to the UV radiation destroying plant cells. This information indicates that plant decay and nutrient release could occur more rapidly from UV light treatment than herbicide treatment, so there would be some potential for increased HABs occurrence under Action Alternative 1."

The following clarifying edits to Proposed Project Issue EH-6 potential impacts for Action Alternative 1: (page 3.2-18)

"Because the potential for toxicity impacts to aquatic life would be limited to only a small part of the Tahoe Keys lagoons and those potential impacts would be minimized by fish avoiding disturbed areas, the potential impact of Action Alternative 2 on overall aquatic biological communities in the lagoons would be less than significant and these areas would be rapidly repopulated."

Action Alternative 2: Tahoe Keys Lagoons Suction Dredge and Substrate Replacement

In Section 3.2.3 Action Alternative 2 (Tahoe Keys Lagoons Suction Dredge and Substrate Replacement), the following clarifying edits were made to Mitigation Measure EH-5b: 3.2.3 Action Alternative 2 (Tahoe Keys Lagoons Suction Dredge and Substrate Replacement) (page 3.2-20).

"Dewatering effluent arising from spot suction dredging could be treated and discharged to the sanitary sewer system or into Lake Tallac. Before any effluent is discharged to Lake Tallac, it would be tested to ensure that aluminum levels comply with water quality criteria for aluminum. Discharge to the sanitary sewer system would likely also likely require testing to assure pre-treatment requirements specified by the wastewater utility were met for aluminum and other water quality constituents. Acceptance of treated dewatering effluent by the STPUD would be a decision of their Board of Directors."

To provide more information on the performance of turbidity curtains, the following information was added to the description of Mitigation Measure EH-5d for Action Alternative 2 (page 3.2-20):

Mitigation and Resource Protection Measures

Under subsection Mitigation and Resource Protection Measures (pages 3.3.1-7 to 3.3.1-8), the following changes have been made:

Mitigation for bulkhead/dock stabilization and dredge/spill containment (ER-1) is described below. Any bulkheads or docks removed or destabilized by dredging would be fully mitigated by replacing them in kind, and any slopes that are destabilized would be mitigated by slope restabilization after the dredging test is completed. The docks are generally supported on small-diameter pipe posts (i.e., 4-inch diameter steel pipe) that can be extracted and replaced, or left in place during construction, at the contractor's option. Several of the docks have larger-diameter piles that are not extractable but should have sufficient lateral and vertical capacity that they are not expected to be affected by 2 to 3 feet of excavation. Piles would need to be replaced if they were removed but would otherwise not be expected to require replacement unless they have excess corrosion or rot that prevents their re-use. There are no significant bulkhead walls in area 28, and the few walls at that site are not of a height that should be affected by bottom dredging. Ninety percent of the perimeter of area 30 are sheetpile bulkhead walls that are in good condition and dredging of 1 to 2 feet of loose material is not expected to result in failure of the walls. In area 29, 200 feet of bulkhead wall have been recently replaced and this segment of the wall is in good condition (not expected to fail) but there is another 200 feet that is currently leaning and failing due to corrosion of the metal sheets and loss of support due to disconnected wire rope tiebacks. Performance criteria for bulkhead stability would require collaboration with property owners. Typically, bulkheads which change their lean less than 2 degrees or displacement of less than 1/2 inch would be considered unaffected by the dredging operation. Contractual language would be inserted in the project documents to ensure that repairs are performed.

Mitigation and resource protection measures would address the potential effects of spills in the dredge handling area at the WTP through the installation of containment barriers and impermeable layers. The effects of spill in transport would be remediated by clean-up operations. The dredge material would have substantially the same composition as sediments along the pipeline routes. Turbidity curtains or containment booms would be in place to contain spill or leak sediments. If spills or leaks occur, the material deposited would be dredged to at least the pre-spill mud line to remove the excess materials. Turbid water due to a spill could be run through the dredge spoils treatment and handling system. Performance specifications in contract documents would require that the contractor meet performance criteria rather than specifying means and methods for pipeline control and spill prevention.

Speed limits and travel restrictions would be placed on roads used for dredge spoil transportation and disposal to reduce the potential for releases due to collisions and other accidents. With the exception of the state and U.S. highways, posted speed limits on the streets along the proposed truck route range from 25 to 30 miles per hour. Traffic and Transportation Mitigation Measure TR-3a lists additional restrictions that could be imposed by the City of South Lake Tahoe Public Works Department, if Action Alternative 2 is implemented. These additional restrictions, if imposed by the City, could include limitations on truck operations to non-peak travel times and outside hours of school pick-up and drop-off, to reduce risk of vehicle conflicts. These additional restrictions would need to be in place for at least six months based on current understanding (see section 3.4.4).

SECTION 3.3.3—Hydrology

The first bullet under Methods and Assumptions was edited as follows to correct the information provided about the gate structure between Lake Tallac and the West Lagoon: (page 3.3.3-1).

