

COASTAL CONSERVANCY

Staff Recommendation
September 28, 2017

DOWNTOWN REDWOOD CITY CREEK RESTORATION PROJECT

Project No. 17-025-01
Project Manager: Kelly Malinowski

RECOMMENDED ACTION: Authorization to disburse up to \$259,400 to Acterra: Action for a Healthy Planet for restoration of a degraded reach of Redwood Creek, installation of interpretive signs, and associated community engagement, in the City of Redwood City, San Mateo County.

LOCATION: Redwood Creek, City of Redwood City, County of San Mateo

PROGRAM CATEGORY: San Francisco Bay Program

EXHIBITS

- Exhibit 1: [Project Location Maps](#)
 - Exhibit 2: [Project Site and Design](#)
 - Exhibit 3: [Project Photos](#)
 - Exhibit 4: [Project Letters](#)
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160-31165 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed two hundred and fifty-nine thousand four hundred dollars (\$259,400) to Acterra: Action for a Healthy Planet (“Acterra”) to restore a degraded reach of Redwood Creek, install interpretive signs, and conduct associated community engagement, in the City of Redwood City, San Mateo County, subject to the following condition:

1. The project shall not commence and no Conservancy funds shall be disbursed for the project until the Executive Officer of the Conservancy has reviewed and approved in writing:
 - a. A detailed work program, schedule, and budget.
 - b. Names and qualifications of any contractors to be employed in carrying out the project.
 - c. A plan for signage that acknowledges Conservancy funding.

- d. Documentation that all permits and approvals required for the project under federal, state, and local law have been obtained.
- e. Evidence that Acterra has entered into a written agreement with the City of Redwood City sufficient to enable Acterra to carry out and maintain the project.”

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 4.5 of Division 21 of the Public Resources Code, regarding the San Francisco Bay Area Conservancy Program.
 - 2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
 - 3. Acterra is a nonprofit organization existing under section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code.”
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PROJECT SUMMARY:

The proposed project would allow Acterra: Action for a Healthy Planet (Acterra), working through its sponsored program Grassroots Ecology, to improve the ecological function and health of the riparian corridor of Redwood Creek in San Mateo County by removing and suppressing invasive plants along both banks totaling 800 linear feet, removing 20-40 non-native palm trees, installing 2,000 locally-sourced native grasses, forbs, and shrubs and at least 40 native trees, installing 15-20 native trees along the street near the creek to expand the riparian corridor beyond the immediate creek bank, clearing trash from the riparian zone along both sides of the creek, and installing interpretive signage as part of the project.

The current condition of this stretch of Redwood Creek is one of neglect. The creek banks are littered with trash and dominated by invasive plants, and unmaintained exotic palm trees at the top of the bank have grown so dense that they obstruct views to the creek. There are also homeless encampments present at the site, amongst the palm trees at the top of the creek bank.

This segment of Redwood Creek is the uppermost reach of the estuarine transition zone in the Creek and it experiences tidal flows. This segment is also important for connectivity between the restored marshland and upland terrestrial habitat, as well as for refugia for species such as the endangered salt marsh harvest mouse. The proposed project will improve water quality and watershed health by removing trash and debris and improving soil conditions, which will treat stormwater, and by increasing native plant biodiversity, cover, habitat connectivity, and wildlife refugia within this ecologically important zone.

The project will also enhance public green space by removing the dense palm trees to open views, providing benefits to a planned Creekside trail that is affiliated with the adjacent housing project, through its native plantings and educational signage. The educational signage is expected to be coordinated with the adjacent affordable housing development, and will be located where

best viewed by the public. Lastly, the proposed project will expand urban forest through the planting of approximately 60 native trees in the neighborhood, including 40 along the creek corridor, which will increase tree canopy, mid-level understory plants, shade, and cover, thereby reducing the urban heat island effect and capturing stormwater.

