

WETLANDS ON THE EDGE

Southern California Wetlands Recovery Project Work Plan 2020



THE SOUTHERN CALIFORNIA WETLANDS RECOVERY PROJECT

PROJECT MISSION:

To expand, restore and protect wetlands in Southern California's coastal watersheds.

PROJECT VISION:

Restored and protected wetlands and rivers along the Southern California coast benefitting wildlife and people.

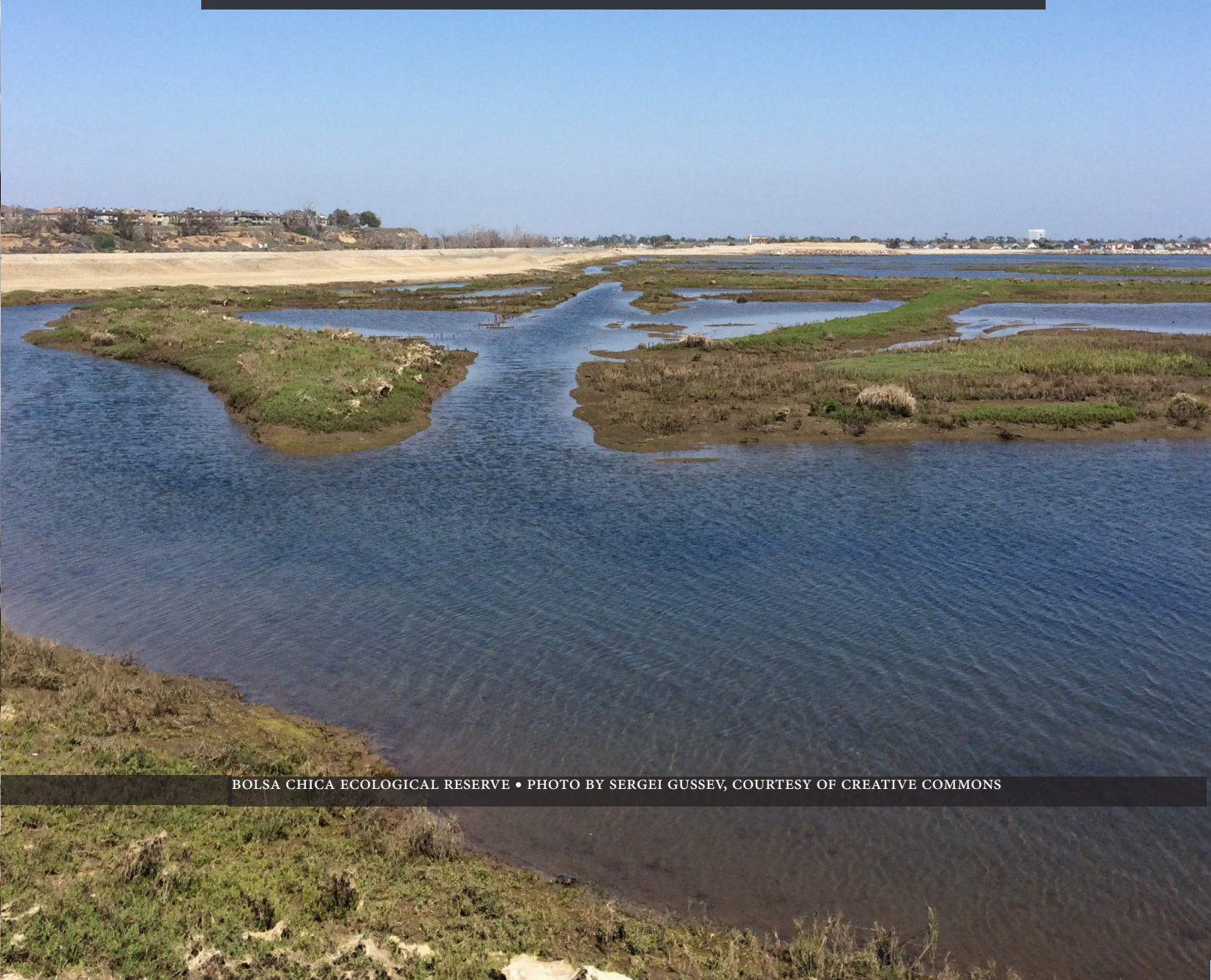
ORMOND BEACH • PHOTO COURTESY OF CALIFORNIA STATE COASTAL CONSERVANCY

INTRODUCTION

to the WRP

WHO WE ARE

The Southern California Wetlands Recovery Project (WRP) is a partnership of 18 State and Federal agencies, chaired by the California Resources Agency and supported by the California State Coastal Conservancy. Through the WRP partnership, public agencies, scientists, and local communities work cooperatively to acquire and restore wetlands in coastal Southern California. The WRP uses a non-regulatory approach by coordinating with agency partners, although many of the member agencies implement their own regulatory mandates.



BOLSA CHICA ECOLOGICAL RESERVE • PHOTO BY SERGEI GUSSEV, COURTESY OF CREATIVE COMMONS

THE REGIONAL STRATEGY

In 2018 the WRP published *Wetlands on the Edge: The Future of Southern California's Wetlands*. This report serves as the Regional Strategy for the WRP, and lays out a plan for the recovery and long-term survival of Southern California's wetlands. In the Regional Strategy, over 50 scientists and resource managers analyze how our wetlands have changed, their future potential and threats, and how we can ensure their health into the future. It provides quantitative Objectives for wetlands recovery that are based on our understanding of historical wetland location and area, current stressors on wetland ecosystems, such as development, and the future threat that is posed by sea-level rise and climate change.

The Regional Strategy will be implemented by the work of the WRP partners, through projects identified on the WRP Work Plan. The Work Plan is a list of projects that are consistent with the Goals, Objectives, Management Strategies, and Guiding Principles identified in the Regional Strategy. The Regional Strategy provides the WRP agencies with a framework to discuss, assess and provide feedback on projects. The Work Plan allows the funding agencies to agree on project design and approach, and coordinate funding for the most efficient and effective expenditure of resources.