"There is a single gate structure between Lake Tallac and the West Lagoon that has not been operated for several years. The gate was tested one day in the summer of 2020 to verify that it is still functional~~, but it has not been operated recently to release water to the West Lagoon occasions when a gate is lowered to relieve localized flooding upgradient from Lake Tallac.~~"

The third bullet under Methods and Assumptions was edited as follows to correct and provide more details about the hydrologic connections between Lake Tallac and other water bodies (page 3.3.3-1).

"~~Tallac Creek (i.e., Lake Tallac) is listed in the Basin Plan as a perennial stream tributary to Lake Tahoe.~~ Lake Tallac drains to Pope Marsh through a weir. The direct hydrologic connection to Lake Tahoe is seldom present, and occurs at a spillway from Pope Marsh at the west edge of the Tahoe Keys. The spillway is ~~only~~ breached manually only when flooding occurs on Jameson Beach Road. Otherwise, ~~so~~ there is ~~typically~~ no direct surface water connection between Lake Tallac and Lake Tahoe. Thus, the receiving waters for Lake Tallac would more accurately be designated as Pope Marsh. In contrast, the West Lagoon and East Lagoon have direct hydrologic connections through connecting channels to Lake Tahoe.~~e~~Lake Tallac drains to Pope Marsh through a gate, and during high water levels Pope Marsh overtops Pope Beach and drains into Lake Tahoe."

To provide more detailed information on the gate structure between Lake Tallac and the West Lagoon, the following edits were made to Hydrologic Connections, Issue HY-1 on page 3.3.3-2).

"The gate structure between Lake Tallac and West Lagoon is owned and operated by TKPOA. The gate, Dam Number 4469-0, is regulated by the California Department of Water Resources, Division of Safety of Dams. At the request of the Division of Safety of Dams, the gate was tested one day in the summer of 2020 to verify that it was still functional, but it has not been operated recently to release water to the West Lagoon. On rare occasions, the ~~City of South Lake Tahoe~~ weir gate may be temporarily opened~~s the weir gate~~ to relieve localized flooding upgradient from Lake Tallac."

Under Mitigation and Resource Protection Measures for HY-1, the following edits were made to provide consistency in formatting and further describe circumstances for implementing the measure:

"HY-1 Disposal of Dewatering Effluent Exporting a fraction of the partially treated water stored from suction dredging to the sanitary sewer system would reduce impacts to the hydrology of the interconnected waterbodies. However, the sanitary sewer system experiences the highest loading during periods of spring and early summer melt and may not be available as discharge alternative. Therefore, as an alternative measure, the routing of treated dewatering effluent to Lake Tallac could be limited to the late summer-early fall months, reducing hydrologic impacts by discharging only when water levels tend to be lower after the snowmelt season has ended and the risk of contributing to flood conditions would be negligible. Monitoring the water level in Lake Tallac would verify when there was capacity for discharging treated effluent. If an unusual storm occurred during the project, then suction dredging could be suspended until the high water receded."

SECTION 3.3.4—Water Quality

Proposed Project

Under Methods and Assumptions for Issue WQ-6 (page 3.3.4-37), the following sentence was revised for clarity:

> "The cycling of nutrients into the water column from the decay of aquatic plants is the focus of this impact evaluation because the CMT and project alternatives would test the effectiveness of methods to kill aquatic weeds and would not have the potential to alter external nutrient ~~sources~~inputs. Plant biomass estimates were based on Tahoe Keys macrophyte survey biovolumes and literature values, and the release rate of phosphorus from decaying plant tissue was based on a thesis study at Tahoe Keys (Walter 2000)."

The following clarifying edits were made to the Methods and Assumptions for Issue WQ-7 (page 3.3.4-3)

> "The methods and assumptions for evaluating potential changes to total nitrogen ~~changes~~ in the water column were essentially the same as those described for total phosphorus. The release rate of nitrogen from decaying plant tissue was assumed to be the same as reported for phosphorus in a ~~the~~ above-referenced thesis study at Tahoe Keys."

In section 3.3.4.1, Proposed Project (Control Methods Test), subsesction Water Quality Certification and Waste Discharge Requirements for Tahoe Keys Property Owners Association the following reference citation was added to the description of requirements for TKPOA's Water Quality Certification and Waste Discharge Requirements (page 3.3.4-6).

> "The WDRs require a Nonpoint Source Water Quality Management Plan to address land-based direct sources not captured by the stormwater system (TKPOA 2018c)."

The following corrections were made to State and USEPA Antidegradation Policies discussion (section 3.3.4.1, page 3.3.4-4)

> "The Tier Three designation of Lake Tahoe ~~(including the West and East lagoons)~~ under the federal Antidegradation Policy and related regulatory requirements are explained in detail in Section 1.4.1. This designation ~~requires~~ provides that states may allow some limited activities that result in temporary and short-term changes to water quality, but such changes should not adversely affect existing uses or alter the essential character or special uses for which Lake Tahoe was designated as an ONRW. The ~~detectable presence of any introduced chemicals above background concentrations, or any~~ lowering of water quality as a result of project activities for more than a short-term period (i.e., "weeks to months, not years") is not allowed."

