

TAHOE KEYS STAKEHOLDER COMMITTEE FINAL REPORT DECEMBER 2021

PURPOSE OF THIS DOCUMENT

Since November 2018, the Tahoe Keys Stakeholder Committee (SC) has been a forum for collaborative discussion about the goals, design, and review of a Tahoe Keys Control Methods Test (CMT), including discussions around understanding the history of the problem, opportunities and challenges, as well as proposed solutions.

This report is intended to summarize the shared perspectives as well as individual perspectives of SC members ahead of the final project decision by the lead agencies. Each organization represented on the SC has engaged in the regulatory process and continues to share formal comments at the appropriate milestones in the NEPA, CEQA and Tahoe Regional Planning Agency (TRPA) environmental analysis. Each SC representative plans to individually represent their interests to decision makers as they consider the proposal for the CMT in early 2022.

OVERVIEW OF STAKEHOLDER COMMITTEE WORK

In 2018, the Tahoe Keys Property Owners Association (TKPOA), TRPA and the Lahontan Water Board initiated an environmental review process for assessing different aquatic invasive weed treatment options to address the 172-acre infestation in the Tahoe Keys lagoons. A core team of key stakeholders unanimously selected Zephyr Collaboration as an independent facilitator and an intensive stakeholder process was launched, beginning with interviews of over 40 individuals and small groups to assess interests, concerns, and questions regarding weeds management. The October 2018 [Stakeholder Assessment Report](#) summarizes stakeholder interests and perspectives and includes recommendations for a collaborative, transparent, inclusive stakeholder process to inform what has been described as one of the biggest environmental challenges facing Lake Tahoe.

Following the assessment, the SC was established to collaboratively guide and inform the development of a proposed project. SC representatives include the lead agencies - TRPA and Lahontan Water Board - as well as TKPOA, the League to Save Lake Tahoe, the Tahoe Resource Conservation District, and the Tahoe Water Suppliers Association.

A broader Stakeholder Consultation Circle (SCC) comprised of over twenty partner agencies and key stakeholders was also formed and convened at key milestones to ensure engagement of diverse interests throughout the process.

ENGAGEMENT ACTIVITIES

The SC met twenty (20) times between November 2018 and December 2021 to foster discussions and feedback on the Tahoe Keys CMT. SC members were also important participants in

workshops with the SCC, as well as in public meetings, online webinars and open houses. A sequence of SC activities includes:

- **Understanding Stakeholder Interests (2018)**
 - Discuss interests and desired outcomes of the collaborative process and project
 - Gain agreement and clearly define project goals
 - Inform the design of public and stakeholder engagement
 - Inform the development of a project website and FAQs
- **Collaboratively Developing a Project Proposal (2019)**
 - Collective determination of the need for a test of treatment methods specifically for the Tahoe Keys lagoons
 - Inform data collection needs
 - Participation in the scoping and public comment periods for the EIR/EIS
- **Scientific Analysis and Public Outreach (2020)**
 - Review results from baseline studies 2019-2020
 - Review and discuss EIR/EIS alternatives for analysis
 - Collaborative technical workshops on findings of the EIR/S including nutrient sources and cycling in the Tahoe Keys lagoons
 - Field trips and site visits with partner agencies and the public
- **Developing Draft Permit Conditions and Monitoring Protocols (2021)**
 - Review of project monitoring protocols
 - Group review of draft NPDES permit
 - Participation in public open house events and help producing digital content for public and stakeholder education

STAKEHOLDER COMMITTEE ACCOMPLISHMENTS

The Tahoe Keys Stakeholder Committee was instrumental in bringing different viewpoints to understanding the Tahoe Keys weeds challenge, the proposed project design and associated environmental analysis. The committee met nearly monthly between November 2018 – June 2019 and approximately quarterly between July 2019 – December 2021. Accomplishments include:

- **Developing a shared understanding of the problem and stakeholder interests:** The SC shared information with each other on the weeds problem in the Tahoe Keys, the lake-wide aquatic invasive species control program, the history of management and projects to date, and the different stakeholder perspectives on finding solutions. They all agreed that this is a lake-wide problem, and all have an interest in being part of the solution.
- **Developing the proposed test project:** The SC agreed that the project should focus on testing a variety of methods in the unique conditions of the Tahoe Keys lagoons to inform a larger-scale treatment plan. In this way, TKPOA worked with the SC to redesign their proposed project into the Control Methods Test.
- **Developing a schedule and public engagement process:** The SC worked together to develop a schedule to meet the needs of the project and give the opportunity for robust public engagement. The SC augmented the stakeholder and public outreach which included development of a project website, public meetings, multi-media sources of information such as newsletters and videos, and outreach to a broad range of interested partner agencies and organizations through the Stakeholder Consultation Circle.