The Work Plan identifies projects for all four of the WRP's Goals, and funding for projects will come through the unique funding sources of each WRP partner agency. Work Plan projects range from flagship tidal wetlands restoration projects to scientific studies focused on improving our knowledge of wetlands restoration and management. Stream restoration and fish passage projects are essential to the Work Plan, as is the Community Wetlands Restoration Grant Program, which focuses on education and outreach while also restoring habitat.

2020

55 Current Work Plan Projects

Total Project Cost = \$345,999,353

Total Funding Need = \$185,148,503

Wetland Acres to be Restored: 12,340

Stream Miles to be Restored: 414

The 2020 Work Plan consists of 35 projects: 16 tidal wetlands projects (Goal 1), 17 stream/watershed projects (Goal 2); 20 community access projects (Goal 3), and 2 research projects (Goal 4). The total funding need for these projects is \$185,148,503. The potential restoration area is 12,340 acres of tidal wetlands and 414 miles of streams.

DIRECTORS GROUP

State Partners

California Natural Resources Agency

Wade Crowfoot, Secretary (chair of the Directors Group)

State Coastal Conservancy

Sam Schuchat, Executive Officer

California Coastal Commission

Jack Ainsworth, Director

California Department of Fish & Wildlife

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California Department of Parks & Recreation

Lisa Mangat, Director

State Lands Commission

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State Water Resources Control Board

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Central Coast Regional Water Quality Control Board

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Los Angeles Regional Water Quality Control Board

Deborah Smith, Executive Officer

Santa Ana Regional Water Quality Control Board

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San Diego Regional Water Quality Control Board