The following edits to Environmental Setting, Issue WQ-6: Water Temperature Effects (page 3.3.4-7) clarify sources of phosphorus to lagoon water:

> "The primary external sources of phosphorus in Tahoe Keys lagoon water were from stormwater/irrigation and groundwater inflow. The primary internal source and the overall dominant source of phosphorus to lagoon water was from submerged aquatic vegetation decomposition."

> "Contributing sources of TP to the lagoon waters are both internal (e.g., aquatic plant decomposition, sediment flux) and external (e.g., stormwater/irrigation, groundwater inflow). Aquatic plant decomposition accounts for the dominant source (79%) of phosphorus loads the West Lagoon (Figure 3.3.4-16)."

"It should be noted that the TP in lagoon waters from decomposing aquatic plants is initially from sediments, as the nutrient pools of sediments are the primary source for all the aquatic plant species encountered, other than coontail."

The Environmental Setting for Issue WQ-6 was edited in two places to clarify that the sixth paragraph addressed sources of nitrogen to lagoon water:

"Similar to TP, contributing sources of TN to lagoon waters can be both internal and external to the Tahoe Keys West Lagoon and Lake Tallac." "It should be noted that the TN from decomposing aquatic plants in lagoon waters originates from sediments, as the nutrient pools of sediments are the primary nutrient source for all the aquatic plant species encountered, except coontail which is a floating macrophyte that obtains nutrients primarily from the water column."

To to clarify that plants would be left in place following die-back from CMT treatments, edits to DEIR/DEIS Potential Impacts, Issue WQ-5: Changes in Dissolved Oxygen Concentrations. (page 3.3.4-35) were added as follows:

"Because greater environmental impacts would result from attempts to dredge or otherwise remove plants following dieback from aquatic herbicide or UV light treatments, the dead plants would be left in place."

The sixth paragraph of the Potential Impacts discussion for herbicide testing Issue WQ-5 (page 3.3.4-40) was edited as follows to explain that aeration following aquatic weed die-back at herbicide testing sites could be deployed as needed based on real-time DO monitoring:

"Furthermore, ~~the use of LFA or other~~ an aeration system could be deployed ~~te~~to aerate the water during the period of plant decay at ~~chnology at each~~ herbicide test sites if necessary to avoid significant DO impacts, based on real-time monitoring.~~following plant dieback is expected to offset the effect of BOD from decaying plants and deliver oxygen and beneficial circulation that will improve the current conditions of hypoxia in deeper lagoon waters. An additional benefit is that~~ B~~b~~y killing aquatic plants in the late spring, there would be much less plant biomass in the fall that would naturally die back and consume oxygen during decomposition, so overall the herbicide applications could result in less BOD from plant decay within test sites over the course of the year."

On page 3.3.4-41, the second paragraph of the Potential Impacts discussion for UV light treatment Issue WQ-5 was edited to clarify that aeration systems that could be deployed after UV light treatment would not be limited to LFA systems:

"If real-time monitoring indicated that DO was not meeting permit requirements at a test site, an ~~LFA or other~~ aeration system could be deployed to aerate the water during the period of plant decay and ensure that DO impacts were not significant."

The first sentence under Mitigation and Resource Protection Measures (page 3.3.4-48) was edited as follows to clarify primary resource protection measures that were part of the project design:

"The primary resource protection measures to minimize potential adverse effects on water quality were built into the project design and have to do with the timing and limited extent ~~size~~ of testing under the Proposed Project."

Also on page 3.3.4-38, a second paragraph describing specific water quality issues was revised in Mitigation and Resource Protection Measures summary text:

"In addition to these resource protection measures, ~~additional~~ mitigation measures can be implemented as needed based on real-time monitoring data collection during project implementation. These mitigation measures include changes in the methods or pace of work to meet permit limits for temperature, turbidity, and pH, or operation of aeration systems at treatment sites during the period of aquatic plant decomposition to meet permit limits for DO."

The description of Mitigation and Resource Protection Measures for Issue WQ-5 (page 3.3.4-50) was edited as follows to explain that aeration following aquatic weed die-back at herbicide testing sites could be deployed as needed based on real-time DO monitoring:

~~"LFA or other~~ Aeration systems will be deployed in herbicide or UV light test sites immediately after plant dieback ~~not only to increase aerobic microbial degradation of the herbicides but also~~ to offset the potential for BOD from plant decomposition that could cause low DO impacts if real-time monitoring indicates that DO permit limits would not be met. If real-time monitoring indicated that DO was not meeting permit requirements (e.g., DO saturation depressed by >10% in lagoon receiving waters outside an ultraviolet light treatment area, measured one foot above the sediment surface), an ~~LFA~~ aeration system would also be deployed there to aerate the water during the period of plant decay and ensure that DO impacts were not significant. ~~Water temperature~~DO monitoring could be performed by TKPOA water quality staff or their contractors, following all project monitoring requirements. LWB will review reports and do compliance follow-up as needed."