The proposed project will engage diverse sectors of the community in project implementation by holding 20 community workdays that involve an estimated 300 volunteers in creek restoration (including native plantings, invasive plant removal, and sheet mulching). Grassroots Ecology will partner with a City of Redwood City urban forestry nonprofit, City Trees, to hold 2-3 street tree planting and maintenance events for the community, will hold 7 Conservation Corps work days to involve and educate disadvantaged young adults, and will coordinate habitat restoration with the adjacent affordable housing construction as it pertains to creek-side trail design and landscaping. The City of Redwood City will also work with local homeless services provider, LifeMoves, to provide support services to the local homeless population and to help keep the creek area clean.

Acterra, based in Palo Alto, is a nonprofit organization with the mission to bring people together to create local solutions for a healthy planet. Acterra and its predecessor organizations, Peninsula Conservation Center and Bay Area Action, developed innovative programs for wetlands, watershed and habitat conservation, as well as programs centered on sustainable urban living. Acterra serves as the fiscal sponsor for Grassroots Ecology, which is the program that will be implementing the project and carrying out the work. Acterra also provides fiscal sponsorship to other organizations and initiatives within the Silicon Valley area, and has provided fiscal sponsorship in the past for the following Conservancy-funded projects: the San Francisquito Creek Watershed Steelhead Recovery Project, the Arastradero Preserve Restoration Project, and the Bay Trail Enhancement Project.

Grassroots Ecology (previously known as the Acterra Stewardship Program, prior to July 1, 2016), has a mission to leverage the power of community volunteers to create healthy ecosystems across Silicon Valley, from the foothills to San Francisco Bay. Grassroots Ecology has over two decades of experience with invasive plant management and native plant restoration in Silicon Valley watersheds. Grassroots Ecology engages 11,000 youth and adults annually to protect and improve eight Silicon Valley watersheds in ten cities and two counties, Santa Clara and San Mateo. Working together with public and partner agencies, Grassroots Ecology restores riparian habitats and natural lands, reduces, monitors, and prevents water pollution, enhances water conservation and stormwater capture, and preserves local biodiversity.

Site Description: The project site is a 400-foot reach of Redwood Creek that flows through downtown Redwood City, extending from the outfall of the pump station at Bradford Street to Veterans Boulevard. The property is owned by the City. Just 0.75 miles downstream of the project site, Redwood Creek meets a network of sloughs and the Bair Island Restoration Project, part of the Don Edwards San Francisco Bay National Wildlife Refuge. The project site is part of the tidal-terrestrial transition zone, important for connectivity between the restored marshland and upland terrestrial habitat, which can provide refugia for endangered species, such as the salt marsh harvest mouse. This particular segment of Redwood Creek is the uppermost reach of transition zone habitat available in the watershed. It experiences tidal flows, with the low benches colonized by native tidal marsh zone vegetation including pickleweed, jaumea, and salt marsh gumplant on the lower edges of the creek bank. Further up the riparian zone, native plants

give way to invasive fennel and other exotic herbaceous perennials and annual grasses. Dozens of unmaintained palm trees, as well as black acacia trees, have colonized the top of the bank area, completely obscuring the creek from certain vantage points. Additionally, the creek banks are currently littered with trash and are occupied by several homeless individuals. In addition to the 400-foot reach of Redwood Creek, the project site includes the surrounding neighborhood where 15-20 street trees will be planted along the street near the creek to expand the riparian corridor.

Project History: The Conservancy has successfully worked with Acterra on similar restoration projects in the past. On October 23, 2003, the Conservancy authorized \$233,000 for the San Francisquito Creek Watershed Steelhead Recovery Project, which developed designs for improved fish passage at barriers within the San Francisquito Watershed, removed exotic vegetation and revegetated targeted reaches, and developed stewardship materials for the entire watershed. On December 13, 2007, the Conservancy approved \$72,000 for the Arastradero Preserve Restoration Project, which provided environmental restoration and stewardship at the Pearson, Arastradero Preserve. On October 3, 2013, the Conservancy approved \$35,000 for the Bay Trail Enhancement Project to engage the south bay community to participate in coastal enhancement of a 1.3-mile stretch of the Bay Trail in East Palo Alto, San Mateo County.