David Gibson, Executive Officer

Federal Partners

U.S. Environmental Protection Agency, Region 9

Tomas Torres, Director, Water Division

National Marine Fisheries Service

Chris Yates, Assistant Regional Administrator

Natural Resources Conservation Service

Carlos Suarez, State Conservationist

U.S. Army Corps of Engineers

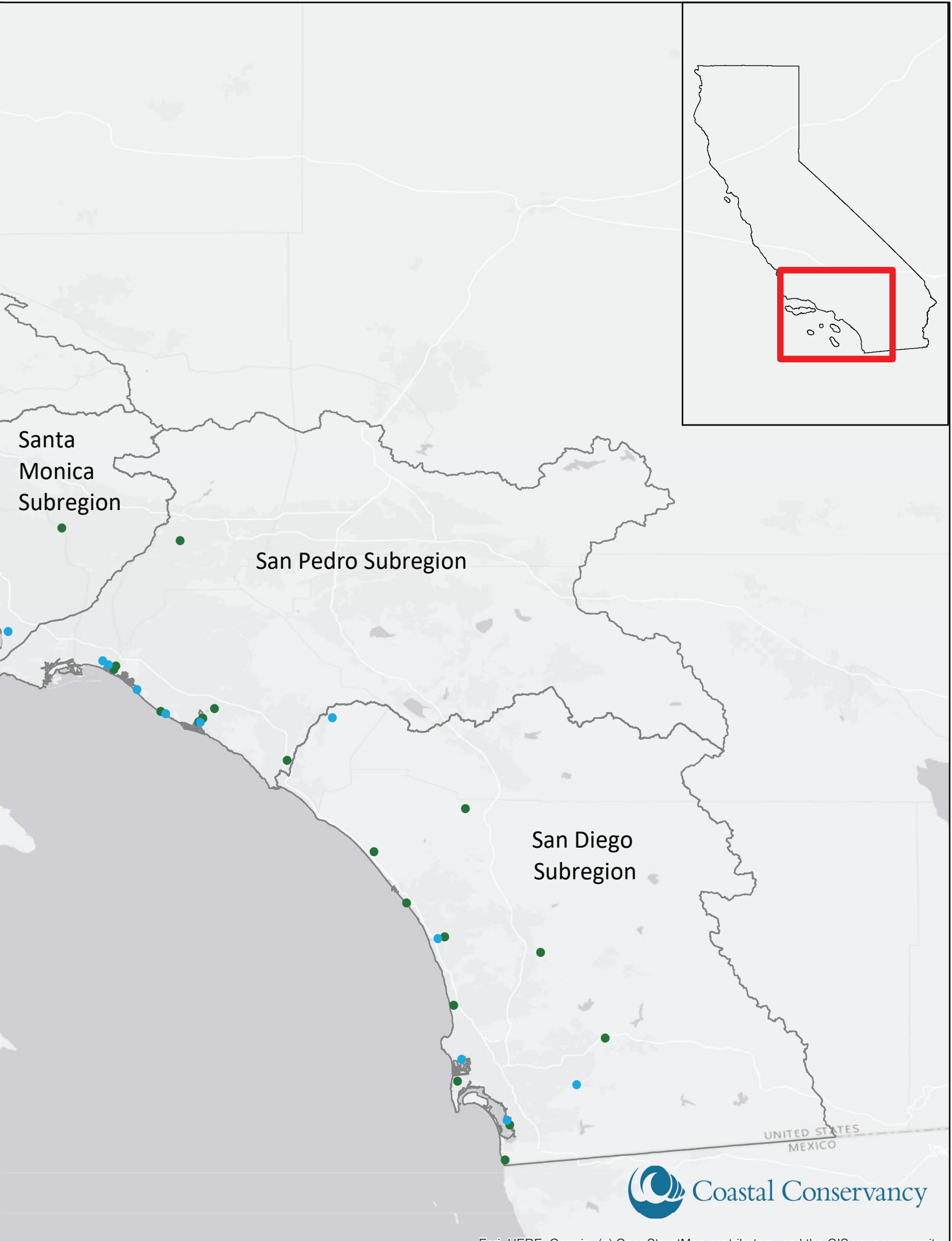
Colonel Kirk Aaron C. Barta, Commander of the Los Angeles District

U.S. Fish and Wildlife Service, Pacific Southwest Region

Paul Souza, Regional Director

Current WRP Projects





GOAL 1:

Preserve and restore resilient tidal wetlands and associated marine and terrestrial habitats

Goal 1 of the Regional Strategy presents the aspirational objective to restore 7,700 acres of tidal wetlands. Actions needed to accomplish this Goal will include facilitating wetland expansion into wetland-upland transition zones and restoring tidal action to degraded, filled, and constricted areas. Implementation of Goal 1 will also include the continued management of existing wetlands.