Action Alternative 1

The following edits were made to the first paragraph in Action Alternative 1 to improve clarity (page 3.3.4-50):

"This section describes the regulatory setting and environmental setting for testing non-herbicide aquatic weed control methods, evaluates potential water quality effects from each control method proposed for testing (i.e., ultraviolet light treatment and LFA as Group A methods), proposes resource protection and mitigation measures to limit adverse effects, and identifies any significant unavoidable adverse impacts. The same Group B methods described for the Proposed Project would be available for use under Alternative 1. Issue WQ-3 is not discussed for Action Alternative 1 because dispersal of aquatic weed fragments by testing ultraviolet light treatment, LFA, or Group B methods is not a potentially significant concern."

The following edits to Issue WQ-4 Potential Impacts, Action Alternative 1 on page 3.3.4-51 are as follows:

"Because of the ~~relative~~relatively small quantities of acetic acid that would be applied, dilution within test sites, and buffering capacity of the water, changes in pH directly from acetic acid would be less than significant."

Action Alternative 2

The following minor edit was made to the first paragraph for Action Alternative 2 to provide formatting consistency:

"This section also evaluates potential water quality effects, proposes mitigation measures to limit adverse effects, and identifies any significant unavoidable adverse impacts from these activities. Issue WQ-1 is not discussed under Action Alternative 2 because suction dredge and substrate replacement tests do not have the potential to significantly affect water temperature."

For convenience of the reader, the Environmental Setting for Action Alternative 2 Issue WQ-6 was edited as follows to call attention to a table footnote:

"These sample concentrations may underestimate actual concentrations in West Lagoon sediments because ~~some~~ one of the samples were diluted with site water during sample collection (see footnote in Table 3.3.4-5: excluding the TP result from W4, the average concentration in West Lagoon sediment samples was 898 mg/kg)."

SECTION 3.3.5—Aquatic Biology and Ecology

Methods and Assumptions

On page 3.3.5-2, the following sentence was added to the Methods and Assumptions AQU-2: Competitive Exclusion of Aquatic Macrophytes Due to Increased Growth of Curlyleaf Pondweed.

"It was also assumed that the issues of Eurasian watermilfoil hybridization and development of resistance to aquatic herbicides that have been documented at some lakes with many years of repeated herbicide treatments (Thum et al. 2017) would not be an issue with the one-time test proposed at Tahoe Keys."

Potential Impacts

In the discussion of Potential Impacts for Herbicides (page 3.3.5-22), the following information was added under Issue AQU-1:

"Skogerboe and Getsinger (2002) suggested that with controlling the application rate to below the label rate, you could be effective in controlling Eurasian watermilfoil and curlyleaf pondweed, and some native plants have a better recovery than non-native plants."

In the discussion of Potential Impacts for UV Light (page 3.3.5-24), the following information was added under Issue AQU-1:

"Similar to the effects of herbicide treatments, the use of UV light would impact stems but has not been demonstrated to impact roots or other reproductive structures in the sediment."

To provide consistency in formatting and clarify the distinction between resource protection measures and mitigation important to addressing potentially significant impacts, the Mitigation and Resource Protection Measures section for the Proposed Project was revised as follows:

"AQU-1 Macrophyte Surveys: Following Spring 2021 macrophyte surveys, the project proponent may propose adjustments to the aquatic weed control testing to better target dense beds of target species and avoid native plant communities. The pre-project macrophyte surveys are a resource protection measure included in the 2018~~18~~20 APAP (TKPOA 2018f), and also a mitigation measure necessary to address potentially significant effects described under Issues AQU-1, AQU-3 and AQU-4. Any adjustments to the treatment locations would be proposed by the project proponent after spring macrophyte survey data are compiled ~~and~~ require approval by LWB and TRPA staff before herbicide or ultraviolet light testing begins. No other mitigation or resource protection measures are proposed for aquatic macrophytes, aquatic BMI, fish, or AIS, as no potentially significant impacts are expected to occur."

SECTION 3.3.6—Terrestrial Biology and Ecology

Action Alternative 2

Under the Environmental Setting for Action Alternative 2 (page 3.3.6-30), identification of the local wastewater utility was corrected as follows:

> "The general environmental setting for Action Alternative 2 is the same as for the Proposed Project. Under Action Alternative 2, three sites within the western lagoon would be dredged, and dewatering effluent could be discharged to the ~~City of South Lake Tahoe~~ STPUD sanitary sewer system or to Lake Tallac and ultimately Pope Marsh."

SECTION 3.4—Built / Human Environment

SECTION 3.4.1—Utilities

The following edits were made to this section:

Global edit: "~~Glenbrook~~ General Improvements District" changed to "Kingsbury General Improvements District"

Proposed Project / Regulatory Setting, (page 3.4-10)

"In California, as of 2014 the administration of the Drinking Water Program (DWP) has transferred from the Department of Public Health (DPH) to the California State Water Board (SWB), Division of Drinking Water (DDW). The DDW establishes drinking water standards for contaminants. Division of Drinking Water (DDW) District 9 includes El Dorado County and water systems on the California side of Lake Tahoe."

