

NEW ZEALAND MUDSNAIL SURVEILLANCE

Recommended Action: Adopt Resolution 24-06-04 (Attachment 1) authorizing a grant to Tahoe Resource Conservation District (Tahoe RCD) for up to \$150,000 to conduct New Zealand mudsnail (NZM) surveillance activities in the nearshore of Lake Tahoe.

Executive Summary: The recommended action will support Tahoe RCD and Basinwide efforts to monitor and control aquatic invasive species (AIS) in Lake Tahoe. This grant provides funding for underwater diver surveys to monitor for NZM. Divers contracted by Tahoe RCD first discovered the species in Lake Tahoe in September 2023. The Lake Tahoe AIS Coordination Committee (Committee) has identified ongoing surveillance of invasive species as critically important to program success. Documenting where the NZM infestation has spread will help the Committee predict where future impacts from this species might occur and identify future management actions. The grant does not fund NZM control activities.

This grant advances the Lake Tahoe Environmental Improvement Program (EIP) goals to control AIS and protect native species in the region. The grant also promotes the California Tahoe Conservancy's (Conservancy) Strategic Plan Goal 2, Strategy B, by advancing a multiple-benefit project that pairs watershed resilience with water quality protection. Upon Board authorization, staff will execute the grant agreement and take all other necessary implementation steps.

Location: Sites in the nearshore of Lake Tahoe in California.

Fiscal Summary: Staff seeks authorization to award up to \$150,000 from the Lake Tahoe Science and Lake Improvement Account (Account). Conservancy staff will process the grant as part of its regular workload.

Overview

History

AIS threaten waterways throughout the nation, as they can impair drainage infrastructure, reduce water quality, degrade wildlife habitat, and impact recreation. In

the Lake Tahoe Basin, the Committee leads prevention, detection, and control activities to reduce the introduction, spread, and extent of AIS. The Committee includes various resource protection, regulatory, and funding agencies, scientists, and non-governmental organizations. In 2019, the Committee developed the Lake Tahoe Region AIS Action Agenda (Action Agenda) to provide a comprehensive framework for AIS surveillance and control activities. The Action Agenda highlights surveillance to identify new and expanding AIS populations as critical to program success. Specifically, the Action Agenda recommends that agencies dedicate funding to assess the distribution, abundance, and population size of invasive invertebrates, such as the NZM, in the Lake Tahoe region.

While conducting an aquatic invasive plant site assessment offshore of the Tahoe Keys in September 2023, divers contracted by Tahoe RCD discovered the non-native New Zealand mudsnail (*Potamopyrgus antipodarum*). This was a significant and concerning discovery, because the NZM can be highly invasive and is the only new aquatic invasive species detected in Lake Tahoe in recent years. NZM can outcompete native species and proliferate to high densities; researchers have reported up to 750,000 NZMs per square meter in waterbodies within Yellowstone National Park.

Following the NZM discovery, the Tahoe Science Advisory Council recommended forming a rapid response technical science advisory committee. The NZM invasion Technical Science Advisory Committee (NZM TAC), made up of scientists, convened in early October 2023. They prepared a memorandum advising the Committee about the invasion and the potential impacts of NZM to the Lake Tahoe ecosystem.

In the memorandum, the NZM TAC recommends supplementing ongoing AIS plant monitoring in Lake Tahoe and other Basin waterbodies with surveys for the NZM. The NZM TAC and Committee emphasize the importance of monitoring for NZM prior to aquatic invasive plant removal or other projects in the nearshore of Lake Tahoe, to avoid further spread.

Lake Tahoe Science and Lake Improvement Account

The California State Lands Commission (Commission) collects fees from lakefront property owners that use state lands at Lake Tahoe. The most common uses are pier supports and buoy anchors on the lakebed. In 2013, Senate Bill 630 (SB 630) mandated that the Commission deposit those fees into the Account to support a bi-state science advisory council and nearshore management. As one of the three recipients of Account funding, the Conservancy awards grants for AIS and public lake access projects. To date, the Conservancy has awarded over \$2.7 million in Account funds.

The Conservancy has previously funded AIS projects with Account funds, including surveillance and control work in 2019, 2020, and 2023, and invasive plant control at the Tahoe Keys Complex in 2021. Account funds have also gone to Tahoe RCD to increase

its capacity to coordinate AIS project planning, prioritization, and reporting, and provide programmatic oversight and administration.

