

COASTAL CONSERVANCY

Staff Recommendation
June 20, 2013

**SAN DIEGO RIVER INVASIVE PLANT ERADICATION PROJECT:
UPPER WATERSHED**

Project No. 13-021-01
Project Manager: Megan Cooper

RECOMMENDED ACTION: Authorization to disburse up to \$1,500,000 to the San Diego River Conservancy to complete invasive plant eradication on 50 acres in the upper watershed of the San Diego River, San Diego County.

LOCATION: San Diego River Watershed, near the unincorporated area of Lakeside, County of San Diego

PROGRAM CATEGORY: Integrated Coastal and Marine Resources Protection

EXHIBITS

- Exhibit 1: [Project Location and Site Maps](#)
 - Exhibit 2: [Project Photos](#)
 - Exhibit 3: [Initial Study/Mitigated Negative Declaration \(9/3/2009\)](#)
 - Exhibit 4: [Mitigation Monitoring and Reporting Program](#)
 - Exhibit 5: [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 one million five hundred thousand dollars (\$1,500,000) to the San Diego River Conservancy to complete non-native, invasive plant eradication on approximately 50 acres in the upper watershed of the San Diego River, subject to the following conditions:

1. Prior to the disbursement of any Conservancy funds, the San Diego River Conservancy shall submit for review and approval of the Executive Officer of the Conservancy a work program, budget, schedule, and the names of any contractors to be employed in carrying out the work.
2. The grantee shall provide evidence that all necessary permits and approvals have been obtained.

3. Conservancy funding shall be acknowledged by erecting and maintaining at the project site or other appropriate location in the watershed a sign or signs, the design, placement and duration of which shall be approved by the Executive Officer.
4. The San Diego River Conservancy shall implement or cause to be implemented the mitigation and reporting measures identified in the Mitigated Negative Declaration (MND) for the San Diego River Watershed Invasive Non-native Plant Control and Habitat Restoration Program, approved on September 3, 2009 and the accompanying Mitigation Monitoring and Reporting Program.

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 project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
2. The proposed authorization is consistent with Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resources protection.
3. The proposed project is consistent with applicable local watershed management plans and water quality control plans.
4. The Conservancy has independently reviewed the Mitigated Negative Declaration approved by the San Diego River Conservancy on September 3, 2009 (Exhibit 3) and the Mitigation Monitoring and Reporting Program (Exhibit 4) with respect to the eradication of invasive species in the upper San Diego River Watershed. The Conservancy finds that the project as conditioned avoids, reduces, or mitigates the possible significant environmental effects to a level of insignificance, and there is no substantial evidence that the project will have a significant effect on the environment, as defined in 14 California Code of Regulations Section 15382.

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize the disbursement of up to one million five hundred thousand dollars (\$1,500,000) to the San Diego River Conservancy (“SDRC”) to complete non-native, invasive plant eradication on 50 acres in the upper watershed of the San Diego River (“the River”) (Exhibit 1).

Background:

The SDRC initiated a watershed-based invasives eradication program focused on *Arundo donax* (“*Arundo*”) in 2007. Through this program, the SDRC has mapped all of the *Arundo* and other target invasive species in the watershed (Exhibit 1), has received watershed-wide permits, and has completed a watershed-wide Mitigated Negative Declaration under the California Environmental Quality Act that covers the whole program. SDRC has successfully completed two *Arundo* eradication projects within the watershed, restoring 58 acres of the 354 acres of

invasive plants that were initially mapped. The watershed-wide program is focused on eradicating *Arundo* from the entire watershed using proven methods of treatment, retreatment, and revegetation.

Arundo is the primary focus of the watershed-based invasives program as this species is causing particularly severe impacts to both abiotic and biotic riverine processes and riparian habitat. As recently documented in the *Arundo* Impact Study (www.cal-ipc.org), *Arundo* has pronounced effects on multiple factors that shape riverine processes. These modifications include changes to sediment transport, hydromodification, and an increase in the incidence of fire in riparian ecosystems. These impacts have severe ecological consequences on the River, degrading the habitat for native flora and fauna, several of which are State- and/or federally-listed species. In addition, *Arundo* physically displaces native vegetation and converts naturally open spaces to densely vegetated areas. In addition to all of these ecological considerations, *Arundo* poses a significant threat to infrastructure and water resources, exacerbating flooding by contributing to overbank flows and depleting belowground aquifers through unusually high water usage.

