



Mike Plaziak, Acting Executive Officer
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

January 28, 2021

RE: Section 13267(b) Compliance Report for Order No. R6T-2014-0059 – W DID 6A090089000 for Water Quality Certification and Waste Discharge Requirements for Tahoe Keys Property Owners Association

Dear Mr. Plaziak,

This transmittal letter and attached reports are submitted by the Tahoe Keys Property Owners Association (TKPOA) in response to the requirements specified in the Water Quality Certification and Waste Discharge Requirements (WDRs) for TKPOA by Lahontan Regional Water Quality Control Board (Lahontan) Order No. R6T-2014-0059 (Order), and specifically in response to Section II.D, Annual Reports and Updates of the Order. Per the WDRs, TKPOA is required to submit annual updates of its Integrated Management Plan for Aquatic Weeds (IMP), Nonpoint Source Water Quality Management Plan (NPS Plan), and Aquatic Plant Monitoring Plan, and to include a summary of the success of bottom barrier implementation. These updates are to be submitted by no later than January 31 of each year covering the previous 12 months. Accordingly, the reports attached to this transmittal letter include:

1. Integrated Management Plan for Aquatic Weeds – 2020 Update
2. Nonpoint Source Water Quality Management Plan – 2020 Update
3. 2020 Aquatic Macrophyte Survey Report (Aquatic Plant Monitoring Plan)
4. 2020 Bottom Barrier Monitoring Report

In accordance with the requirements of its WDRs, each of the attached reports includes a description of actions taken in 2020 and proposed in 2021 to fulfill the objectives named in the WDRs. The objectives stated in the WDRs are:

- Eliminate spreading of aquatic invasive species (AIS) from the Tahoe Keys to greater Lake Tahoe.
- Enhance the overall water quality of the Tahoe Keys lagoons and Keys Marina thereby improving Lake Tahoe water quality and associated clarity.
- Reduce habitat for non-native fish and enhance habitat for native fish in the Tahoe Keys lagoons and Keys Marina.
- Restore and maintain established beneficial recreational uses, including water contact safety in the Keys lagoons.

- Implement a combination of cost-effective control measures that are feasible for long-term management of aquatic invasive plants. For each of the reports this includes a summary of maintenance activities and challenges. These are focused on aquatic plant removal operations.

Overview of 2020 Report Updates

The following summarizes the attached reports.

Integrated Management Plan for Aquatic Weeds – 2020 Update

TKPOA's IMP applies an integrated pest management approach to aquatic weed control by combining sound ecological principles and research of new technology with proven methods for aquatic plant control. This is the fourth update TKPOA has provided to Lahontan since TKPOA released its first IMP in January 2017.

This year's update, similar to last year's update, focuses on describing current and ongoing activities, and TKPOA's approach to control aquatic weeds in the Tahoe Keys lagoons (Keys lagoons or lagoons) in 2021. The update includes an overview of the weed control activities implemented by TKPOA in 2020 (including research and monitoring activities), a description of discontinued weed control strategies, and a discussion of TKPOA's planned program for aquatic weed control in 2021.

In 2020, TKPOA continued research and monitoring activities initiated in 2019 including: the three-year laminar flow aeration (LFA) project, continued use of bottom barriers, and preliminary field testing of UVC light equipment configurations.

In 2021, as in years past, TKPOA's program for aquatic plant control will involve mechanical and cultural control methods. These control methods include all of the aquatic weed control methods applied in 2020: mechanical harvesting and fragment collection; boat backup station; homeowner bottom barrier installation; NPS Plan implementation; and Main Lagoon (West Channel) bubble curtain. Additionally, in 2021 TKPOA plans to continue existing studies as a part of its research program. This includes continuation of the LFA project and evaluation of cyanobacteria control methods, including evaluation of dock bubblers and ultrasonic devices.

TKPOA is also continuing to participate in and monitor progress pertinent to its Integrated Control Methods Test application to assess the efficacy of chemical control methods as an AIS control strategy. The Final EIR/EIS, along with TRPA and Lahontan Board decisions on TKPOA's project application, are scheduled to be completed by September 2021.