Detailed Description of Recommended Action

1. Major Elements and/or Steps of the Recommended Action

Tahoe RCD will employ divers to assess NZM presence or absence at priority sites along the California shoreline of Lake Tahoe. To date, NZM has only been detected along the south shore of Lake Tahoe. Divers will survey the locations where it is known to occur and sites with a high likelihood for future infestation. The divers will apply an intensive survey protocol for the NZM. The intensive NZM protocol will increase the detection probability of this very small species. In addition to surveillance measures, Tahoe RCD will use the grant funding to plan and administer the work, and to purchase a steam cleaner to treat divers' equipment and prevent further spread. The grant does not fund NZM control activities.

2. Overall Context and Benefits

Prevention, early detection, and control are the best defenses against AIS and offer the best hope to successfully manage invasive species infestations in Lake Tahoe. Not much is known about the distribution potential or impact of the NZM on Lake Tahoe's aquatic ecology. The NZM TAC will continue advising the Committee about best practices to reduce impacts from this species. Early monitoring will provide critical information on how widespread the NZM is and what type of environment they inhabit. This fundamental information will help inform those best practices.

Tahoe RCD and Basin partners will use the monitoring to guide future AIS management. Regulatory agencies are very interested in knowing where NZM are in the Lake. This monitoring will inform regulatory agencies' policies for nearshore activities and will help identify any future study needs. In addition, the monitoring informs outreach efforts and next steps for invasive plant control in recreation sites, such as marinas, and to better inform the public on proper inspection and cleaning to limit additional NZM entering the waterways.

The Lake Tahoe AIS prevention and control program faces a range of challenges. Climate change is resulting in warmer winter temperatures, more rain-on-snow events, and warmer water temperatures that increase the risk that AIS spread and establish in new areas. Recreational boating is also increasing, heightening the likelihood of AIS transport that may result in further infestations around Lake Tahoe and its tributaries. Tracking known infestations and rapidly responding to changing conditions provides efficient, effective management that will reduce future program costs.

3. Schedule for the Recommended Action

Tahoe RCD will begin NZM surveys in summer 2024 and anticipates completing all grant activities by the end of 2025.

Financing

Upon approval, staff will execute a grant agreement with Tahoe RCD for up to \$150,000, using funds from the Account. Staff will process the grant as part of its regular workload.

Task	Amount
Project Management	\$26,750
AIS Surveillance	\$100,000
Equipment and Implementation Costs	\$8,250
Administration	\$15,000
Total	\$150,000

Authority

Consistency with the Conservancy's Enabling Legislation

Implementation of this recommended action is consistent with the Conservancy's enabling Legislation. Specifically, Government Code section 66907.7 authorizes the Conservancy to award grants to local public agencies for purposes consistent with its mission.

Consistency with the Conservancy's Strategic Plan

The recommended action is consistent with Strategic Plan Goal 2, Strategy B, by advancing a multiple-benefit project that pairs watershed resilience with water quality protection.

Consistency with the Conservancy's Program Guidelines

The Conservancy has no program guidelines for AIS. The recommended action is consistent with the Conservancy's Grant Guidelines, as the grant will leverage other financial contributions to multiply the value of the Conservancy's investment. The recommended action is also consistent with existing plans and guidance from state and Basin agencies and has public support.

Consistency with External Authorities

The recommended action is consistent with the authority given to the Conservancy through SB 630 pursuant to Public Resources Code section 6217.6.1. The Conservancy informed the SB 630 partner group in advance of the proposal to award this grant and confirmed the group's support. To cohesively address AIS in the Basin, the recommended action advances Action Agenda priorities and implements EIP project 01.03.01.0042. The grant is also consistent with the California Department of Fish and Wildlife's California AIS Management Plan (January 2008).

Compliance with the California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA) Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.), certain classes of activities are statutorily exempt from CEQA or are exempt because they have been determined by the Secretary of the California Natural Resources Agency to have no significant effect on the environment. Staff has evaluated this grant and has found it to be exempt under CEQA. This Project qualifies for a categorical exemption under CEQA Guidelines section 15306, Information Collection, and the California Code of Regulations title 14, section 12102.6. Staff has prepared a notice of exemption (NOE) for the Project (Attachment 2). If the Board approves the recommended action, staff will file the NOE with the State Clearinghouse pursuant to CEQA Guidelines, section 15062.

List of Attachments

Attachment 1 – Resolution 24-06-04

Attachment 2 – Conservancy Notice of Exemption

- Exhibit A – Location Map

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