Filtration Exemption (page 3.4-11)

"The nearest known Lake Tahoe drinking water intake to the Tahoe Keys is at Lakeside Park Association, approximately four miles distant. The nearest intake for a water system operating under filtration exemption is a little further (Edgewood Water Company or ~~Glenbrook~~ Kingsbury General Improvement District, about 4.1 to 4.2 miles)."

Section 3.4.3—Traffic and Transportation

On page 3.4-17, **Proposed Project, Regulatory Setting, Federal** subheadings moved from before Table 3.4.3-1: Total Truck Trips to after Table 3.4.3-1.

Potential Impacts subheading / Issue TR-1: Generation of New Daily Vehicle Trips (page 3.4-21); edits to text as follows:

"The Proposed Project would not generate any new, permanent and ongoing vehicle trips beyond the duration of the CMT. With fewer than 100 net new daily trips, the short-term impact of the Project would be insignificant pursuant to the definitions contained in Chapter 65, section 65.2 of the TRPA Code of Ordinances. The Proposed Project's vehicle trips would also fall below ~~and~~ Caltrans' and OPRs recommended 110-trip screening criteria for projects with potentially significant VMT impacts requiring further study. The Proposed Project would have a less than significant impact."

Potential Impacts subheading / Issue TR-1: Generation of New Daily Vehicle Trips (page 3.4-24) text revised as follows:

"However, as with the Proposed Project, these contractor and truck trips would be temporary, would last only for the duration of the dredge and substrate replacement work, and would not constitute a persistent and long-term increase in vehicle trips on the local road system. With fewer than 100 net new daily trips, the short-term impact of Action Alternative 2 would be insignificant pursuant to the definitions contained in Chapter 65, section 65.2 of the TRPA Code of Ordinances. The number of new daily vehicle trips generated by Action Alternative 2 would also fall below Caltrans' and OPR's recommended 110-trip screening criteria for projects with potentially significant VMT impacts requiring further study. ~~and State-recommended screening criteria for potential traffic impacts~~. In the long term, Action Alternative 2 would not generate any new, permanent and ongoing vehicle trips. Thus, Action Alternative 2 would have a less than significant impact."

Under the No Action Alternative / Potential Impacts / Issue TR-1: Generation of New Daily Vehicle Trips (page 3.4-26) paragraph revised as follows:

"As the No Action Alternative maintains existing operations for aquatic weed abatement, this alternative would generate no new trips or VMT beyond those presently occurring into and within the Tahoe Keys development. As existing trip generation would not change, the No Action Alternative would have no impact."

Section 3.4.4—Noise

Potential Impacts text under Action Alternative 2, Issue NO-1 (page 3.4-30 of the DEIR/DEIS) has been revised as follows:

"Issue NO-1: Short-Term Noise Associated with Dredging and Substrate Replacement. Generally, the noise generated by dredging and dewatering equipment for the project would be similar to ambient daytime noise in an active marina, typical of the project area. As described in Section 3.4.~~4~~ 3, road and water traffic associated with the project, and the noise that result from it after implementation of Mitigation and Resource Protection Measures, will occur for a limited duration and are not expected to result in a significant change in the overall noise generated by transportation activities in the project area. These would be considered "construction" type noise effects for the purposes of mitigation. There are no applicable quantitative regulatory requirements limiting temporary increases in noise levels due to this type of activity. Also, considering that noise levels would be intermittent, non-stationary, attenuated by distance to receptors, and the project would comply with County code and TRPA ordinance per Mitigation and Resource Protection Measures NO-1 and NO-2, any temporary increase in noise levels at the nearest sensitive receptors (residences) would be less than significant with mitigation incorporated."

Section 3.4.5—Cultural Resources

The following edits were made to "Methods and Assumptions subsection on page 3.4-32:

"CR-1: Sensitivity to traditional Native American resources and values. Recommendations for addressing tribal concerns include developing an Unanticipated Discovery Plan, Awareness Training for workers, and an associated Tribal Cultural Resources Awareness brochure will be included in a Proposed Project Mitigation Monitoring Plan. The Unanticipated Discovery Plan will include guidelines that a qualified cultural resources specialist, in conjunction with Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes, will assess the significance of any unanticipated finds and make recommendations for further evaluation and treatment as necessary. Awareness Training for

workers will be conducted in coordination with traditionally and culturally affiliated Native American Tribes. The Proposed Project proponent will develop and administer a worker training program for all personnel involved in the CMT or its alternatives. The training will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also describe appropriate avoidance and minimization measures if resources are located on the project site and will outline what to do and whom to contact if any potential resources or artifacts are encountered. The training will 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 will provide 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 will be provided in conjunction with Awareness Training before any stages of project implementation and construction activities begin on the project site.

The following edits were made to "Mitigation and Resource Protection Measures" (page 3.4-39):

"Awareness Training for workers will be conducted in coordination with traditionally and culturally affiliated Native American Tribes. The Proposed Project proponent will develop and administer a worker training program for all personnel involved in the CMT or its alternatives. The training will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training will also describe appropriate avoidance and minimization if resources are located on the project site and will outline what to do and whom to contact if any potential resources or artifacts are encountered~~The training will outline what to do and whom to contact if any potential resources or artifacts are encountered. The training will 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 will be provided in conjunction with Awareness Training before any stages of project implementation and construction activities begin on the project site."