- **Providing feedback on the scope of the environmental analysis:** Stakeholder and public outreach influenced the lead agencies to design the EIR/S and regulatory review in the following ways:
 - Include a thorough analysis of the No Action Alternative
 - Include an alternative based on dredging and physical modifications to the lagoons
 - Expand the testing of non-chemical and experimental treatments such as ultra-violet light (UVC) and laminar flow aeration (LFA)
 - Recruit independent review of the environmental analysis by members of the Tahoe Science Advisory Council
- **Providing input on the design of expanded experimental tests of UVC and LFA in the Tahoe Keys during the summer of 2020:** In response to stakeholder feedback, the SC worked to help develop expanded tests to increase the body of knowledge in how these experimental and emergent technologies might be effective in the unique environment of the Tahoe Keys lagoons.
- **Providing feedback on the Mitigation and Monitoring Plan (MMP):** In the event permits for the CMT are granted by the lead agencies, a robust MMP has been developed with Stakeholder Committee input.

STAKEHOLDER COMMITTEE SHARED PERSPECTIVES

At the culmination of this 3-year SC process, SC members have developed shared and agreed upon perspectives on the following:

- **The Tahoe Keys aquatic weeds infestation is accelerating and poses a serious threat to Lake Tahoe if not controlled.** The ultimate goal is to achieve a major reduction in the mass of weeds, seed pods and nutrients so that water quality and the weed infestation can be actively maintained over time.
- **The development of the proposed project has been a thorough, scientifically rigorous, and inclusive process.** Extensive permit requirements have been developed by the lead agencies for planning, implementation, monitoring and reporting for the proposed project.
- **The environmental analysis determined that Lake Tahoe is not at risk from this proposed test of mixed methods.** At the request of public and stakeholders, the “no action” alternative was evaluated thoroughly, and stands out as the scenario of greatest threat to water quality in the Tahoe Keys Lagoons and for Lake Tahoe overall.

INDIVIDUAL STAKEHOLDER COMMITTEE PERSPECTIVES

All but one member organization of the SC agree herbicides should be tested as a method for initial knock-back of weeds and nutrients (Group A), to be followed by maintenance through non-chemical methods (Group B). Members of the Tahoe Water Suppliers Association maintain concern with testing herbicides, although individual TWSA members have a spectrum of positions related to the project. While they express general confidence in the testing, monitoring and mitigation protocols, they seek to avoid any risk of losing consumer confidence in the quality of the drinking water, water filtration exemptions, or impacts to their trademarked brand, Drink Tahoe Tap.

SC members were each asked to summarize their perspectives on the following topics:

1) Public and Stakeholder Engagement, 2) Environmental and Regulatory Review, 3) Design of the Controlled Methods Test, and 4) Monitoring Plan for Controlled Methods Test. Committee member perspectives are given below in their own words (lead agencies not included):

Q1: Public and Stakeholder Engagement

How well were you able to represent your interests? Can you describe examples of your comments or questions being considered in environmental review and test design? Do you have perspectives on the overall quality of public and stakeholder engagement? What evidence do you see of stakeholder and public engagement influencing the design and review of a controlled methods test? What else do you have to say about stakeholder engagement?