Nonpoint Source Water Quality Management Plan – 2020 Update

The NPS Plan is the primary document guiding the TKPOA institutional control, education, and outreach to homeowners related to Aquatic Invasive Species (AIS). The NPS Plan is intended to meet the following two objectives (specified for the NPS Plan in the WDRs):

- To identify and evaluate land-based activities being conducted in the Tahoe Keys community that may be sources of pollution (including nutrients) that have the potential to be discharged into surface waters.
- To identify and evaluate site-specific management practices to reduce or prevent pollutants (including nutrients) associated with activities being conducted in the Tahoe Keys community from discharging into surface waters.

The update focuses on describing NPS activities implemented in 2020 and on TKPOA's planned NPS activities for 2021. This is the fourth NPS Plan update TKPOA has provided to Lahontan since TKPOA released its first NPS Plan in January 2017.

Notable new educational outreach highlighted in this NPS Plan update include the initiation of the 2020 Outreach and Education program (a four-phase program that includes: homeowner outreach, pavilion education, website update, and public outreach), an increased social media presence (Instagram account dedicated to TKPOA water quality and AIS management projects), and additional cigarette butt collection and monitoring.

2020 Aquatic Macrophyte Survey Report (Aquatic Plant Monitoring Plan)

TKPOA has conducted detailed point-intercept aquatic plant monitoring surveys of the Tahoe Keys Main (west) and Tahoe Keys Marina (east) Lagoons annually since 2014 and conducted the survey in all three lagoons (Main Lagoon, Marina Lagoon, and Lake Tallac) since 2015. The survey measures presence and absence of plant species (comparison) during late June/early July each year, relative composition of those species found, and area coverage. The aquatic macrophyte survey report summarizes this survey and estimates the percent area covered of each lagoon and the average plant biovolume within the water column based on hydroacoustic scan snapshots taken by TKPOA approximately twice per month during the growing season since 2015.

Notable results highlighted in this annual Aquatic Macrophyte Survey Report include the increasing trend of invasive curlyleaf pondweed in the Tahoe Keys lagoons. Overall, survey data clearly indicate that extent and biovolume of curlyleaf pondweed has substantially increased in the Main Lagoon, Marina Lagoon, and Lake Tallac over the past seven-year period.

The Macrophyte Survey Report concludes that control of curlyleaf pondweed has become a time-critical issue that calls for near-term action to prevent broader spread into the near-shore areas of Lake Tahoe proper.

2020 Bottom Barrier Monitoring Report

Installation of up to five acres of bottom barriers at any one time are an allowable AIS control strategy under the WDRs. In 2020, TKPOA continued with its bottom barrier program for property owners. Fifteen homeowners submitted permit applications for bottom barriers to the TKPOA Architectural Control Department (ACD) in May 2020. Four of the 15 homeowners

supplied and installed their own bottom barriers. TKPOA supplied 10'x10' bottom barriers with weighted rebar edges to the remaining 11 approved homeowners.

Water Circulation System

This year, at the direction of the TKPOA Board of Directors, TKPOA Water Quality Staff evaluated reactivating the water circulation system as a potential means of reducing nutrient concentrations in the water column and reducing algal blooms. As part of the evaluation, a phased start-up of the system was initiated in mid-July 2020. In accordance with the WDRs, TKPOA collected required data and samples at six sampling sites prior to turning the system on and while the system was functioning.

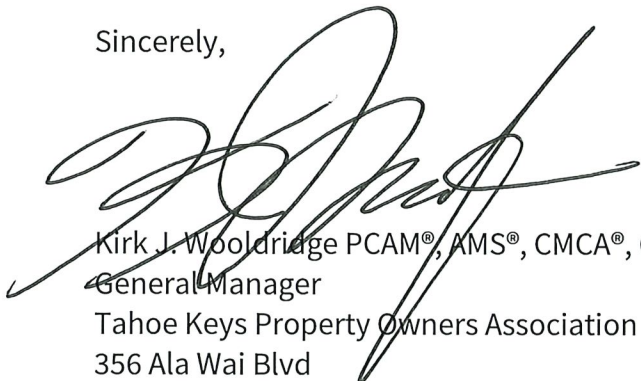
A final report with results and observations from the 2020 water circulation system test will be submitted by TKPOA by March 31, 2020.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware of the potential for significant penalties for submission of false information, including the possibility of fines and imprisonment for knowing violations.

Please contact me at (530) 542-6444 Extension 224 if you need any additional information regarding this report and attachments.

Sincerely,



Kirk J. Wooldridge PCAM®, AMS®, CMCA®, CHA®,
General Manager

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