Maps of completed work areas with reports of acres treated and site conditions, a GIS database of areas treated, and a Right of Entry database are the written deliverables for the project. The Project will take approximately four years to complete.

Project Description:

Arundo Eradication and Re-vegetation. The Project will complete approximately 50 acres of invasive, non-native plant eradication and re-vegetation in the upper watershed of the River. Predominantly *Arundo* will be treated, but Mexican fan palm, tamarisk and Brazilian pepper tree will also be targeted for removal. By addressing these 50 acres, the SDRC's program will have initiated eradication on all *Arundo* stands east of Mission Trails Regional Park and will help protect the SDRC's previous *Arundo* projects that were completed in the middle watershed. By the end of the project, the grantee expects that treated sites will have less than 1% cover of *Arundo* and a native woody plant density of >100 plant per acre (Exhibit 2).

Arundo treatment will involve application of aquatic herbicides, approved for work in these habitats, plant removal using hand cutting and some mowers in areas with sufficient access. Once *Arundo* has been under treatment for at least a year and resprouting is scattered, re-vegetation may occur using cuttings or container stock that has been grown from material collected in the watershed.

Permitting compliance and Access. SDRC will maintain existing regulatory approval permits (Army Corps of Engineers, U.S. Fish and Wildlife Service (FWS), California Department of Fish and Wildlife (CDFW)). This task includes compliance with all permit conditions, biological monitoring during program implementation, annual reporting, and communication with regulators to assure that project follows procedures outlined in the both the regulatory permits and the Mitigated Negative Declaration (Exhibit 3).

The Project will carry out activities on 282 properties that are publicly and privately owned. SDRC will maintain a database of the properties within the project area and the Rights of Entry (ROE) with each of these property owners. Parcel and ROE information are maintained in a GIS database that is used to generate maps of parcels where permission has been obtained so that the

contractors can implement fieldwork and landowners can be notified of the work to be performed.

Site Description:

The San Diego River runs 52 miles from its headwaters in the Cleveland National Forest in east San Diego County, through Mission Valley and the first settlement in California at Old Town, before it empties into the Pacific Ocean at Ocean Beach. With a land area of approximately 440 square miles, the San Diego River Watershed is the second largest in San Diego County. It is also the most heavily populated of the County’s watersheds.

The 50 acres of treatment areas for this Project are riparian habitat along the San Diego River and its tributaries in the upper reach of the watershed, near the unincorporated area of Lakeside (Exhibit 1, Figure 2). The project area is expansive, covering over 15 miles of river and creek length. This includes a wide range of riparian habitat assemblages, including willow and cottonwood woodland, willow scrub, and mulefat scrub, as well as open channel areas. Many of these areas are dominated by infestations of *Arundo* and other invasive non-native plant species (Exhibit 2). These riparian areas are of significant value as identified under MHCP and MSCP plans for the region.

Project History:

This program is modeled on successfully run programs in other areas of San Diego County that the Conservancy funded, including the San Luis Rey watershed and the Carlsbad Hydrologic Unit. The SDRC watershed-wide program is a Tier 1 project in the Southern California Wetlands Recovery project’s Work Plan, reflecting both the need for the project and the SDRC’s capacity to implement the project. In addition, several projects that are encompassed in the San Diego River watershed-based invasives eradication program were listed as priorities in the 2013 Annual Work Plans for SDRC and the San Diego River Coalition, an organization comprising more than 70 community based conservation groups and stakeholders.

SANDAG’s recently completed plan ‘Management Priorities for Invasive Non-Native Plants’ specifically highlights continued support for watershed-based *Arundo* eradication programs. This plan states that *Arundo* is the most detrimental invasive non-native plant in the County, indicating its severe abiotic and biotic impacts. Also, landscape-level coordinated management of *Arundo* is occurring, and the San Diego River watershed is specifically identified as meaningful, coordinated work occurring under the leadership of SDRC.