4.5 REVISIONS TO CHAPTER 4: Cumulative Effects

SECTION 4.1.3—Related Projects Considered In The Cumulative Impact Analysis

Tahoe Keys Aquatic Invasive Weed Management Program

Because the timeline for implementing the CMT or an action alternative was extended, the following edit was made to the weed management program description (page 4.1-5)

"This long-term aquatic invasive weed management program would be developed following completion of the Proposed Project or selected Action Alternative ~~in late 2023~~."

Under Recreation, Section 4.4.2, the title of Issue RE-1 was changed, to be more specific, in several places as follows:

"Issue RE-1: Obstruction of Direct Private Access to Lake Tahoe Recreational Boat~~ing Passage~~." Pg 4.1-21

The third paragraph of the Issue TR-4 discussion for Action Alternative 2 under Traffic and Transportation was edited for clarity as follows: 4.1-24

"Trips by heavy trucks have the potential to intensify wear and damage to the road surface of streets used for materials transport~~., and mitigation~~ Mitigation Measure TR-3a is recommended to reduce the potentially significant impact of road wear by heavy trucks to less than significant, by providing a means for the City of South Lake Tahoe Public Works staff to require the permittee to repair any road damage that may occur from implementation of Action Alternative 2."

4.6 REVISIONS TO CHAPTER 5: Summaries of Environmental Impacts, Findings, and Thresholds

Environmental Health Issue EH-6, the following edits were made to update information on mitigation measures: pg 5-2

"Although uncertainty exists this potentially significant issue would have a less than significant risk ~~for~~of harmful effects from increased HABs under the Proposed Project and Action Alternative 1, given the timing of testing and with ~~resource protection~~ mitigation measures ~~that have been incorporated into the Proposed Project~~ (i.e., aeration or Phoslock) available to implement in the event of a HABs occurrence at a test site~~ with preventative measures such as the use of barley straw and aeration.~~ Under Action Alternative 2 and the No Action Alterative, HABs would continue unchanged, although unaffected by the project."

The summary of Issue EH-3 in Section 5.1.1 was edited as follows to clarify information on resource protection measures for drinking water: pg 5-1

"This issue would have less than significant effects for the Proposed Project.~~, given~~Resource protection measures were described in the APAP and provide additional assurances of protection, including measures to contain the herbicide applications with double turbidity curtains to prevent movement of active ingredients toward the West Lagoon connecting channel and Lake Tahoe. Dye tracing and well monitoring will document herbicide movement during project implementation. Contingency measures include activating~~ and~~ existing or mobile carbon filtration systems~~ would be activated~~ to remove herbicide residues if they reach wells."

Additional information was added to the summary of the Issue ER-1 evaluation in Section 5.1.2, page 5-2

"This issue applies only to Action Alternative 2. Potentially significant effects could result if spills occur in dredge material handling and transport for Action Alternative 2. Potentially significant effects caused by removing docks and bulkheads in dredge areas would be mitigated by fully replacing them. These would be mitigated through spill containment and spill response. No significant environmental effects would occur for the Proposed Project and all other alternatives. Any bulkheads or docks removed or destabilized by dredging would be fully mitigated by replacing them in kind, and any slopes that are destabilized would be mitigated by slope restabilization after the dredging test is completed. The docks are generally supported on small-diameter pipe posts (i.e., 4-inch diameter steel pipe) that can be extracted and replaced, or left in place during construction, at the contractor's option. Several of the docks have larger-diameter piles that are not extractable but should have sufficient lateral and vertical capacity that they are not expected to be affected by 2 to 3 feet of excavation. Piles would need to be replaced if they were removed but would otherwise not be expected to require replacement unless they have excess corrosion or rot that prevents their re-use.

There are no significant bulkhead walls in area 28, and the few walls at that site are not of a height that should be affected by bottom dredging. Ninety percent of the perimeter of area 30 are sheetpile bulkhead walls that are in good condition and dredging of 1 to 2 feet of loose material is not expected to result in failure of the walls. In area 29, 200 feet of bulkhead wall have been recently replaced and is in good condition (not expected to fail) but there is another 200 feet that is currently leaning and failing due to corrosion of the metal sheets and loss of support due to disconnected wire rope tiebacks. Performance criteria for bulkhead stability would require collaboration with property owners. Typically, bulkheads which change their lean less than 2 degrees or displacement of less than 1/2 inch would be considered unaffected by the dredging operation. Contractual language would be inserted in the project documents to ensure that repairs are performed.

"Mitigation and resource protection measures would address any potential effects of spills in the dredge handling area at the WTP by installing containment barriers and impermeable layers. The effects of spill in transport would be remediated by clean-up operations. Project contract documents would require the dredge operator to provide mitigation and resource protection measures. The dredge material would have substantially the same composition as sediments along the pipeline routes. Turbidity curtains or containment booms would be in place to contain spill or leak sediments. If spills or leaks occur, the material deposited would be dredged to at least the pre-spill mud line to remove the excess materials. Turbid water due to a spill could be run through the dredge spoils treatment and handling system. Performance specifications in Section 3.3.7 refer to contract documents requiring that the contractor meet performance criteria rather than specifying means and methods for pipeline control and spill prevention."

