

COASTAL CONSERVANCY

Staff Recommendation

June 15, 2017

**Madrona Marsh Vernal Pool Restoration**

Project No. 16-051-01

Project Manager: Sam Jenniches

**RECOMMENDED ACTION:** Authorization to disburse up to \$469,900 to Friends of Madrona Marsh to implement a freshwater vernal pool restoration project at Madrona Marsh in the City of Torrance in Los Angeles County.

**LOCATION:** Madrona Marsh, City of Torrance, Los Angeles County

**PROGRAM CATEGORY:** Integrated Coastal and Marine Resource Protection

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**EXHIBITS**

Exhibit 1: [Project Location and Site Map](#)

Exhibit 2: [Project Letters](#)

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**RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of up to four hundred and sixty-nine thousand, nine hundred dollars (\$469,900) to Friends of Madrona Marsh (FOMM) to implement a freshwater vernal pool restoration project at Madrona Marsh in Los Angeles County, subject to the following condition:

Prior to the disbursement of funds, FOMM shall submit for the review and written approval of the Conservancy’s Executive Officer a work program, including budget and schedule; names of any contractors to be retained for project work; a written agreement between FOMM and the City of Torrance sufficient to enable FOMM to implement and maintain the project; and documentation that all funds needed to complete the project have been secured.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resource protection.
  2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
  3. The Friends of Madrona Marsh is a nonprofit organization qualified under section 501(c)(3) of the U.S. Internal Revenue Code, and its purposes are consistent with Division 21 of the Public Resources Code.”
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**PROJECT SUMMARY:**

Staff recommends the disbursement of up to \$469,900 to Friends of Madrona Marsh (FOMM) to implement the Madrona Marsh Vernal Pool Restoration Project at the Madrona Marsh Preserve (the Preserve) in the City of Torrance in Los Angeles County.

The Madrona Marsh Vernal Pool Restoration Project will restore and enhance up to four acres of critically important vernal pool wetland habitat by re-establishing the floodplain surrounding three vernal pools. Vernal pools are seasonal depressional wetlands created by water draining into a terminal location with a constraining layer below. A careful grading process performed predominantly by hand will restore natural contours and direct runoff to the pools. A natural plant barrier will be created to block weed seeds from entering the restoration area. To re-establish native vernal pool flora, FOMM volunteers and contractors will remove invasive, non-native plant species and seeds. Beneficial native plants will be propagated in the Preserve’s on-site nursery and planted in the project area. Other native plants will be grown directly from seed in the project area. These plantings will be irrigated via the slow-drip bucket method, drip hoses, and hand watering until plants are well-established.

It is estimated that California has lost approximately 90% of its historical inventory of vernal pools, which provide habitat for numerous rare plants and animals that are unique to the vernal pool ecosystem. The Preserve is believed to be home to among the last remaining freshwater vernal pools in Los Angeles County and provides critical habitat to the federally listed Riverside Fairy Shrimp and San Diego Fairy Shrimp as well as the rare southern Tarplant among numerous other species. The Preserve’s former use as an oil field resulted in alteration of the historical topography that created the vernal pool ecosystem. Current drainage patterns do not sufficiently support proper pooling of rainfall and, combined with severe drought and invasive species presence, have put the vernal pool habitat in the vulnerable position of a potential total collapse without restoration. The Preserve also functions as a vital habitat location along the Pacific flyway for migratory birds and as an important wetland that supports safe development of natal amphibian and invertebrate species in an environment absent competition or predation from fish species.

The Friends of Madrona Marsh is a nonprofit, community-based, volunteer organization whose goal is to work for the preservation, restoration, and appropriate use of the Preserve. Toward these ends, FOMM pursues restoration and enhancement of Preserve habitats, offers programs to educate the community about the natural history of the South Santa Monica Bay, maintains an

active volunteer program, and conducts fundraising to support the Preserve and its Nature Center.

