

September 1, 2020

Tahoe Regional Planning Agency  
Dennis Zabaglo, Aquatic Resources Program Manager  
128 Market Street, Stateline, Nevada 89410  
*Submitted via email – tahoekeysweeds@trpa.org*

Re: Tahoe Keys Lagoons Aquatic Weed Control Methods Test DEIR/S

Dear Mr. Zabaglo,

The purpose of this letter is to express the League to Save Lake Tahoe's (League) support for the "Proposed Project" as detailed in the Draft EIR/EIS (DEIR/S) for the Tahoe Keys Lagoons Aquatic Weed Control Methods Test posted on July 6, 2020 (Project).

### **Introduction**

The League is dedicated to protecting and restoring the environmental health, sustainability and scenic beauty of the Lake Tahoe Basin. In connection with our mission, we advocate for projects that control and manage aquatic invasive species (AIS) in the Lake Tahoe watershed to a point of ecological insignificance, thus protecting Lake Tahoe's fragile ecosystem.

The League has worked closely with the Tahoe Keys Property Owners Association (TKPOA) over the last eight years on addressing the largest aquatic weed infestation at Lake Tahoe, located in the Tahoe Keys lagoons. A formal stakeholder process initiated by the Lahontan Regional Water Quality Control Board (Lahontan) and the Tahoe Regional Planning Agency (TRPA) that began in 2018 has resulted in the current proposal to conduct a test of a variety of control methods, one chemical and several non-chemical, in the Tahoe Keys lagoons. 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. 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. 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.

### **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).<sup>1</sup>

### **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.

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. 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<sup>2</sup>. 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.

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<sup>1</sup> United States Environmental Protection Agency (US EPA) 2014. Water Quality Standards Handbook, Chapter 4: Antidegradation.

<sup>2</sup> Tahoe Keys Property Owners Association (TKPOA) 2018. Tahoe Keys Lagoons Restoration Project, Application for Approval to Reduce Aquatic Invasive and Nuisance Plant Species. July 25, 2018.

### **“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.

### **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.

One of the three performance measures set for the Project is to reduce the biomass of aquatic weeds by 75%.<sup>3</sup> 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.

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<sup>3</sup> Tahoe Regional Planning Agency and Lahontan Regional Water Quality Control Board (TRPA & Lahontan) 2020. Tahoe Keys Lagoons Aquatic Weed Control Methods Test DRAFT Environmental Impact Report/Environmental Impact Statement (DEIR/S) Section 1.2.2.2. July 6, 2020.

- 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.

### **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).<sup>4</sup>

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<sup>4</sup> TRPA & Lahontan 2016, Section 1.2.2.2

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<sup>5</sup>, as well as why additional tools were not included in either category<sup>6</sup>. 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.<sup>7</sup> 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.

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.<sup>8</sup> As the DEIR/S points out, the Proposed Project would apply lower concentrations than what is allowed by EPA. There would also only be one application – not ongoing applications as allowed by the EPA. Similar lake environments use chemicals year after year, which the League currently does not support for Tahoe. The Project does not even consider this and is very clear that one-time use of chemicals is all that is being tested. 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.

### Summary

Joining the decades of attention from TKPOA, the League has been working to address the aquatic weed infestation in the Tahoe Keys lagoons for the past eight years. Our involvement includes the last two years working as part of an enhanced Stakeholder process, which resulted in the TKPOA Project application that is the subject of this DEIR/S. 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.

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<sup>5</sup> *Ibid.* Section 2.2.

<sup>6</sup> *Ibid.* Section 2.7

<sup>7</sup> *Ibid.* Section 2.3.2.3

<sup>8</sup> *Ibid.*

The League will continue our extensive involvement to address the aquatic weed infestation in the Tahoe Keys lagoons while protecting the health and clarity of Lake Tahoe.

Thank you for the opportunity to comment and do not hesitate to contact us directly with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'JP', with a stylized flourish extending to the right.

Jesse Patterson  
Chief Strategy Officer

A handwritten signature in black ink, appearing to read 'David Blau', written in a cursive style.

David Blau  
League Board Member and Program Committee Chair

CC: W. Russell Norman, P.E. Water Resources Control Engineer, Lahontan Regional Water Quality Control Board, 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150.  
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