COASTAL CONSERVANCY

Staff Recommendation
September 23, 2021

Cottonwood Creek Riparian Enhancement Project

Project No. 21-048-01
Project Manager: Carol Martinez

RECOMMENDED ACTION: Authorization to disburse up to $200,000 to San Diego Botanic Garden (SDBG) to enhance and restore 4.6 acres of riparian upland habitat at Ocean Knoll Canyon in the City of Encinitas, San Diego County.

LOCATION: San Diego Botanic Garden, City of Encinitas, San Diego County

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EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Project Site Map & Photos

Exhibit 3: Project Letters

Exhibit 4: Mitigated Negative Declaration

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed two hundred thousand dollars ($200,000) to San Diego Botanic Garden ("the grantee") to enhance and restore approximately 4.6 acres of riparian upland habitat at Ocean Knoll Canyon in the City of Encinitas, San Diego County.

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.

3. A plan for acknowledgement of Conservancy funding and Proposition 1 as the source of that funding.
4. Evidence that all permits and approvals required to implement the project have been obtained.
5. Evidence that the grantee has entered into agreements sufficient to enable the grantee to implement, operate, and maintain the project.

Findings:

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

1. The proposed authorization is consistent with Chapter 6 of Division 21 of the Public Resources Code, regarding Coastal Resource Enhancement.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The San Diego Botanic Garden is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.
4. The Conservancy has independently reviewed and considered the Mitigated Negative Declaration for the Carlsbad Hydrologic Unit Invasive Non-native Plant Control and Revegetation Program adopted by the County of San Diego Department of Parks and Recreation on August 26, 2010, pursuant to the California Environmental Quality Act ("CEQA") and attached to the accompanying staff recommendation as Exhibit 4. The Conservancy finds that the proposed project as designed and mitigated avoids, reduces, or mitigates the potentially significant environmental effects to a less-than-significant level, and that there is no substantial evidence based on the record as a whole that the project may have a significant effect on the environment, as defined in 14 Cal. Code Regulations Section 15382.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends the Conservancy authorize up to $200,000 to the San Diego Botanic Garden ("SDBG") to enhance and restore approximately 4.6 acres of riparian upland habitat at Ocean Knoll Canyon in the City of Encinitas, San Diego County (Exhibit 1). The project will have multiple benefits including restoring the natural riparian habitat conditions of the canyon, improving water quality, and improving the use of the restored area for educational opportunities.

Ocean Knoll Canyon is a small, urbanized coastal watershed and is impacted by urban run-off and invasion by non-native plant species. Currently, the canyon is overgrown with invasive plant species, which not only impacts biodiversity and water quality, but also limits the ability to use the habitat as an educational outdoor classroom for the adjacent elementary school.

Run-off from the private properties that surround the canyon significantly impacts water quality in the watershed. Many of the invasive species currently dominating the riparian habitat are high-water-intake species such as giant reed *(Arundo)* and gum trees (Eucalyptus) (Exhibit 2). *Arundo* is known to cause particularly severe impacts to riverine processes and riparian habitat, and it is a serious concern for fire danger because of its flammability. Additionally, the water infiltration capacity of the soil has likely been reduced by other invasives such as ice plant and pampas grass, which reduces streamflow in the dry season.

Although the habitat in Ocean Knoll Canyon is currently marginal, it has significant value for education, and provides refuge for native plants and animals. Through habitat enhancement and restoration, this project will clear the area of invasive plants that currently dominate the canyon. The project will integrate multiple invasive removal methods such as hand-pulling, tarping, and limited use of herbicide in compliance with all EPA regulations. An Integrated Pest Management Program is being adopted to minimize the use of chemical eradication methods. Chemical eradication methods will only be used when necessary and will occur within the timeframes specified in California Department of Pesticide Regulation 16-004 Pesticide Use Near School sites. In addition, SDBG is proposing to hold two to three community outreach events to educate the surrounding community members about the project, the herbicide being used, and the methods of herbicide application at the project site. Furthermore, invasive plants will be replaced with native riparian vegetation meant to improve the condition and functionality of the surrounding natural environment. A restored riparian habitat at Ocean Knoll Canyon will improve habitat for native and special status species, such as the coastal California gnatcatcher, a small non-migratory bird, and the Del Mar Manzanita, a rare native shrub that grows in Southern California.