PROJECT FINANCING

<u>Coastal Conservancy</u>	<u>\$1,500,000</u>
Total Project Costs	\$1,500,000

The anticipated source of funds for this project is the FY 2010/2011 appropriation to the Conservancy from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (“Proposition 84”). These funds may be used to protect San Diego Bay and adjacent watersheds, as specified in Section 75060(f). This project is located in the San Diego River Watershed. In addition, Proposition 84 funds may be used for the

purposes consistent with Division 21 of the Public Resources Code (Public Resources Code § 75060 (b)). As discussed below, the project is consistent with Chapter 5.5 of Division 21.

Consistent with the relevant Budget Act requirements for these funds, this project has been authorized by the SDRC for funding on May 2, 2013 (Exhibit 5). The proposed project is consistent with the SDRC's enabling legislation, Division 22.9 of the Public Resources Code, Sections 32633 (a), which authorizes the SDRC to provide wetland protection, restoration, protection, maintenance and improvements of the quality of the waters in the San Diego River and its watershed, and natural floodwater conveyance.

The SDRC has spent or encumbered \$2,100,000 to date on the watershed-wide invasive eradication program. Of this \$2,100,000, approximately \$350,000 from SANDAG and the Resources Agency (River Parkways) will be spent to complete retreatment in areas where major biomass removal and revegetation has already been completed.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The proposed project would be undertaken pursuant to Chapter 5.5, Integrated Coastal and Marine Resources Protection (§31220), of the Conservancy's enabling legislation, Division 21 of the Public Resources Code. Section 31220(a) authorizes the Conservancy to award grants for coastal watershed projects that meet one or more criteria of Section 31220(b).

Consistent with §31220(b), the Program will help achieve the following subsection objectives: 2) protect and restore fish and wildlife habitat within coastal watersheds; 3) reduce threats to coastal wildlife; 4) reduce sedimentation of coastal watersheds and contribute to the reestablishment of natural erosion and sediment cycles; and 6) restore riparian areas, floodplains, and other sensitive watershed lands.

Consistent with §31220(a), staff has consulted with the State Water Resources Control Board and the San Diego Regional Water Quality Control Board in the development of the project to ensure consistency with the San Diego Basin Plan (Exhibit 5). As Section 31220(c) requires, the Project will include monitoring and evaluation of treated areas to ascertain success. In addition, the Project is consistent with the San Diego County Integrated Regional Water Management Plan (2007) and the San Diego River Watershed Management Plan (2005). This is discussed in detail below under "Consistency with Local Watershed Management Plan/State Water Quality Control Plan."

CONSISTENCY WITH CONSERVANCY'S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 4, Objective C** of the Conservancy's 2013-2018 Strategic Plan the project will restore fish and wildlife corridors between core habitat areas along the coast and from coastal to inland habitat areas.

Consistent with **Goal 5, Objective D** of the Conservancy's 2013-2018 Strategic Plan, the proposed project would fund the implementation of a project that will enhance coastal watersheds and floodplains.

**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 November 10, 2011, 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. **Support of the public:** SDRC's board members represent a wide range of public agencies, non-profit organizations, elected officials, and citizens. SDRC has enjoyed strong public support and partnership allowing it to implement a large number of invasive plant eradication and habitat restoration projects. Public agencies that have partnered with SDRC on invasive eradication include: County of San Diego, City of San Diego, City of Santee, CA Department of Fish and Wildlife, and the San Diego County Water Authority. Partnerships with other entities include Lakeside River Park Conservancy, Backcountry Land Trust, San Diego Canyonlands, and the San Diego River Foundation. Numerous private individuals and groups have also supported the watershed-wide program as reflected in their permission for work on their property.
4. **Location:** The project is not located in the coastal zone but will benefit coastal resources by eradicating invasive plant species in the upper watershed to reduce the risks of infestation in the lower watershed and restoring sediment transport and water quality in the River.
5. **Need:** The Conservancy's funds that have been designated for use on SDRC projects are the only funds available to implement the Project. Without this funding the project will not proceed, putting other projects at risk that have already been implemented downstream.
6. **Greater-than-local interest:** Eradicating *Arundo* in the San Diego River watershed will restore some of the riverine habitat functions that have been lost due to degradation of these habitats throughout southern California. The MSCP specifically identifies the value of the San Diego River as a corridor for wildlife, linking conserved areas in the watershed. In addition, the eradication of *Arundo* the State as a whole as it decreases the commitment of resources to suppress fires, import water, and repair infrastructure, all of which are increased when dense *Arundo* stands are present. And finally, the Project will also help restore habitat for State and Federal rare and endangered species.
7. **Sea level rise vulnerability:** The Project area is not located close to a shoreline and is not vulnerable to sea level rise. It is located significantly inland and above sea level at all points.