SC Member Responses:

- The Stakeholder Engagement process has been well facilitated. The project has been refined over time to include many of the non-chemical technical options suggestions.
- The collaborative process provided an exceptional platform for all the interests and concerns to be heard and addressed and fully vetted, promoting a clear united front in solving the Lake Tahoe invasive weeds problem. It is an extraordinary example of public and private parties working successfully together to solve a common problem.
- I was very effectively able to represent my organization's interests in a welcoming environment. The concept of a standalone test was something we advocated for far before the stakeholder process started so it was nice to see that happen. One-time use of herbicide followed by non-chemical was something we wanted to see. Public and stakeholder engagement went above and beyond what was expected but likely what was needed. The tahoekeysweeds.org website was an excellent addition to outreach. Many public meetings were conducted well and located in appropriate locations. People that were interested in participating had many opportunities and methods to do so. Expansion of UV test site size, analyzing dredging, in-depth analysis of the "no action alternative" were all examples of public input being incorporated.
- Our interests lie in using the best possible science and in working closely with public and partner partners to implement aquatic invasive species control projects. Over time, we were able to represent our interests. For example, we provided insight on the likelihood of effectiveness of using specific plant control methods on a small scale vs. a large scale. The Stakeholder Committee actively and genuinely solicited new science and information, listened to the public's overall and specific concerns, and as a result made the difficult decision to switch gears from proposing use of multiple methods of plant control in the Tahoe Keys lagoons to the pursuit of the control methods test. This decision is direct evidence of stakeholder and public engagement influence. In the design and review of the Control Methods Test, stakeholders were given the opportunity at every meeting to voice concerns and provide input and ideas. Some ideas weren't best addressed in the design of the Controlled Methods Test itself but were addressed through other means. For example, these regular meetings provided an opportunity to share information and coordinate on existing plant control projects occurring in and adjacent to the Tahoe Keys lagoons.

Q2: Environmental and Regulatory Review

How do you know whether the environmental review is thorough and draws upon the best available information? Are you satisfied with the level of peer review of the approach to

environmental review? What is your level of confidence in the findings and conclusions of environmental review? What else do you have to say about environmental review?

SC Member Responses:

- Many factors played into me knowing the environmental review was thorough and draws upon best available information; 1) extensive additional baseline monitoring was added to the project after the stakeholder meetings began so that is the best available info, 2) involvement of TSAC in some form of project review, 3) compiling and making available all/most previous work done in the Keys, 4) incorporating information provided by stakeholders, 5) numerous meetings and discussions with EA consultants at stakeholder meetings, 6) conducting a full EIS for a test. Yes, I am satisfied with the level of peer review. It was unfortunate the environmental review became so fragmented between the EIS (TRPA) and Lahontan. Very confident in the findings and conclusions. Checks all boxes.
- The review process has been thorough. The anti-degradation analysis determined that the use of herbicides as proposed would not produce a long-term degradation to water quality. It was presented in a manner which states that NOT using herbicides could itself have long term quality degradation; based on the "clear, blue water" standard (Order No. RST-2022-{TENT} Pages G-4, G-17). The analysis assumes we know all the possibilities of risk of that substance at this time. We know a lot, but not all. Historically, there is a list of chemicals which were determined safe, then not safe after the fact. We simply do not agree with this finding as presented.
- The proposed project benefits from having many years of study and observation in the Tahoe Keys lagoons by experts in the field and more recently a suite of data collected by consultants directly involved in this project. There are still some questions about how the Control Methods' Test proposed single use of herbicides can accurately simulate what might be proposed in the future. We don't have experience with herbicide application in Lake Tahoe that demonstrates a single treatment can meet objectives to reduce the plant extent and density to a level where other physical control methods could control the plant population. Plants can likely be controlled to a degree that the infestation is not spreading into Lake Tahoe and the extent and density of plants within the Tahoe Keys lagoons is greatly reduced annually. The target of 75 percent reduction may be achievable, but the tougher question will be over what period of time this can be maintained and does reduction mean elimination and killing of 100% of the plant biomass including roots, or reduction in vegetative biomass over a shorter period of time. The project proposed a robust monitoring program that will provide data to address these questions.
- Having background in limnology, toxicology, pharmacology and a lifetime career in analyzing study designs and conclusions, I find the proposed CMT study to be one of the most well thought out and robust in design, scope and monitoring I have seen in my life. I clearly have great confidence in the findings and conclusions produced by the study. Adopting the CMT plan as submitted is critical for best understanding the most successful path in controlling, managing and hopefully solving the invasive weeds in all of Lake Tahoe.