The project involves invasive species removal and trash removal, native plant installation, and installation of informative signage. The project objectives are to: (1) remove up to seven western coastal wattle trees, (2) remove up to 14 gum trees, (3) remove one Brazilian pepper tree, and (4) remove approximately 4.5 acres of additional invasive plant species such as *Arundo* and ice plant. Following removal activities, the proposed project will plant up to 2,000 1-gallon sized containers of native wetland plant species such as Coastal sage scrub. Performance standards for newly installed native plants involve tracking planting success, where less than 85% survival rate for installed plants will trigger supplemental planting or irrigation. The project also includes the collection of seeds to create a seed bank at SDBG for at least three native plants. SDBG plans on conducting experimental studies on seeds collected to measure their resiliency under various climate conditions and other externalities. Plants that show the highest resiliency to climate change will be re-integrated back into Ocean Knoll Canyon to promote growth of adaptable native species. The project will include baseline and post-project monitoring using the California Rapid Assessment Method (“CRAM”), additional biological monitoring, and cultural monitoring during plant installation. Lastly, the project includes placing interpretive signs around the canyon. Eventually, classroom demonstrations will be encouraged in the restored area; the Encinitas Union School District (“EUSD”) intends to make the Ocean Knoll Canyon site available to all its students and teachers to be used as an “outdoor laboratory” where students can learn about ecosystems, plants, and animal species, although such use is beyond the scope of the proposed project.

Since the channel that runs through the Ocean Knoll site ultimately drains into the Ocean at Moonlight Beach, a very heavily used beach and tourist destination, one goal of this project is to create a healthy urban riparian corridor from the top of this small watershed to the bottom. As part of a separate but related project, the City of Encinitas will fund restoration activities at Cottonwood Creek Park, located at the bottom of the watershed near Moonlight Beach. Collectively these two projects will promote connectivity and habitat health throughout the 2,250 acres of Cottonwood Creek watershed.

The proposed project includes a post-implementation monitoring plan which is intended to ensure compliance with agency permits, measure the performance of the project, and inform annual maintenance needs. The proposed monitoring program will select reference sites at the enhanced canyon to determine plant community composition and density. CRAM surveys will be completed prior to and following project implementation. The SDBG and their volunteers will maintain the project site by continuing to remove invasive species that are identified during their monitoring.

Site Description:

The project is located in the City of Encinitas in north San Diego County. Ocean Knoll Canyon is an 8.8-acre urbanized riparian canyon that features a small perennial stream embedded within the suburban neighborhood of Encinitas. The Canyon is situated northeast of Ocean Knoll Elementary school and is owned by the Encinitas Union School District. The canyon serves as an important historic natural drainage for Old Encinitas in the City of Encinitas and is part of the Cottonwood Creek watershed within the greater San Marcos Hydrologic Area. The Cottonwood Creek watershed channel flows through Ocean Knoll Canyon and eventually drains into the ocean at Moonlight Beach approximately 2.5 miles downstream. Cottonwood Creek is recognized on the 2014-2016 California 303(d) List of Impaired Waters in San Diego County. Habitat within this canyon is a degraded patchwork of non-native plants and shrubs, giant reed, and Eucalyptus woodland mixed with remnants of disturbed Diegan coastal sage scrub.

Grant Applicant Qualifications:

Quail Botanical Gardens Foundation, Inc. dba San Diego Botanic Garden is a California nonprofit corporation. SDBG operates the San Diego Botanic Garden, formerly known as Quail Botanical Gardens, located in Encinitas, California. The San Diego Botanic Garden operates with an annual budget of approximately 10 million dollars and has successfully managed multiple public and private grants of up to $1 million dollars. The mission of San Diego Botanic Garden is to inspire people of all ages to connect with plants and nature.

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 below.

2. **Consistency with purposes of the funding source:** See the "Project Financing" section below.
3. **Promotion and implementation of state plans and policies:** The proposed project is consistent with several state plans and policies, as follows:

   Safeguarding California Plan: This project incorporates practices to safeguard water resources according to the State Plan's action to "Protect and Restore Water Resources for Important Ecosystems." The project will replace invasive plants with native riparian vegetation meant to improve the condition and functionality of the surrounding natural environment which contains multiple special status species.