Additional Criteria

10. **Leverage:** See the "Project Financing" section above.

13. **Readiness:** The SDRC is prepared to start the Project immediately after receiving funding, within the appropriate bird nesting seasons.
14. **Realization of prior Conservancy goals:** “See “Project History” above.
16. **Cooperation:** The Project is a result of cooperation among the SDRC and local land owners. Without receiving the rights of entry to the private parcels in the Project area, it could not proceed.
18. **Vulnerability from climate change impacts other than sea level rise:** The Project will not be vulnerable to climate change impacts, but will likely improve riparian ecosystem functioning under projected climate change scenarios. Two basic trends are likely to occur: more extreme rainfall events and associated flooding (which is made worse in portions of the watershed by the high percentage of impervious surfaces) and dry periods that exacerbate wildland fire risk. Eradicating *Arundo* in the watershed will reduce the magnitude of both of these impacts. Removing *Arundo* will also conserve water resources by reducing transpiration, keeping more water in the riverine system and groundwater aquifers.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

This Project is located outside of the coastal zone but it will have a positive impact on coastal resources by protecting the lower watershed from further infestation by invasive species.

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

The proposed Program will facilitate several recommendations from the San Diego River Watershed Management Plan (2005), which states “the two most highly invasive wetland plants that occur within the watershed are giant reed (*Arundo donax*) and tamarisk (*Tamarix* spp.). These species in particular have an adverse affect on the hydrology and geomorphology habitat diversity and ecological integrity along the San Diego River.” In response, the Plan recommends the following:

NSC2 Clear out invasive non-native vegetation and actively maintain “invasive plant free areas.”

NSC4 Complete a watershed-wide inventory of non-native species infestations and prioritize response actions.

NSC5 Develop a systematic response plan that integrates surveillance, control and eradication, introduction controls, public and private outreach, and funding programs, and that defines effective management areas and milestones to measure success.

NSC6 In areas where potentially impacted endangered species occur, initiate a non-native species removal program that includes the ongoing maintenance of reduced non-native species abundance.

NSC10 Initiate land management programs that promote the restoration of natural ecological and hydrological processes because healthy ecosystems exert resistance to future invasions of some non-native species.

Because the project will facilitate the eradication of non-native plants and the restoration of wildlife habitat in this coastal watershed, it is also consistent with the Water Quality Control Plan for the San Diego Basin (adopted by the San Diego Regional Water Quality Control Board in 1994 and reviewed every three years). The project will further the following beneficial use objectives:

- Warm freshwater habitat
- Cold freshwater habitat
- Wildlife habitat

Thus the project is consistent with, and furthers the objectives of both the Watershed Management Plan and the Water Quality Control Plan for the San Diego River watershed.

COMPLIANCE WITH CEQA:

The SDRC prepared a Mitigated Negative Declaration (MND) and Initial Study/Environmental Assessment (Exhibit 3) and a Mitigation Monitoring and Reporting Program (MMRP) (Exhibit 4) for the San Diego River Watershed Invasive Non-native Plant Control and Habitat Restoration Program (the “Program”). The Conservancy would be contributing funds for a small portion of this Program for eradication of 50 acres of invasive plants, as described above.

The MND describes and analyzes the potential environmental effects of project implementation and the measures taken to mitigate those potential effects. The Project’s primary goal is to enhance ecological function of riparian areas and of the River in general. The result of this Project will be habitat improvement for the numerous Federal and State listed species in the San Diego River Watershed. According to consultation with the wildlife agencies (USFWS and CDFW) and based on the analysis in the MND, the avoidance and minimization measures incorporated into the Project will protect local listed species. Thus, impacts to listed species are less than significant as long as conditions outlined in the MND and the regulatory permits are followed.