The summary of Issue WQ-1 in section 5.1.5 was edited as follows to clarify that mitigation measures are not required for temperature effects to be less than significant: ([page 5-3)

"The Proposed Project and Action Alternatives would have less than significant effects on water temperature ~~after mitigation~~."

The summary of Issue WQ-2 in section 5.1.5 was edited as follows to clarify that only under Action Alternative 2 would mitigation measures be required for turbidity effects to be less than significant.

"The Proposed Project and Action Alternative 1 would have less than significant effects on turbidity. ~~after mitigation.~~ Real-time monitoring would be used to adjust the methods and rate of activities if turbidity exceeded limits during LFA installation and startup or removal of bottom barriers. For Action Alternative 2, mitigation measures would be necessary. A~~a~~djustments to dredge cutter head speed and movement, and a moveable cutter head shield would be used to minimize turbidity, and turbidity curtains would be used to confine short-term turbidity impacts to test areas."

The summary of Issue WQ-3 in section 5.1.5 was edited as follows to clarify that mitigation measures are not required for dispersal of aquatic weed fragments to be less than significant: (page 5-3).

"Action Alternative 2 would have less than significant effects on dispersal of aquatic weed fragments ~~after mitigation~~."

Also in Section 5.1.5, the following edit was made under Issue WQ-5, to clarify that improvements from aeration systems could occur at herbicide or UV-light test sites: (page 5-4)

"DO conditions will be improved at LFA test sites and at herbicide or UV light test sites where aeration systems are deployed."

The following edits were made in section 5.1.7 to clarify that monitoring identified for Issues TE-1 and TE-2 are not considered mitigation measures (page 5-6)

"~~Mitigation~~Monitoring includes pre-project field reconnaissance for the presence of species, and ongoing monitoring."

"~~Mitigation~~Monitoring (MM-BIO-1) includes pre-project field reconnaissance for the presence of species, and potentially monitoring if sensitive species are found within species appropriate buffer areas (see section 3.3.6 for a description of proposed monitoring measures)."

"~~Mitigation~~Monitoring (MM-BIO-2) includes 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 (see section 3.3.6 for a description of proposed monitoring measures)."

The following edit was made to the Issue TE-2 summary to provide the correct identification of the local wastewater utility (page 5-7).

"Under Action Alternative 2, three sites within the western lagoon would be dredged, and dewatering effluent could be discharged to the ~~City of South Lake Tahoe~~STPUD sanitary sewer system or to Lake Tallac and ultimately Pope Marsh."

The title for Issue RE-1 was corrected as follows in section 5.1.9 (page 5-7).

"Issue RE-1: Obstruction of Direct Private Access to Lake Tahoe Recreational Boating ~~Passage~~."

The following edits were made to section 5.1.11 to clarify that Issue TR-3 does not require any mitigation measures to make effects on road service less than significant: (page 5-8)

"Action Alternative 2 would implement a traffic control plan ~~to mitigate impacts~~; no other ~~mitiga~~resource protection would be required so long as the Venice Drive Bridge is avoided in truck transport under Action Alternative 2."

The title of Issue TR-4 in dection 5.1.11 was corrected as follows: (page 5-9).

"Issue TR-4: Effects on Water~~, Rail or Air~~ Traffic."

The summary of Issue NO-1 in dection 5.1.12 was edited as follows to clarify that mitigation measures are not required for noise effects to be less than significant: (page 5-9)

"~~Mitigation~~Resource protection measures include~~s~~ limiting work during daylight hours, between 8:00 a.m. and 6:30 p.m.; maintenance and muffling of equipment."

The summary of Issue CR-1 in Section 5.1.13 was edited as follows to clarify that resource protection measures will be implemented but mitigation is not required for cultural resources impacts to be less than significant (page 5-9).

"~~Mitiga~~Resource protection includes preparation of an Unanticipated Discovery Plan; Awareness Training for workers; preparation of a Tribal Cultural Resources Awareness brochure to be included in the Project Mitigation Monitoring Plan; culturally appropriate treatment that preserves or restores the cultural character and integrity of Tribal Cultural Resources, including Tribal Monitoring,

culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil; and consultation with traditionally and culturally affiliated Native American Tribes regarding mitigation if adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs."

The final paragraph in section 5.7 was edited as follows to clarify the selection of an environmentally superior alternative and correct the conclusion regarding the significance of impacts on recreational boating (page 5-18).

"The Environmentally Superior Alternative was selected based on the least amount of potential environmental effects, even if the compared alternatives were considered to have "less than significant". ~~As shown in Table 5-1, both the Proposed Project and Action Alternative 2 would have potentially significant unavoidable impacts on recreational boating. In addition, a~~lthough the Proposed Project and both Action Alternatives mitigate all ~~other~~ identified environmental issues to less than significant, both the Proposed Project and Action Alternative 2 entail activities (application of herbicides and the dredging, dewatering and disposal of sediment) that would not occur under Action Alternative 1."