**Site Description:** The Madrona Marsh Preserve contains some of the last remaining traces of the extensive marshland that once covered southern California's coastal plain. Its vernal pools are likely the last remaining freshwater vernal pools in Los Angeles County. Additionally, its coastal prairie complex is considered the largest remaining in the State. Expansive development in Southern California has removed nearly all of the coastal freshwater wetlands. The 45-acre Preserve is surrounded by the City of Torrance. The Preserve site contains several habitats including back dune, coastal prairie, alkali margin, vernal pool, and seasonal wetland areas. The Preserve is home or a rest stop to more than 100 special status-listed species (flora and fauna). The Los Angeles County General Plan has designated Madrona Marsh Preserve as a Significant Ecological Area (SEA), because it contains irreplaceable biological resources. The Madrona Marsh Preserve and its adjacent Nature Center are owned and operated by the City of Torrance.

The Preserve is on the site of a former oil extraction operation. Oil extraction began at the site in the 1920's and continued until the last remaining wells were capped and sealed in 2005. The most recent drilling operation, Drill Site 60, was remediated in 2005. At the time of remediation, the contractor performed field and photographic analysis for the entire Preserve complex and identified locations of expected impacted soils. Soils pit analysis was also performed in 2005 using a representative sampling method over the entire Preserve. The proposed project involves grading at the remediated Drill Site 60 as well as a small area adjacent Plaza del Amo road.

**Project History:** In May of 1988, the State of California and the U.S. Environmental Protection Agency (US EPA) added Santa Monica Bay to the National Estuary Program (NEP). Established under the Water Quality Act of 1987 and managed by the US EPA, the NEP includes more than two dozen significant estuaries and coastal water bodies nationwide. The ensuing 1995 Santa Monica Bay Restoration Plan (Bay Plan) created the blueprint for the Bay's long-term recovery and identified 250 actions, including specific actions focused on habitat conservation, enhancement and restoration, pollution prevention and treatment control, and assessment, education, and monitoring. The proposed restoration project is consistent with the 1995 Bay Plan recommendations for restoration of the wetlands of Madrona Marsh.

The Safe Neighborhood Parks, Clean Water, Clean Air and Coastal Protection Bond Act of 2000 (Proposition 12) earmarked \$25,000,000 to the Conservancy for restoration of Santa Monica Bay in accordance with the goals and priorities of the Bay Plan. Conservancy staff worked with the Santa Monica Bay Watershed Council to identify projects that would act to implement the Bay Plan. The Conservancy approved the list of projects in 2001. In April 2002, the Conservancy authorized disbursement of up to \$780,000 to the City of Torrance for the installation of water quality and habitat improvements at Madrona Marsh. The proposed project will build upon the Conservancy's previous investment.

**PROJECT FINANCING**

<b>Coastal Conservancy</b>	\$469,900
Friends of Madrona Marsh	\$49,980
<b>Project Total</b>	<b>\$519,880</b>

The expected source of funding for this authorization is the fiscal year 2016/17 appropriation to the Conservancy from the “Water Quality, Supply, and Infrastructure Improvement Act of 2014” (Proposition 1, Division 26.7 of the Water Code, § 79700 *et seq*). Funds appropriated to the Conservancy derive from Chapter 6 (commencing with Section 79730) and may be used “for multi-benefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state” (Section 79731). Section 79732(a) identifies the specific purposes of Chapter 6. The proposed project will achieve these specific purposes as follows: implements a watershed adaptation project in order to reduce the impacts of climate change on California’s communities and ecosystems (subsection (a)(2)); protects and restores coastal watersheds (subsection (a)(10)); and reduces pollution or contamination of rivers and streams, and protects or restores natural system functions that contribute to water supply, water quality, or flood management (subsection (a)(11)).

The proposed project was selected through the fourth-round competitive grant process under the Conservancy’s *Proposition 1 Grant Program Guidelines* adopted in June 2015 (see § 79706(a)). The proposed project meets each of the evaluation criteria in the Proposition 1 Guidelines as described in further detail in this “Project Financing” section, the “Project Summary” section and in the “Consistency with Conservancy’s Project Selection Criteria & Guidelines” section of this staff recommendation.

**CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:**

The proposed project will be undertaken pursuant to Chapter 5.5 of Division 21 (Section 31220), regarding coastal and marine resource protection.