The following Goal 1 Work Plan projects represent a major shift in our approach to wetland recovery as they will not only protect current wetland areas, but they will also protect areas that are currently uplands but will be wetlands in the future due to sea-level rise.

The Restoration Objectives for Goal 1 of the Regional Strategy focus on these four priorities for tidal wetlands: **1) Protect and Restore Wetland Abundance and Size; 2) Protect and Restore Uplands around Wetlands; 3) Restore Wetland Connections; and 4) Protect and Restore Diversity of Wetland Types and Habitats.**

16 Current Goal 1 Projects

Total Project Cost = \$266,422,910

Total Funding Need = \$136,217,395

Wetland Acres to be Restored: 3,294

Stream Miles to be Restored: 0.65

Aliso Creek Estuary Restoration Plan: 30% Design & Permitting

LOCATION: Orange County

PROJECT TYPE: Planning

STATUS: Current

COST: \$624,920

FUNDING GAP: \$100,000

ACRES: 6

ASSEMBLY DISTRICT: 70

SENATE DISTRICT: 33

CONGRESSIONAL

DISTRICT: 48

PROJECT

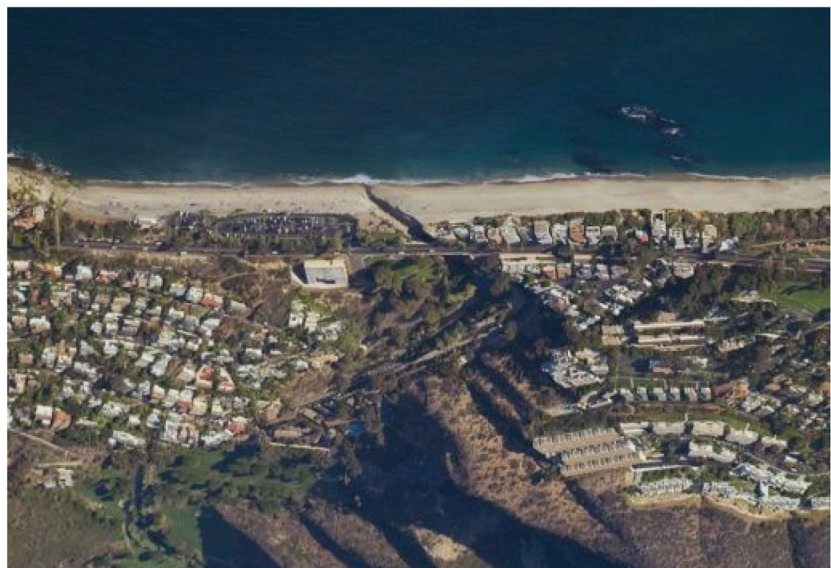
LEAD/GRANTEE:

Laguna Ocean Foundation

The Aliso Creek Estuary is a small, intermittently open estuary that drains a 30-square mile, mostly urbanized watershed in south Orange County. Aliso Creek once drained to the ocean through a broad estuary with expansive wetlands but has suffered habitat loss from development of a parking lot for Aliso Beach Park, modified hydrology, and poor water quality. A loss in normal seasonal fluctuations in water levels and native vegetation has led to the extirpation of the native Tidewater Goby and other native species from the estuary.

The Laguna Ocean Foundation will prepare a 30% restoration design plan, complete the CEQA environmental review process, and implement necessary studies for future permitting for the Aliso Creek estuary in Laguna Beach, Orange County, California. The restoration design and CEQA analysis will build off of the Conceptual Restoration Plan that was completed by the Laguna Ocean Foundation in 2017. Specifically, the project will develop all necessary information to perform an environmental impact assessment, including an infrastructure relocation plan and a refined grading plan. The grantee will also develop technical information necessary to support the CEQA and future permitting process such as a flooding and sea level rise analysis.