In addition to Conservancy work with the proposed grantee, the Conservancy has also invested in the region, and one of the Conservancy’s bigger projects in the San Francisco Bay, the Bair Island Restoration Project, is just downstream from Redwood Creek, adjacent to where Redwood Creek spills out into the San Francisco Bay less than a mile from the proposed project area. In addition to nearby restoration work, the Conservancy also recently funded Sea Change San Mateo County, a sea level rise vulnerability assessment and adaptation planning effort that covered the shoreline of the planning area.

PROJECT FINANCING

Coastal Conservancy	\$259,400
City of Redwood City	\$30,000
Project Total	\$345,200

The expected source of funding for this authorization of \$259,400 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 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, of which the following pertain to this project: Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors (subsection (a)(4)); protect and restore rural and urban watershed health to improve watershed storage capacity, forest health, protection of life and property, stormwater resource management, and greenhouse gas reduction (subsection (a)(9)); protect and restore coastal watersheds, including, but not limited to, bays, marine estuaries, and nearshore ecosystems (subsection

(a)(10)); reduce pollution or contamination of rivers, lakes, streams, or coastal waters, and protect or restore natural system functions that contribute to water supply, water quality, or flood management (subsection (a)(11)); and assist in the recovery of endangered, threatened, or migratory species by improving watershed health, instream flows, fish passage, coastal or inland wetland restoration, or other means (subsection (a)(12)).

As required by Proposition 1, the proposed project provides multiple benefits. By restoring a degraded reach of Redwood Creek, by planting native trees and riparian plants, expanding the urban tree canopy, and removing trash and invasive species, the proposed project will help restore a tidal-terrestrial transition zone and refugia for species like the endangered salt marsh harvest mouse; improve watershed storage capacity, forest health, and stormwater management by expanding the urban forest and replacing invasive palm trees with a mix of native trees and plants; restore coastal watersheds by replacing invasive trees with native trees and plants along a creek corridor that is tidally connected to the San Francisco Bay estuary; reduce pollution in Redwood Creek by removing trash and debris, and promoting the filtration of stormwater runoff through improving soil conditions through the addition of organic sheet mulching; and assist in the recovery of endangered, threatened, or migratory species by improving watershed health and providing refugia for endangered species such as the salt marsh harvest mouse.

The proposed project was selected through the seventh-round competitive grant process under the Conservancy's *Proposition 1 Grant Program Guidelines* adopted in June 2015 (see § 79706(a)), focused on Bay Area Urban Greening. 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 report. \$30,000 in cost share funds for this project proposal come from the City of Redwood City.

The remaining cost share funds are not displayed in the table, as they are contributed by the prospective grantee partner (Grassroots Ecology), and project partners, via in-kind contributions. Grassroots Ecology will be contributing \$17,100 in in-kind services, and project volunteers and partners, such as City Trees and the City of Redwood City, will be contributing an additional \$38,700 in in-kind services.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project is undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resource Code Sections 31160-31165, to address resource goals in the San Francisco Bay Area. Section 31162 of the Public Resources Code authorizes the Conservancy to undertake projects and award grants in the nine-county San Francisco Bay Area, including San Mateo County. All of the proposed project area is within San Mateo County. Under Section 31162(b), the Conservancy may act to protect, restore, and enhance natural habitats, connecting corridors, and watersheds and other open space resources of regional significance. The proposed project will restore a degraded reach of Redwood Creek that flows through downtown Redwood City in an ecologically rich, tidal-terrestrial transition zone that connects to the San Francisco Bay estuary.

The proposed project is appropriate for prioritization under the selection criteria set forth in Section 31163(c) in that it: (1) is consistent with the *San Francisco Bay Subtidal Habitat Goals*

report, the *Baylands Ecosystem Habitat Goals Science Update 2015*, and the *San Francisco Bay Plan* (2008) (“Bay Plan”), as described below; (2) involves the coordination of the jurisdiction with community and nonprofit groups to improve the health of the creek and benefit the region; (3) will be implemented in a timely manner; (4) provides opportunities to coordinate the restoration with the development of adjacent low-income housing and a future trail to be built along the creek by the developers; and (5) includes outside grant funds from other sources of funding or assistance.