Because the abbreviations defined in notes following the title of Table 5-1 were for abbreviations not used in the table, the notes were deleted (page 5-20).

In Table 5-1 the title of Issue RE-1 was edited to be more specific, as follows: (page 5-31)

"Issue RE-1: Obstruction of Direct Private Access to Lake Tahoe Recreational Boat~~ing Passage~~"

Table 5-1 was also edited to indicate that Issue AQU-7 does not apply to the No Action Alternative. (page 5-29)

Consistent with Table ES-1 and distinctions between resource protection measures and mitigation measures required for potentially significant effects, the following edit was made in Table 5-1 for Issues EH-3, EH-4, and AQU-1 under the CMT; Issues WQ-1, and TE-2 under the CMT and Action Alternative 1; and Issues AQU-2, AQU-5, AQU-6, AQU-7, AQU-8, AQU-9, TE-1, and CR-1 for the CMT and both Action Alternatives:

"No significant unavoidable effects~~ after mitigation~~."

4.7 REVISIONS TO CHAPTER 6: Compliance, Consultation, and Coordination

The following corrections were made to DEIR/DEIS, Section 6.1.4, page 6-4:

The Tier III designation of Lake Tahoe ~~(including the West and East lagoons)~~ under the federal Antidegradation Policy provides that states may allow some limited activities that result in temporary and short-term changes to water quality, but such changes should not adversely affect existing uses or alter the essential character or special uses for which Lake Tahoe was designated as an outstanding national resource water (ONRW). ~~As discussed in Section 1.4.1.1, if detectable concentrations of applied aquatic herbicide active ingredients or select degradation byproducts are present longer than "weeks to months, not years" the discharges would be assessed to cause long-term water quality degradation.~~ The LWB has discretion in determining the allowable time frames for what constitutes long-term and short-term existing water quality degradation within the "weeks to months, not years" guidance from USEPA.

The following corrections were made to DEIR/DEIS, Section 6.2.6, page 6-12:

The Basin Plan also identifies prohibitions against discharges and threatened discharges in the 100-year floodplains or below the high-water rim of Lake Tahoe that apply to portions of the TRPA-defined shorezone. ~~Administration of the State and federal Antidegradation Policy in California follows the Administrative Procedures Update on Antidegradation Policy Implementation for NPDES Permitting (State Water Board 1990), and Basin Plan policies, including those developed to guide consideration of exemptions to the prohibition on using aquatic pesticides and herbicides in the Lahontan Basin.~~ The requirements for a~~n~~ Basin Plan exemption to the prohibition on pesticide discharges apply both to proposed aquatic herbicide testing in the West Lagoon~~, which is part of the Tier III designation of Lake Tahoe as an ONRW,~~ and to herbicide testing in Lake Tallac~~, which has Tier II protection under the antidegradation regulations~~. As noted above and discussed in Section 1.4.1.1, if ~~detectable concentrations of~~ applied aquatic herbicide active ingredients or select degradation byproducts are present longer than "weeks to months, not years" in exceedance of applicable water quality objectives, the discharges would be assessed to cause long-term water quality degradation.

In Section 6.1.5 describing compliance with the Safe Drinking Water Act, the incorrect reference to the Porter Cologne Water Quality Control Act was deleted:

"Federal government delegates water pollution control authority under the Safe Drinking Water Act (SDWA) to the State of California which oversees compliance. ~~Refer to Section 5.2.8, "Porter-Cologne Water Quality Control Act~~

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5 List of Preparers for the Final EIR/EIS

5.1 TAHOE REGIONAL PLANNING AGENCY

Name	Qualifications	Role
Dennis M. Zabaglo	Aquatic Resources Program Manager B.S. Environmental Resources Management 26 years of experience	Lead Agency Staff
Paul Nielsen	Special Projects Manager B.A. Geography & Water Resource Policy 30 years of Experience	Lead Agency Staff
John Marshall	TRPA General Counsel Doctor of Jurisprudence (J.D.) B.A. Population Biology 32 years of Experience	Lead Agency Staff Project Counsel

5.2 LOHANTAN REGIONAL WATER QUALITY CONTROL BOARD

Name	Qualifications	Role
Anna Garcia	M.S. Geology 25 years of experience	Senior Engineering Geologist Specialist
Russell Norman	B.S. Environmental Science 26 years of experience	Water Resource Control Engineer
Tiffany Racz	M.S. Environmental and Civil Engineering 5 years of experience	Water Resource Control Engineer
Laurie Scribe	B.S. Conservation and Resources Studies 21 years of experience	Senior Environmental Scientist Specialist
Robert Tucker, P.E.	M.S. Civil Engineering 28 years of experience	Senior Water Resources Control Engineer; Lead Agency project manager
Scott Ferguson	B.S. Environmental Resources Engineering 33 years of experience	Supervising Water Resources Control Engineer

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