   California @ 50 Million: The Environmental Goals and Policy Report. The project supports the State's Plan to "Restore Biodiversity, Habitat, and Watersheds." The project will restore and enhance the natural riparian habitat thereby providing essential habitat for native plant and animal species.

   California Water Action Plan. The project supports the goals of the following actions: "Protect and restore degraded stream and meadow ecosystems to assist in natural water management and improved habitat," encouraging State focus on projects with multiple benefits, and managing headwaters for multiple benefits. This project will restore an urbanized coastal watershed impacted by urban run-off and invasion by non-native plant species.
4. **Support of the public:** The proposed project is supported by several partner and resource agencies and elected officials including the City of Encinitas Mayor, Catherine Blakespear, the City of Encinitas Environmental Commission, and the Encinitas Union School District (see Exhibit 3).
5. **Location:** The proposed project is within the coastal zone in the City of Encinitas, San Diego County.
6. **Need:** Without Conservancy participation and funding, project objectives cannot be implemented.
7. **Greater-than-local interest:** Developing public access and habitat restoration design plans not only benefits the safety and ecological health of resident communities adjacent to the sites specific to this project but improves water retention and filtration functions in watersheds' canyon areas that have been severely impaired due to ecological degradation which is a greater-than-local interest. The SDBG is visited by thousands of people from the region and around the world, who will also be able to enjoy the enhanced habitat in the project area.
8. **Sea level rise vulnerability:** The proposed Project is high in the watershed and will not be vulnerable to future sea level rise.

Additional Criteria

9. **Resolution of more than one issue**: The proposed project addresses the need for integrative education, creates habitat and refuge for native plants and animals, and promotes urban greening and ecology.
10. **Leverage**: See the "Project Financing" section below.
11. **Readiness**: The grantee and project partners are ready to begin work as soon as funding is secured.
12. **Realization of prior Conservancy goals**: In 2002, the Conservancy approved $136,250.00 to recreate approximately 2.4 acres of riparian habitat along one-quarter mile of stream corridor on Cottonwood and Moonlight Creeks, in northern San Diego County. The City of Encinitas implemented the creek restoration as part of a larger effort to develop the eight-acre Cottonwood Creek Park. The project carried out three main goals: 1) restore and enhance riparian habitat along the two creeks; 2) improve water quality; and 3) provide educational opportunities for park visitors.
13. **Cooperation**: The proposed project leverages the resources and knowledge of the City of Encinitas, Natural Resources Conservation Service, San Diego Botanic Garden and the Encinitas Union School District to implement a project with multiple benefits that will highlight the potential to integrate the best available science, community involvement and education in California.
14. **Minimization of greenhouse gas emissions:** The proposed project will implement the use of chainsaws to cut down large *Arundo* plants and Eucalyptus trees. The project includes the use of utility quads with soft tire tread to remove the *Arundo* biomass after cutting. No machinery will be used to dig into or disturb the soil.

PROJECT FINANCING

Coastal Conservancy	**$200,000**
Project Total	**$200,000**

The source of Conservancy funds for this project is the fiscal year 19/20 appropriation to the Conservancy from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1, Water Code § 79700 et seq.). Funds appropriated to the Conservancy derive from Chapter 6 (commencing with § 79730) and may be used "for multi-benefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state." (Water Code § 79731.). This project addresses several of the specific purposes of Chapter 6, listed in Section 79732, of which the following pertain to this project:

Pursuant to Section 79732(a)(2), the project implements watershed adaptation in order to reduce the impacts of climate change on communities and ecosystems by removing invasive high-intake water species and planting native species that improve carbon sequestration.

Pursuant to Section 79732(a)(9), the project protects and restores rural and urban watershed health to improve watershed storage capacity, forest health, protection of life and property, storm water resource management, and greenhouse gas reduction by removing invasive

species thereby improving the watershed capacity and drainage, as well as increasing native habitat for wildlife species.

Pursuant to Section 79732(a)(10), the project protects and restores coastal watersheds via restoration methods to enhance the natural riparian habitat, thereby providing essential habitat for native plant and animal species.