Consistent with Section 31220(a), the Conservancy may provide grants for coastal watershed and coastal water quality, sediment management, and resources protection projects, provided that those projects meet one or more of the objectives detailed in 31220(b). The proposed project meets the objectives of Section 31220(b) (2) and (6) regarding Conservancy authorization for projects that protect or restore fish and wildlife habitat within coastal and marine waters and coastal watersheds, and that protect, and restore coastal wetlands, riparian areas, floodplains, and other sensitive watershed lands. Implementation of the Madrona Marsh Vernal Pool Restoration Project will restore and protect critical and rare wetland habitat in a coastal watershed.

Consistent with Section 31220(a), Conservancy staff has consulted with the State Water Resources Control Board in the development of the proposed project to ensure consistency with Chapter 3 (commencing with Section 30915) of Division 20.4 of the Public Resources Code. In addition, consistent with Section 31220(c) the proposed project will include a monitoring and evaluation component and is consistent with regional, local or State watershed management and water quality plans or programs, as described in the “Consistency with Local Watershed Management Plan/State Water Quality Control Plan” section, below.

**CONSISTENCY WITH CONSERVANCY'S 2013 STRATEGIC PLAN  
GOAL(S) & OBJECTIVE(S), AS REVISED JUNE 25, 2015:**

Consistent with **Goal 5, Objective 5B** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will restore three vernal pools in up to 4 acres of seasonal wetland/coastal prairie habitat.

**CONSISTENCY WITH CONSERVANCY'S  
PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on October 2, 2014, in the following respects:

**Required Criteria**

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section, above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section, above.
3. **Promotion and implementation of state plans and policies:**
  - a. *California @ 50 Million: The Environmental Goals and Policy Report* (Governor's Office of Planning and Research, 2013 Draft). The proposed project will promote the following goals: *Preserve and Steward State Lands and Natural Resources - 3. Build resilience in natural systems.* The proposed project will build resilience by restoring native vernal pool habitat which will provide important carbon sequestration capacity while also providing the state's native resident and migratory species necessary habitat.
  - b. *CA Climate Adaptation Strategy: Safeguarding California* (California Department of Fish and Wildlife, 2010). The proposed project will serve to implement priority actions of this Strategy under the heading "Biodiversity and Habitat; Energy; Public Health and Water", because vernal pool restoration will improve habitat connectivity; support environmental stewardship across sectors by promoting nature-based solutions for adapting to climate risks; and create and maintain partnerships that support biodiversity conservation and promote public education and outreach.
  - c. *California's Wildlife Action Plan* (California Department of Fish and Wildlife, 2007). The proposed project will further *Conservation Strategy 7 (Management Planning): Engage in local planning to encourage the use of bio (soft)-engineering for flood control, retention of functional floodplains, and deterrence and capture of waste and pollution.* *Objective(s): Restore ephemeral and perennial surface water flows to mimic historic patterns of flooding and low-flow patterns (+/- 25 percent), maintain low flows to sustain aquatic species,* through the restoration to historic function of the vernal pool ecosystem.

- d. *Los Angeles County General Plan 2035* (Los Angeles County, 2015). The proposed project will be implemented in a designated Significant Ecological Area (SEA) under Los Angeles County's SEA Program in *Chapter 9: Conservation and Natural Resources Element* of the General Plan. The proposed project is consistent with Open Space Policy C/NR 1.2: *Protect and conserve natural resources, natural areas, and available open spaces*, as well as Biological Resources Policies C/NR 3.1: *Conserve and enhance the ecological function of diverse natural habitats and biological resources*, C/NR 3.3: *Restore upland communities and significant riparian resources, such as degraded streams, rivers, and wetlands to maintain ecological function—acknowledging the importance of incrementally restoring ecosystem values when complete restoration is not feasible*, and C/NR 3.6: *Assist state and federal agencies and other agencies, as appropriate, with the preservation of special status species and their associated habitat and wildlife movement corridors through the administration of the SEAs and other programs*. The proposed project is consistent with these policies because it will restore critical and rare freshwater wetland and coastal prairie habitat that benefit special status species.
  - e. *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (U.S. Fish and Wildlife Service). The proposed project's vernal pool restoration is consistent with *Recovery Objective: Promote natural ecosystem processes and functions by protecting and conserving intact vernal pools and vernal pool complexes within the recovery planning area to maintain viable populations of listed species and species of concern, and prevent additional threats from emerging over time. By doing so other vernal pool species that may be considered common today, and additional species that have not yet been identified or described, will be adequately conserved so that they will never need the protection of the Endangered Species Act*.
4. **Support of the public:** The proposed project is supported by the City of Torrance, the South Coast Chapter of the California Native Plant Society, and the Palos Verdes South Bay Audubon Society.
  5. **Location:** Madrona Marsh is located in the City of Torrance in Los Angeles County, approximately 2.5 miles from the coast. It is located in the Santa Monica Bay watershed.
  6. **Need:** Without Conservancy funding, the proposed project will be delayed indefinitely, jeopardizing a rare coastal vernal pool ecosystem.
  7. **Greater-than-local interest:** The proposed project will restore habitat believed to be otherwise absent in Los Angeles County, that is rare regionally and statewide, and that is important habitat on the Pacific Flyway.
  8. **Sea level rise vulnerability:** At an elevation of approximately 80', the Madrona Marsh Preserve is not vulnerable to sea level rise.