The project will also have significant scientific and community input through science advisory and stakeholder meetings. The stakeholder meetings will focus on resolving the desires of multiple landowners within the project area, particularly on the north side of the estuary, which is owned by County of Orange, South Coast Water District, and The Ranch at Laguna, a private landowner.



Ballona Wetlands Restoration Planning

LOCATION: Los Angeles County

PROJECT TYPE: Planning

STATUS: Current

COST: \$12,420,465

ACRES: 600

ASSEMBLY DISTRICT: 53

SENATE DISTRICT: 28

CONGRESSIONAL DISTRICT: 36

PROJECT LEAD/GRANTEE:

California State Parks



The Ballona Wetlands were once a 2,000-acre expanse of marshes, mud flats, salt pans, and sand dunes that stretched from Playa del Rey to Venice and inland to the Baldwin Hills. Today, only approximately 600 acres of open space remain of the former wetlands. A once-meandering Ballona Creek was cemented into a straight, concrete channel nearly 100 years ago and invasive plants now crowd out native plants, providing little sustenance for local wildlife. The land is owned by the State of California and comprises the Ballona Wetlands Ecological Reserve.

Rooted in years of scientific research and guided by community input, the Ballona Wetlands Restoration Project will revive critical wetland habitat and offer a remarkable natural space for the public's use and enjoyment. Restoring natural functions to the Reserve could heal this damaged landscape and create a thriving wildlife reserve and unique community asset, as has been accomplished with other wetland projects.

In 2009, the project partners completed the restoration feasibility study, which is available online at www.ballonarestoration.org. Since 2010, the Department of Fish and Wildlife, with support from project partners, has been working on an Environmental Impact Report for the proposed project. The Department hopes to finish the environmental review process in 2019 and begin the process of permitting the project.



Batiquitos Lagoon Exotics Removal and Revegetation

LOCATION: San Diego County

PROJECT TYPE: Restoration

STATUS: Current

COST: \$550,000

FUNDING GAP: \$350,000

ACRES: 16

ASSEMBLY DISTRICT: 76

SENATE DISTRICT: 36

CONGRESSIONAL DISTRICT: 49

PROJECT LEAD/GRANTEE:

Batiquitos Lagoon Foundation

The Batiquitos Lagoon is a 544-acre State Ecological Reserve with over 19 special-status species including the California Least tern, Western snowy plover, and light-footed Ridgway's Rail. Batiquitos suffers from invasion of multiple non-native plant species and these invasive plants have degraded the habitat of the lagoon and its upland transition areas. Left uncontrolled, invasive vegetation will further encroach on the limited and fragmented natural habitats that exist in and around Batiquitos Lagoon.

The project focus area is approximately 20 acres of riparian and wetland habitat adjacent to the northern portion of the Batiquitos Lagoon Ecological Reserve. The Batiquitos Lagoon Foundation uses their cadre of volunteers, and relationships with the California Department of Fish and Wildlife (the landowner), the City of Carlsbad, and the Nature Collective to assist with invasive plant and tree treatment and removal. This project will restore habitat using a multi-year phased approach, with a focus on replacing non-native trees (such as eucalyptus and palms) and plants with appropriate native species to improve bird nesting habitat. Success and long-term management of the project will be the Lagoon Foundation's ongoing maintenance program, with an emphasis on community involvement and volunteerism.