Pursuant to Section 79732(a)(11), the project reduces pollution or contamination of rivers, lakes, streams, or coastal waters and protects or restores natural system functions that contribute to water supply, water quality, or flood management by removing invasive species that disrupt drainage and water capacity of the watershed and conducting an on-site cleanup by removing trash and debris.

The proposed project was selected through a competitive grant process under the Conservancy's Proposition 1 Grant Program Guidelines (See § 79706). The proposed project meets each of the evaluation criteria in the Prop 1 Guidelines as described in further detail in this Project Financing section and in the "Project Summary" and "Consistency with Conservancy's Project Selection Criteria & Guidelines" sections of this staff recommendation.

Unless specifically labelled "Required Match" the other sources of funding listed above are provided as estimates.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project is undertaken pursuant to Chapter 6 of Division 21 of the Public Resources Code, as follows:

Pursuant to Section 31251, the Conservancy may award grants to local public agencies and nonprofit organizations for the purpose of enhancement of coastal resources which, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic values. Consistent with this section, the project will provide a grant to a non-profit to enhance riparian habitat that have been overrun with invasive plants and impacted by urban run-off. Thus, this grant will be used for corrective measures that will enhance the natural character of the area, consistent with Section 31251.

Pursuant to Section 31252, all areas proposed for resource enhancement by a state agency, local public agency, or nonprofit organization shall be identified in a certified local coastal plan or program as requiring public action to resolve existing or potential resource protection problems. Policy 4.24 of the City of Encinitas' LCP Land Use Policies states that the City shall pursue opportunities to actively participate in watershed level planning and management efforts directed towards reducing storm water and urban runoff impacts to water quality and related resources, including restoration efforts and regional mitigation, monitoring, and public education programs, and thus the proposed project is consistent with Section 31252.

Pursuant to Section 31253, the Conservancy may provide up to the total cost of any coastal resource enhancement project, including the state or local share of federally supported project. The proposed authorization is for approximately 65% of the total project cost and is therefore consistent with Section 31253.

CONSISTENCY WITH CONSERVANCY'S 2018-2022 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):
Consistent with **Goal 4, Objective B** of the Conservancy's 2018-2022 Strategic Plan, the proposed project supports the installation of interpretive signs that will be placed around the canyon, and classroom demonstrations will be encouraged in the restored area.

Consistent with **Goal 6, Objective D** of the Conservancy's 2018-2022 Strategic Plan, the proposed project preserves and enhances coastal watersheds and floodplains by way of restoration methods to enhance the natural riparian habitat, thereby providing essential habitat for native plant and animal species.

CEQA COMPLIANCE:

The County of San Diego Department of Parks and Recreation ("County") is the lead agency for the purposes of the California Environmental Quality Act (CEQA). The County prepared and adopted the Mitigated Negative Declaration for the Carlsbad Hydrologic Unit Invasive Non-native Plant Control and Revegetation Program (MND)(Exhibit 4) on August 26, 2010. The restoration activities of the proposed project are within the scope of the MND and all project activities will be carried out in accordance with the mitigation measures established therein. The MND indicates that there is a potential for significant environmental effects from the project in the areas of biological resources, geology and soils, and hydrology/water quality.

However, proposed mitigation measures will avoid or reduce the possible effects to a less than significant level. The mitigation measures are summarized below and in the Mitigation Monitoring and Reporting Program (Exhibit 4).

Biological Resources

Project activities will avoid and minimize potential impacts to sensitive habitats, and plant and wildlife species to the maximum extent practicable.

To avoid and minimize biological resource impacts prior to, and during, treatment of invasive plants, a number of avoidance and minimization measures will be implemented, including the following:

Herbicide application measures: Only herbicides currently approved by the U.S Environmental Protection Agency (EPA) for use in wetlands will be used. No herbicide will be applied to native vegetation. This includes any surfactants that are used during application. Herbicides will only be applied by licensed applicators using backpack sprayers. To reduce the chance and impact of spillage, work crews will only mix herbicide, load mixed chemicals into ATVs (for refilling backpack sprayers), and refuel ATVs in staging areas. Staging areas are disturbed sites such as roads, permanent trails, shoulders, graded areas, or sites with compacted soil that support no vegetation or weedy vegetation.