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

Consistent with **Goal 7, Objective G** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will implement tree and vegetation plantings that reduce urban heat islands and provide other benefits such as reduced energy use and enhanced stormwater management.

Consistent with **Goal 11, Objective D** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will enhance upland habitat in a tidal-terrestrial transition zone at the upper reach of Redwood Creek, which is tidally connected to the San Francisco Bay estuary.

Consistent with **Goal 11, Objective F** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will enhance a riparian habitat and functions for the benefit of wildlife and water quality, by removing invasive plants and trees and replacing them with natives, as well as removing trash and debris.

Consistent with **Goal 12, Objective B** of the Conservancy’s 2013-2018 Strategic Plan, the proposed project will implement the installation of interpretive signage along Redwood Creek, which will educate the public about the restoration project.

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. The proposed project fits within one of the five key areas that guide the goals of the *California @ 50 Million: The Environmental Goals and Policy Report*, to steward and protect natural landscapes, by restoring and enhancing the upper reach of Redwood Creek, replacing invasive plants and trees with natives, and removing trash and debris from the creek banks.
 - b. The proposed project will help implement a Biodiversity and Habitat goal of the *CA Climate Adaptation Strategy/Safeguarding California: Reducing Climate Risk Plan*,

to “support environmental stewardship across sectors by promoting nature-based solutions for adapting to climate risks,” by planting native trees and plants that will help to mitigate the urban heat island effect that will be exacerbated with climate change impacts. Lastly, the proposed project will help implement an Ocean and Coastal Ecosystems and Resources goal, to “study and support investment in cost-effective green infrastructure to reduce flood risk, storm water runoff, and to maximize associated co-benefits” by planting native trees and plants that will help to facilitate storm water filtration, by also providing co-benefits for wildlife.

- c. The proposed project will help implement the *California Wildlife Action Plan*, specifically goal 2.1 to “maintain and improve connectivity vital for sustaining ecosystems (including those relevant to vegetation, wildlife corridors, and genetic permeability), by restoring the upper reach of Redwood Creek, which serves as a key piece of the tidal-terrestrial transition zone that connects downstream to the San Francisco Bay estuary.
4. **Support of the public:** The proposed project has received broad public support, including support from the City of Redwood City and City Trees.
5. **Location:** The proposed project is located along the upper reach of Redwood Creek, specifically between Veterans Blvd, Walnut St, Bradford St, and Jefferson Avenue, in the City of Redwood City, in San Mateo County.
6. **Need:** Though the grantee does offer matching funds, they are not adequate to complete the project without Conservancy support. Thus, if the proposed project is not funded by the Conservancy, the project will be deferred without funding until another granting source can be identified. Thus, without Conservancy participation in the project, the project would not be able to move forward with implementation at this time.
7. **Greater-than-local interest:** The proposed project site is the uppermost reach of Redwood Creek, which connects directly to the San Francisco Bay estuary after winding through downtown Redwood City. By restoring riparian habitat through removing invasive plants and trees and planting native plants and trees, as well as removing trash and other debris from the creek banks, the proposed project directly enhances adjacent investments in bay wetlands and improves the water quality of the San Francisco Bay estuary, which is shared by all nine counties surrounding the San Francisco Bay and is an important regional, as well as statewide, resource.
8. **Sea level rise vulnerability:** The proposed project, based on a creek, is subject to flooding and would be affected by a sea level rise of 24 inches or higher, according to sea level rise vulnerability maps developed by Sea Change San Mateo County, an effort previously funded by the Conservancy. It is estimated that the area will be routinely flooded sometime between 2050 and 2100. To minimize vulnerability to sea level rise and flooding, project proponents will focus native tree and shrub plantings on upland and top of bank areas. The proposed project site will be restored with native plants which are tolerant of brackish water conditions, and will be able to naturally shift as sea levels rise over time.

