

AQUATIC INVASIVE PLANT SURVEILLANCE AND CONTROL GRANT AWARD

Recommended Action: Adopt Resolution 26-03-03 (Attachment 1) authorizing a grant to Tahoe Resource Conservation District (Tahoe RCD) for up to \$600,000 to conduct aquatic invasive plant surveillance and control in Lake Tahoe Basin (Basin) wetlands.

Executive Summary: The recommended action will support Tahoe RCD efforts to control aquatic invasive plants in sensitive wetland habitats adjacent to Lake Tahoe. Aquatic invasive species (AIS) threaten the Lake's ecology and world-famous clarity, and the regional economy. Tahoe RCD will perform two years of underwater diver surveys and remove invasive plants across four large wetlands to restore natural biological and physical habitat conditions. Each year, Tahoe RCD anticipates surveying over 360 acres and treating over 180 acres. This work is critical to comprehensively restore the largest remaining marshes and wetlands on Lake Tahoe's south and west shores. The Lake Tahoe AIS Program (Program) has prioritized these locations for control efforts to improve important wetland ecosystems, support future restoration, and protect Lake Tahoe from further infestations.

This grant advances the Lake Tahoe Environmental Improvement Program (EIP) goals to control AIS and protect native species in the region. The recommended action advances the Conservancy's Strategic Plan goals to Restore the Basin's Social and Ecological Resilience and Safeguard the Basin's Environmental, Cultural, Tribal, and Recreational Attributes for Future Generations. Upon Board authorization, staff will execute the grant agreement and take all other necessary implementation steps.

Location: Wetland sites in El Dorado County along the shoreline of Lake Tahoe. The sites include Pope Marsh, Taylor Creek Marsh and Tallac Creek, Meeks Creek, and the Upper Truckee Marsh (Attachment 2).

Fiscal Summary: Staff seeks authorization to award up to \$450,000 from the Lake Tahoe Science and Lake Improvement Account (Account) and \$150,000 from Proposition 68. Conservancy staff will process the grant agreement as part of its regular workload.

Overview

History

AIS are non-native plants, animals, or microorganisms that cause harm to the environment in freshwater or marine ecosystems, as well as economies and human health. Worldwide, AIS are a leading cause of biodiversity loss and habitat degradation. In the United States alone, AIS cause an estimated \$123 billion in damages annually. AIS threaten waterways throughout the nation, as they can impair drainage infrastructure and recreation, reduce water quality, and degrade wildlife habitat. As with other areas in the American west, invasive plants, fish, invertebrates, and amphibians are impacting Lake Tahoe.

Specifically, invasive plants such as Eurasian watermilfoil and curlyleaf pondweed form dense mats that crowd out native plants and create stagnant, warm-water pockets. Exacerbated by the rising air and water temperatures expected from climate change, the conditions invasive plants create also favor invasive warm-water fish, which displace native cold-water species. Invasive New Zealand mudsnails (detected in 2023) offer no nutritional value to native fish, effectively starving them and upending the native food web. Dense invasive plant material in marinas and along the shoreline of Lake Tahoe impact recreation, which drives the regional tourism economy. AIS also impact Lake Tahoe water quality as invasive clams and plants alter nutrient cycles, fueling algal blooms that degrade nearshore clarity.

The Program's mission is to prevent, detect, and control aquatic invasive species so that future generations can enjoy Lake Tahoe. The Tahoe Regional Planning Agency (TRPA) and Tahoe RCD lead the Program, which is a collaborative effort among multiple public and private partners, including the Conservancy. The TRPA and Tahoe RCD work with partners to establish policy, guide the Program, and perform AIS prevention, control, and monitoring. Federal, state, regional, and private sources all provide funding and support.

The Conservancy has been an integral Program partner for more than 18 years. The Conservancy used funding from the U.S. Army Corps of Engineers to advance early Program activities and in recent years has granted Proposition 1 and Account funding, authorized by Senate Bill 630 (2013), for AIS management. Most importantly, the Conservancy, in coordination with the TRPA and Tahoe RCD, led the development of the 2019 Lake Tahoe Region Aquatic Invasive Species Action Agenda (Action Agenda) to establish a comprehensive AIS surveillance and control strategy.

The Program uses the Action Agenda to identify prevention, monitoring, and control activities. Through these activities, partners limit the spread of existing AIS populations and eradicate them where possible, resulting in reduced harm caused by AIS. The Action Agenda outlines strategies to address regional AIS issues and defines outcome-based performance metrics. It emphasizes increasing the pace and scale of AIS control efforts and identifies the resources

needed to achieve specific targets. The Program is collaboratively working to implement the strategies highlighted in the following sections.

AIS Prevention

The Program conducts prevention efforts to stop new AIS from entering the Lake. The Watercraft Inspection Program began in 2008, after resource managers detected invasive quagga mussels in nearby waterbodies. Basin partners led the way in AIS prevention efforts in the western states, and the Program manages several motorized watercraft inspection and decontamination stations. The Program has completed over 123,000 inspections and intercepted hundreds of boats with AIS, preventing new species from entering the Lake. The Tahoe Keepers program educates non-motorized boaters about the importance of cleaning, draining, and drying all watercraft and gear.