Q3: Design of the Controlled Methods Test

Do you feel the Controlled Methods Test as currently proposed will yield useful information about the best methods for managing aquatic weeds in Tahoe Keys Lagoons? If you have preferences

for any changes to the Controlled Methods Test, please describe those here along with the reasons for the desired change(s).

SC Member Responses:

- Yes, the CMT will yield useful information as currently proposed as long as it includes all methods at the same time (not phased as some have suggested). It would have been nice to have Group A methods (chemicals and UV light) overlaid on sites where LFA was either already operating or would be operating during the CMT. It is likely from all knowledge and previous experience with LFA that it takes several years to have an effect and is more of a long-term maintenance method than an actual control method. We are missing a huge opportunity to give other Group A methods (UV and herbicides) a chance to succeed and for the entire three-year test to succeed without having LFA operating throughout the sites.
- We are hoping to see great results from laminar flow and UV. Our group still supports Alternative 2 non-chemical testing only. We know the herbicides will kill weeds. It's an unusual approach to only apply herbicide once, then try non-chemical methods in years 2/3 - most chemical use is repeated and ongoing.
- Yes, absolutely, the monitoring proposed for this project is well designed, realistic and will be executed by specialists who understand the challenges of working in the Keys and have experience doing so. If HABs and presence of cyanotoxins occur during testing, it will be important to understand if there is a relationship between control methods test activities and the bloom, or if there are other variables contributing to the outbreak. This could be difficult to determine.
- As a member of the TKPOA Water Quality Committee, I have worked closely with the scientists who are a part of the design and execution of the monitoring data collection. Utilization of the most current tools to optimize data collection from every conceivable aspect coupled with timely analytics offers me great confidence in the assessment of both treatment efficacy and ecologic safety.

Q4: Monitoring Plan for Controlled Methods Test

Please describe your impressions of the plans for application of treatment methods, measuring the efficacy of different methods, monitoring water quality during testing, and actions for detecting and mitigating unintended impacts to water quality during testing.

SC Member Responses:

- Well-developed and thorough monitoring and mitigation.
- Application of treatment methods is thorough, precautionary (minimizes chemicals) and innovative (one-time use of herbicides only). Measuring of efficacy of different methods is sufficient. Unclear what will happen if success criteria from year 1 are not met. How do you proceed at those sites in years 2 and 3? Is there a chance to modify in year 2 and still see if success can occur? Water quality monitoring is above and beyond what is likely needed but we are making sure water quality is protected which is job number one. Detection and mitigation methods/plans are sufficient and there are adequate safeguards in place to ensure the Lake is protected. Nice job on this section.
- The monitoring plan for the proposed project is extensive and well-designed. Execution will take a high level of coordination and commitment throughout the project. The

successful application of treatment methods will require adequate funding, and timing of contracts so methods can be implemented at the appropriate time of year. A tremendous amount of effort has been expended on the design and timing of the tests and an equal amount of effort should be spent on ensuring contracts are in place so equipment can be purchased, and work can move forward as planned. Supply chain delays and shortages could affect the schedule so contracting is a priority and contingency plans are important. In terms of our impressions for the work being executed once contracts are in place and the monitoring is underway, we have a high level of confidence that required water quality monitoring during testing will be conducted as planned, and that detecting and mitigating impacts to water quality will also be addressed in a timely manner as planned.

- The treatment methods, monitoring detail and scope and measures for detecting and mitigating unintended impacts to water quality during testing are extremely well thought out and offer greatest assurance of providing top quality information along with unmatched environmental and ecologic safety.

FUTURE STAKEHOLDER COMMITTEE ROLE

The proposed project that is before decision makers in early 2022 is one step in a long timeline to manage the Tahoe Keys weed infestation and solving the lake-wide AIS problem. There is a desire by Stakeholder Committee members to continue their role in finding solutions in the Tahoe Keys. Based on the outcomes of the project decision, potential future roles the SC could play are:

- Meet periodically during CMT implementation to review monitoring data and provide input on conclusions and next steps
- Help inform an adaptive management strategy based on scientific data
- Share information about ongoing treatment results lake-wide
- Help inform/develop a long-term recommended strategy based on CMT results