Additional Criteria

9. **Urgency:** There is current political will and support for the project. In addition, it is an opportune time to implement the proposed project as there is an affordable housing project, directly adjacent to the site, that is slated to begin soon and which creates a window of opportunity to work with the developer to ensure that the housing project is complementary to habitat restoration.
10. **Resolution of more than one issue:** The proposed project replaces invasive plants and trees with native plants and trees, thus restoring the riparian habitat, but also facilitates improved water quality through stormwater filtration, provides refugia in the upper reach of Redwood Creek, and by removing dense palm trees that currently dominate the site, creates open space for views down to the Creek as well as open space that can be enhanced with public access features in the future.
11. **Leverage:** See the “Project Financing” section above.
12. **Readiness:** Planning work for the proposed project is slated to begin upon Conservancy approval and the project is anticipated to be completed by December 2020. Project proponents are ready to begin work on the project once funding is authorized.
13. **Realization of prior Conservancy goals:** See “Project History” above
14. **Return to Conservancy:** See the “Project Financing” section above.
15. **Cooperation:** The proposed project involves cooperation between a nonprofit organization, Acterra, via its sponsored program Grassroots Ecology, and the City of Redwood City, to accomplish shared goals. The proposed project will also entail cooperation between the Grassroots Ecology, and the urban forestry nonprofit, City Trees, as well as with Conservation Corps, community members for volunteer work days, and the adjacent affordable housing development project.
16. **Vulnerability from climate change impacts other than sea level rise:** There is a potential for drought to affect the project, thus, native plantings will be conducted in the fall and winter months to allow for root establishment during the rainy season, and then plants will be irrigated during the summer over the first 2-3 years using recycled and reclaimed water. Once established, the plantings are expected to be resilient to climate shifts.
17. **Minimization of greenhouse gas emissions:** The proposed project anticipates a net reduction in greenhouse gas emissions given the carbon sequestration benefit that will occur through the installation of native trees and plants. The addition of up to 60 trees to the urban landscape will also reduce the urban heat island effect and the need for cooling, thus reducing peak energy demand. In addition, the restoration and urban forestry activities are primarily people-powered, and though tree removal contractors may utilize power tools, volunteer participants involved in the proposed restoration work will be provided with hand tools and shovels to plant and clear weeds. Vehicle miles traveled will be minimal, since volunteers and contractors will be recruited from the local community.

CONSISTENCY WITH SAN FRANCISCO BAY PLAN:

The proposed project is consistent with the San Francisco Bay Plan's Fish, Other Aquatic Organisms and Wildlife Policy #2, since the proposed project helps to restore and conserve a habitat with native plant species, that will provide refuge to an endangered species.

The proposed project is consistent with the San Francisco Bay Plan's Water Quality Policy #1, since the proposed project restores upland tidal-terrestrial transition zone habitat with native plants and trees, helping to prevent Bay water pollution.

The proposed project is consistent with the San Francisco Bay Plan's Climate Change Policy #3, since the proposed project takes into consideration two feet of sea level rise in project implementation, thus protecting ecosystem services, and designing the project to be resilient to mid-century sea level rise projections.

The proposed project is consistent with the San Francisco Bay Plan's Recreation Finding v. since the proposed project provides interpretation of a wildlife area, through installing signage adjacent to the project area, the creek banks of Redwood Creek in downtown Redwood City.

The proposed project is consistent with the San Francisco Bay Plan's Recreation Policy since it ensures there is interpretation of the creekside habitat, which may eventually have public access.

COMPLIANCE WITH CEQA:

The proposed project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code of Regulations Section 15333 Small Habitat Restoration Projects, which exempts habitat restoration projects that: (a) do not exceed five acres in size, (b) do not create a significant adverse impact on endangered, rare or threatened species or their habitat pursuant to section 15065, (c) are not located where there are hazardous materials that may be disturbed or removed, and (d) 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. The proposed riparian restoration project does not exceed five acres in size and promotes the restoration and enhancement of riparian habitat adjacent to a creek, which will benefit both native plants as well as wildlife along the creek corridor which connects to the San Francisco Bay estuary. The proposed project meets each of the criteria of Section 15333. Accordingly, the proposed project is exempt from CEQA.

Upon Conservancy approval, staff will file a Notice of Exemption.