

External Peer Review of Aquatic Herbicide Use in the Lake Tahoe Keys Lagoons

John Melack, Council Peer Review Lead
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The Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency engaged the Tahoe Science Advisory Council to lead an external peer review of documents associated with the Tahoe Keys Lagoons Aquatic Weed Control Methods Test project.

Documents reviewed:

1. Aquatic Pesticide Application and Basin Plan Exemption
 - a. Section 4 - Monitoring and Reporting Program (35 pages)
 - b. Appendix H - CMT Detailed Treatment Monitoring Tables (8 pages)

Review Question:

Will implementing the proposed monitoring plan provide sufficient data and analyses to assess whether non-target biological communities (including macroinvertebrates, macrophyte, and fish populations) have fully recovered/restored following pesticide application?

Findings:

The review found “the proposed monitoring plan will provide ample evidence to assess whether non-target communities have fully restored/recovered after the aquatic weed treatments.”

Specifically:

- The scale, extent and methodologies described by the monitoring and reporting plan are scientifically rigorous, particularly with respect to the plant and BMI monitoring.
- The scope and physical coverage of the study area are more than reasonable and will allow the study to answer the question of which, if any, aquatic invasive plant control methods are effective.
- The water quality analyses (including the standard and the continuous efforts, nutrient grabs and HAB monitoring) are all reasonable and fully justified.
- The methods to monitor herbicide and degradant chemicals in the water are sound.
- The use of the rhodamine dye tracer is a great addition to this methodology.
- The records keeping, sample preservation, shipping and QA/QC methodologies are all more than adequate.
- The plans for post-project assessment of restored conditions efforts are reasonable.

Attachments: Tahoe Keys CMT Project Peer Review Charge
Tahoe Keys CMT Project Peer Review letter (Marchetti, August 8, 2021)
Dr. Michael Marchetti – Curriculum vitae