AIS Monitoring

AIS monitoring, surveillance, and rapid response are critical to track progress and prevent further spread. Identifying new populations early allows Tahoe RCD to quickly treat an infestation while it is small, reducing the cost of control. Tahoe RCD is using investments from the Conservancy and other partners to monitor past infestation sites and known invasive plant “hotspots.” Project level and lake-wide surveillance and monitoring are critical to tracking progress towards the goals of the Action Agenda.

AIS Control

The Program implements control projects to reduce or eradicate AIS. Tahoe RCD and partners treat aquatic invasive plant populations using bottom barriers and diver-assisted hand pulling or suction. The Program is also exploring Ultraviolet-C (UV) light as a method to control aquatic invasive plant populations. Through monitoring, partners have confirmed that control efforts have succeeded in limiting spread, decreasing plant populations, and eradicating invasive plants in some locations, including Emerald Bay. Successful control typically requires multiple rounds of surveillance and treatment in each location over several years. Repeat rounds ensure that the Program does not lose the benefits of an initial treatment and provides an adaptive approach to guide ongoing investments. The Program also considers efforts to control invasive fish, invertebrates, and amphibians, but controlling these is more challenging and cost prohibitive.

Tahoe Keys

The Tahoe Keys remain a source of invasive plants and other species that can easily spread to other parts of Lake Tahoe through human activities and natural processes. Given the importance of the Tahoe Keys as an AIS source, the Action Agenda acknowledges that the goal of lake-wide AIS eradication depends on successfully controlling AIS in the Tahoe Keys. The Program and Tahoe Keys Property Owners Association (TKPOA) have invested significant effort and funding to manage AIS in the Tahoe Keys. The TKPOA implements a harvesting program to remove plant material and maintain navigation. The TKPOA is also testing

innovative approaches to inform a long-term management strategy. These include using UV light and bottom barriers to reduce populations, installing bubble curtains to contain plant fragments, and applying aquatic herbicides.

Detailed Description of Recommended Action

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

Tahoe RCD will plan and implement aquatic invasive plant surveillance and treatments in 2026 and 2027 at Pope Marsh, Taylor Creek Marsh and Tallac Creek, Meeks Creek, and the Upper Truckee Marsh, to ensure no new infestations occur. The Action Agenda identifies these four wetland locations as priorities because they provide invaluable and unique habitats, and because they are directly connected to Lake Tahoe, and therefore critical to achieve Basinwide goals. Tahoe RCD will employ divers to assess sites and remove plants by hand, including multiple treatments at the sites each year. Divers and staff will complete biological assessments at the survey locations, noting habitat conditions and presence or absence of significant native and non-native species, including plants, fish, invertebrates, and amphibians. This grant focuses on controlling the primary invasive plant species of concern, curlyleaf pondweed and Eurasian watermilfoil.

The Conservancy, Washoe Tribe of Nevada and California (Washoe Tribe), TRPA, and USDA Forest Service, Lake Tahoe Basin Management Unit (LTBMU) have completed large-scale removal of aquatic invasive plants, and wetland and meadow restoration, at the proposed treatment sites. The Conservancy and its partners have invested significant funding to acquire, protect, and restore these areas, as they provide remarkable biological and habitat value. Additional aquatic invasive plant surveillance and control work is critical to protect these past investments and support comprehensive ecological protection and restoration in large wetlands adjacent to Lake Tahoe.

The scale of work to monitor and manage these wetland sites for aquatic invasive plants is significant, but evidence indicates that ongoing efforts are effective. The proposed grant and other match funding would support Tahoe RCD in performing over 360 acres of monitoring and 180 acres of treatment per year in critical wetland habitats. As a comparison, typical plant populations within the Lake are under one acre in size, with a few ranging from two to ten acres. The wetlands also require more intensive monitoring and hand removal work than sites within Lake Tahoe due to the presence of native plants and muddy bottom conditions. However, once Tahoe RCD and partners remove the invasive plants and reduce the sources of spread, native species can thrive, and ongoing management needs will diminish. Preliminary data at Taylor Creek Marsh indicate that native plant species growing in the marsh may be preventing invasive plants from recolonizing in these wetlands.

2. Overall Context and Benefits

Prevention, early detection, and control are the best defenses against AIS to successfully manage infestations in Lake Tahoe and adjacent wetlands. Although aquatic invasive plants can

be difficult and costly to control once they are established, the Program's strategy has demonstrated efficacy in reducing infestations over the last decade. Without ongoing surveillance and control, it is likely that invasive plant populations will grow and spread in new locations or re-establish and threaten completed and planned restoration work.