#### **Additional Criteria**

9. **Urgency:** The Madrona Marsh is a designated Los Angeles County Significant Ecological Area (SEA) because it contains biotic resources considered rare or unique. Restoration of the Preserve will help prevent potential permanent vernal pool species loss.

10. **Leverage:** See the “Project Financing” section, above.
11. **Innovation:** FOMM has developed restoration techniques through its prior vernal pool restoration on the Preserve that have proven effective and innovative. The proposed project will use a keystone berm of clay soils to prevent leakage from the vernal pools. The proposed project will also use native plants on berms to prevent invasive seeds from moving into the restoration area. Both techniques were developed and used effectively at the Madrona Marsh Preserve.
12. **Readiness:** FOMM is motivated to move quickly upon Conservancy authorization of the proposed project. Matching funds and in-kind services are in place.
13. **Realization of prior Conservancy goals:** See “Project History” section, above.
14. **Return to Conservancy:** See “Project Financing” section, above.
15. **Cooperation:** Management of the Preserve is a collaboration between the City of Torrance, FOMM and volunteers. The proposed project will involve these same partners.
16. **Minimization of greenhouse gas emissions:** The proposed project is designed to minimize the production of greenhouse gas emissions, because most of the work will be completed by hand. Only limited use of mowers and trenching equipment will be utilized for the corrective grading and restoration (weeding/planting). The urban greening aspects of the proposed project (planting approximately 13,000 native plants and shrubs) are significant and have many long-term sustainability benefits including mitigation of greenhouse gas emissions.

**CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/  
STATE WATER QUALITY CONTROL PLAN:**

The proposed project is consistent with the Greater Los Angeles County Integrated Regional Water Management Plan Open Space for Habitat and Recreation Plan, Chapter 7.4 Open Space and Ecosystem Services, Preserving Biodiversity, in that the proposed project will preserve biodiversity of a rare freshwater ecosystem and its associated flora and fauna. The proposed project is also consistent with Chapter 4.1 “Habitat Planning Targets for Freshwater Wetlands.” These targets call for the protection, enhancement, and restoration of wetland habitat. The proposed project at Madrona Marsh Preserve will restore and protect this freshwater wetland that includes vernal pools, a unique “micro-wetland” within the marsh.

**COMPLIANCE WITH CEQA:**

The proposed project is categorically exempt from review under the California Environmental Quality Act pursuant to 14 California Code of Regulations Section 15333, which exempts small habitat restoration projects, because the proposed project satisfies all the conditions of this exemption, as follows:

- (a) The proposed project is a freshwater vernal pool restoration project the primary purpose of which is to improve conditions for species that rely on wetland habitat;
- (b) The proposed project is not greater than five acres in size;

- (c) The proposed project does not create a significant adverse impact on endangered, rare or threatened species or their habitat pursuant to Section 15065;
- (d) There are no hazardous materials at or around the project site that may be disturbed or removed; although the project site is a former oil field, the site has been remediated; and
- (e) The proposed project will not result in impacts that are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Upon approval, staff will file a Notice of Exemption for this project.