The MND and MMRP outline specific impact minimization and avoidance measures to protect natural resources such as sensitive species, migratory birds, other wildlife and native plants. The Project will utilize avoidance measures and methods that have been developed with USFWS and CDFW over the past 10 years and successfully used on several other large watershed eradication programs. The main method is avoidance, which means not being in habitat areas during active breeding of wildlife. The following avoidance and minimization measures are in place to assure that there will be less than significant impacts to natural resources:

- Non-native plant control/biomass reduction methods will be used that minimize impacts to non-target native vegetation. These measures include limiting the number of people working at each site, using only herbicides that are approved for work in these sensitive areas, using appropriate methods for applying herbicides, designating areas of avoidance, using appropriate equipment and vehicles only in approved areas (e.g. outside stream channel), and use of appropriate BMPs.
- A biologist will oversee work activities to assure that conditions of the MND and regulatory permits are being followed.

- No restoration activities with heavy equipment shall occur during the designated breeding season for migratory bird species March 15th to September 15th
- If any work using heavy equipment is proposed outside the bird nesting season, avian surveys must be completed to demonstrate that nesting has been completed on site.
- Revegetation activities can occur between December 15th and March 15th using appropriate methods, crew sizes, avoiding sensitive areas, and using BMPs as necessary.
- Maintenance activities can occur between March 15th and September 15th using appropriate methods, crew sizes, avoiding sensitive areas, and using BMPs as necessary.
- Annual reports documenting work and compliance will be provided to regulatory agencies and the Conservancy. Future work areas for the next year will also be clearly indicated in annual reporting. All permits will clearly outline work conditions, and minimization & avoidance measures.
- Regulatory agencies, SDRC project managers and the project biologist assure compliance with the above measures. Any deviations from the approved methods would result in termination of active work and possible fines or compensatory mitigation.

Preserving and protecting cultural resources is a primary objective of the SDRC. Accordingly, this Project to control invasive non-native plants and restore the natural functions of the River will incorporate measures to protect and enhance cultural resources. The MND and MMRP outline the following measures to protect cultural resources:

- A site specific historical records search will occur at the South Coast Information Center. The search shall include the expectation and probabilities of discovery of historical resources within ¼ mile of the target site(s) during program implementation.
- If the project site is identified in the records search as not having been surveyed for historical resources (prehistoric and historical archaeological sites), a qualified archaeologist shall conduct a field survey of the site.
- The Project will be redesigned to avoid any historical resources identified during the records search and field survey, unless they are isolated artifacts.
- Any mowing and restoration work near or within registered cultural sites will have a certified archeologist and a cultural monitor on site to assure that no impacts to cultural resources occur.
- If archaeological or cultural features or materials are identified by the archaeologist during biomass removal, work will stop immediately in that area. No archaeological or cultural materials will be collected, but instead work will be diverted away from the sensitive areas, which will remain intact.

An evaluation of the significance of impacts from greenhouse gas emissions was not completed in the MND because it was adopted before the revised CEQA guidance for addressing greenhouse gas emissions was published (December 30, 2009; effective March 18, 2010). Although not required for an already approved environmental document, staff has completed the following analysis in order to determine the potential impacts of the Project on greenhouse gas emissions.

The Project will result in short-term air emissions but total impacts on greenhouse gas emissions are minimal. Some equipment and vehicles are used in the removal of *Arundo* from riverine systems, but this usage will be minimized to the extent possible. Much of the work will be done by hand and on foot. Long-term reductions in greenhouse gas emissions could result from eradicating *Arundo*. Large, dense *Arundo* stands with high biomass per acre mitigate increases in atmospheric carbon dioxide by sequestering carbon. However, the documented increase of riverine fires resulting from *Arundo* prevalence, in addition to fire conveyance, result in release of carbon back to the atmosphere. It is staff's conclusion that the minimal carbon emissions resulting from eradication activities are less than significant.

The Draft Mitigated Negative Declaration was circulated for public and agency review and comment for 30 days, beginning on July 7, 2009. The comment period ended on August 8, 2009 and the document was adopted on September 3, 2009. No comment letters were received. Staff recommends that the Conservancy find that there is no substantial evidence that the project, as modified by incorporation of the mitigation measures identified in the MND will have a potential for a significant effect on the environment as defined under 14 California Code of Regulations Section 15382. All supporting documents and the MND/MMRP are available at the Conservancy's office for review. Upon approval of the project, staff will file a Notice of Determination.