Avoidance measures for bird species impacts: Work will generally be conducted between September 15th and March 15th, but work may be initiated after August 15th if avian surveys determine that nesting has been completed for the season. Whenever invasives removal is

conducted (a) in San Elijo Lagoon/Escondido Creek; or (b) in upland areas during the nesting/breeding season, a qualified biologist will conduct three surveys (one week before treatment, one day before treatment, and the morning of treatment) for light-footed clapper rails (in San Elijo Lagoon/Escondido Creek), gnatcatchers (in upland areas), and other bird species (all locations) in treatment areas. Any bird nests that are identified during these surveys will be flagged, avoided during project-related work, and revisited when nests are no longer active. If any light-footed clapper rail, gnatcatchers and/or their nests, or other nesting birds, are detected in an area to be treated, the biologist will stop all treatment activities within 50 feet of the detected species and/or nests until avoidance measures developed after consultation with the US Fish and Wildlife Service (USFWS) are implemented.

Native vegetation avoidance measures: Prior to treatment of target non-native plants, native vegetation will be demarcated through separation or buffer creation to minimize the chance of non-target herbicide application.

Geology and Soils: The project includes the use of utility quads with soft tire tread to remove the Arundo biomass after cutting. No machinery will be used to dig into or disturb the soil. The project will not result in substantial soil erosion or the loss of topsoil for the following reasons:

- The project will not result in unprotected erodible soils, will not alter existing drainage patterns, and will not develop steep slopes.
- The project will include Best Management Practices (BMPs) to ensure sediment does not erode from the proposed project site.
- The project does not involve grading.

Additionally, the project will not alter the land in any way as to create unstable conditions as the project does not propose landform alteration. The project is for habitat restoration. The project does not propose any septic tanks or alternative wastewater disposal systems since no wastewater will be generated. No grading or soil movement will occur to establish staging areas, access points and access routes.

Water Quality: The project proposes habitat restoration (invasive, non-native plant control and revegetation of native species). The project does not involve grading or alteration of landform and will not affect water quality. The project will not use any groundwater for any purpose, including irrigation, domestic or commercial demands. In addition, the project does not involve operations that would interfere substantially with groundwater recharge including, but not limited to the following: the project does not involve regional diversion of water to another groundwater basin; or diversion or channelization of a stream course or waterway with impervious layers, such as concrete lining or culverts, for substantial distances (e.g., ¼ mile). Therefore, the project will not impact groundwater resources.

Cottonwood Creek (San Marcos Creek Watershed) has been identified as impaired body of water on the Clean Water Act 303(d) list for elevated levels of DDT, phosphorous, and sediment toxicity. The project will not increase these pollution loads and may well reduce the pollution as the program discourages the use of riparian habitat as encampments (where trash and sewage are directly discharged into the water). Moreover, the removal of high-water-intake species such as invasive *Arundo* could improve water flow and water quality.

Restoration activities will not impact channel areas with water flow or result in the discharge of any contaminants. Aquatic approved herbicides will be used for treatments of non-native plants. These herbicides are approved for use by open water by the EPA. No direct applications of herbicide to water will occur.

Other biological avoidance and minimization measures: No more than three crews will be active on the watershed at one time and only one crew will operate at a given site at a time. ATVs will not drive in channel areas and will operate only in open areas, woody-vegetation will no be cleared or drive upon. Crews will avoid wading through streams whenever possible and cut non-native plants will be stacked and dried away from streams or wet areas to prevent re-infestation.

Cultural Resources

The following measures will be implemented to protect cultural resources: A cultural monitoring plan will be prepared and implemented detailing practices that no cultural or archeological resources are harmed during plant removal and installation. Any invasive non-native plant control or restoration work using mechanical equipment near or within registered sites will be reviewed by a certified archaeologist, and if deemed necessary, a cultural and/or Native American monitor will be on site during work to assure that no impacts to historic or cultural resources occur.

Staff has independently evaluated the MND and concurs that there is no substantial evidence that the proposed project will have a significant effect on the environment. Staff therefore recommends that the Conservancy find that the project as mitigated avoids, reduces or mitigates the possible significant environmental effects to a level of less-than-significant and that there is no substantial evidence that the project will have a significant effect on the environment as that term is defined by 14 Cal. Code Regs. §15382.