AIS management improves ecosystem health, water quality, recreation, and scenic standards, and protects Lake Tahoe's biodiversity. Controlling invasive plants in nearshore wetland sites improves these critical habitats for native aquatic and riparian dependent species and increases resilience to climate change. Removing invasive plants restores habitat for native fish species such as Lahontan cutthroat trout, and makes the nearshore habitat less suitable for nonnative warm-water fish. With more frequent droughts and warming temperatures expected from climate change, preventing aquatic invasive plants from establishing and further increasing water temperatures is important. Removing plant material and reducing algae growth in wetlands and along the shoreline provides enhanced recreational experiences by improving water clarity and aesthetics. Implementing the Program will result in fewer invasive plant fragments infesting other locations, including Lake Tahoe, protecting the significant ongoing lake-wide efforts to control invasive plants.

The aquatic invasive plant control work under the recommended action is critical to comprehensively restore the largest remaining marshes and wetlands on Lake Tahoe's south and west shores. Current and future restoration work by the Washoe Tribe and LTBMU at Máyala Wáta (Meeks Meadow), upstream of the Meeks Creek site, requires ongoing AIS management to support ecological objectives. The LTBMU is restoring the Taylor and Tallac Creek watershed and has invested over \$4 million to treat these wetlands, the Basin's largest invasive plant control effort to date. AIS control is the first step before the LTBMU can perform additional wetland restoration in that watershed and complete this regionally significant effort. The Conservancy completed the Upper Truckee Marsh Restoration Project in 2025, including controlling aquatic invasive plants in the Upper Truckee River and the associated new and restored wetlands and lagoons. The recommended funding for surveillance and control in the Upper Truckee Marsh will protect habitat and biodiversity in Lake Tahoe's largest remaining wetland.

3. Schedule for the Recommended Action

Tahoe RCD will complete all grant activities between spring 2026 and the end of 2027.

Financing

Upon approval, the grant will total up to \$600,000, including \$450,000 from the Account and \$150,000 from Proposition 68. The Proposition 68 funding is necessary to augment existing Account funds and ensure Tahoe RCD can complete all work. Conservancy staff will process the grant agreement as part of its regular workload. Staff anticipates the following expenditures as part of the grant.

Task	Amount
Project Management and Administration	\$46,040
Aquatic Invasive Plant Surveillance and Removal	\$528,400
Equipment and Implementation Costs	\$5,300
Indirect	\$20,260
Total	\$600,000

Senate Bill 630 requires partner collaboration and matching funds. The Conservancy coordinates and selects projects through a collaborative process with key partners, including the Tahoe Lakefront Homeowners Association. Staff has met with partners, who showed support for the recommended grant of Account funds. Senate Bill 630 also requires that the Conservancy or another public entity match Account funds, but does not specify a match percentage. The total funding to perform all work under the recommended grant is almost \$2.25 million. Tahoe RCD has secured funds from the TRPA, as well as federal Lake Tahoe Restoration Act funding administered by the TRPA, as shown below. This external funding provides substantial match for the recommended Account funds.

Source	Amount
TRPA	\$400,000
Lake Tahoe Restoration Act	\$1,248,750
Proposed Conservancy funding	\$600,000
Total	\$2,248,750

Authority

Consistency with the Conservancy’s Enabling Legislation

The 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 goals to Restore the Basin’s Social and Ecological Resilience and Safeguard the Basin’s Environmental, Cultural, Tribal, and Recreational Attributes for Future Generations.

Consistency with the Conservancy’s Program Guidelines

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, is consistent with existing plans and guidance from state and Basin agencies, and has partner support.

Consistency with External Authorities

The recommended action is consistent with the authority given to the Conservancy through **Senate Bill 630 pursuant to Public Resources Code section 6217.6.1. The Conservancy informed the Senate Bill 630** stakeholder 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 01.03.01.0048, Aquatic Invasive Species Monitoring and Habitat Protection Project. 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

Tahoe RCD, acting as the lead agency, prepared an initial study/mitigated negative declaration (IS/MND) and a mitigation monitoring and reporting program (MMRP) for the Lake-Wide Control of Aquatic Invasive Plants Project to comply with the California Environmental Quality Act (CEQA). Tahoe RCD adopted the IS/MND and MMRP (Attachment 3) on January 12, 2021, and filed a notice of determination (NOD) the same day. A copy of the IS/MND and MMRP is available for public review on [Tahoe RCD's website](https://www.tahoercd.org/aquatic-invasive-species-publications-helpful-links) at <https://www.tahoercd.org/aquatic-invasive-species-publications-helpful-links> or upon request. On March 18, 2021, the Conservancy Board reviewed and considered the Lake-Wide Control of Aquatic Invasive Plants Project MND and adopted the Tahoe RCD's Mitigation Monitoring Plan.

Staff reviewed the MND and believes that the proposed surveillance and treatment activities are within the scope of the MND and have been adequately analyzed. If the Board concurs and authorizes the grant, staff will file an NOD with the State Clearinghouse pursuant to CEQA guidelines, section 15096 (Attachment 3).

List of Attachments

Attachment 1 – Resolution 26-03-03

Attachment 2 – Location Map

Attachment 3 – Conservancy NOD

- Exhibit A – NOD Map
- Exhibit B – Filing Fee Receipt

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