Coal Oil Point Reserve Coastal Access and Habitat Restoration: Phase 3

LOCATION: Santa Barbara County

PROJECT TYPE: Education, Restoration

STATUS: Current

COST: \$416,395

FUNDING GAP: \$307,395

ACRES: 167

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

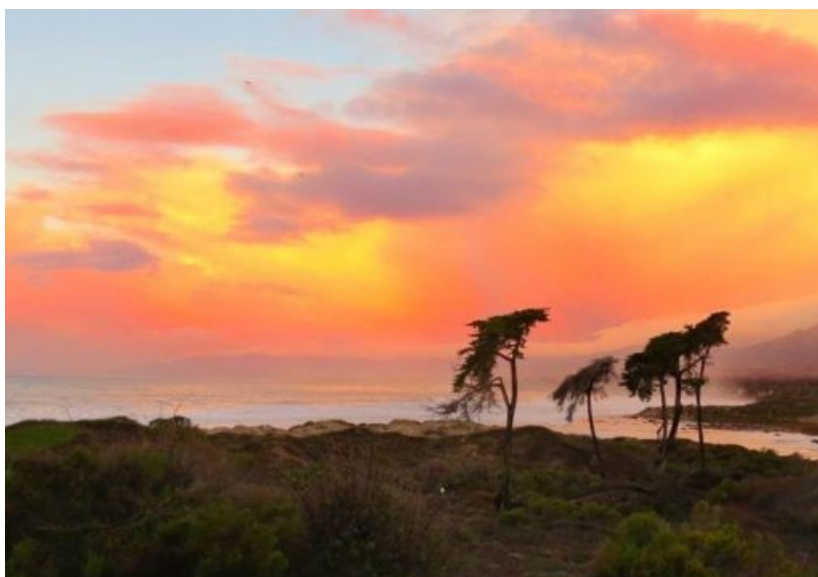
CONGRESSIONAL DISTRICT: 24

PROJECT LEAD/GRANTEE:

The Coal Oil Point Reserve

Within Coal Oil Point Reserve (COPR) is 170 acres of a variety of linked coastal habitats including a salt marsh, a vernal pool, a fresh-water pond, dune swales, an estuary, dunes, grasslands, and coastal scrub. The reserve has several rare, threatened, or endangered species such as Tidewater Goby, Western Snowy Plover, and Belding's Savannah Sparrow. Some of these have been extirpated in the past few decades by agricultural practices, habitat fragmentation, and invasive species.

This project proposes public access improvements and restoration and conservation measures in COPR, Goleta. The Pond Trail will be improved to increase public access and there will be new educational kiosks installed. There will also be a large effort to remove invasive species from the reserve such as Harding grass, tocolote, cape ivy, and dead eucalyptus trees, and revegetate with native species. This project is Phase 3 of the WRP Work Plan proposal submitted in 2010. Phase I and II have been funded by the Coastal Conservancy and Wildlife Conservation Board and are complete.



Loma Alta Slough Wetlands Enhancement Project –Phase 2 Implementation

LOCATION: San Diego County

PROJECT TYPE: Planning,
Restoration

STATUS: Current

COST: \$8,800,000

FUNDING GAP: \$8,670,000

ACRES: 4.4

ASSEMBLY DISTRICT: 76

SENATE DISTRICT: 36

CONGRESSIONAL DISTRICT: 49

PROJECT LEAD/GRANTEE:

City Of Oceanside – Water Utilities
Department

Loma Alta Slough is a small creek mouth estuary in the City of Oceanside, which is a small coastal community in Northern San Diego County, where approximately 40% of the City's total population is classified as a disadvantaged community. Intermittently opening estuaries such as the Loma Alta Slough provide unique habitats for coastally-dependent species, such as the endangered tidewater goby, but the estuary must be in healthy condition to maintain these important functions.

Watershed urbanization, degraded water quality, and wetland fill have degraded the health of Loma Alta Slough. Poor water quality in the Slough leads to public health concerns at the popular nearby Buccaneer Beach and flooding of adjacent land is also a concern. Because the area of the Slough has been reduced by fill and development, rising water levels during winter months can impact adjacent communities, including nearby trailer parks, which disproportionately affects lower-income communities.

The Loma Alta Slough Restoration Project will restore the historic conditions and ecological functions of the Slough in order to increase wetland coverage, restore habitat for native species, decrease flood risk, improve recreational opportunities, and minimize public health risks. The Project design will consider removing fill and restoring wetlands where possible, which will allow for expansion of the existing stream channel and/or restoration of historic wetland habitats.



Los Cerritos Wetlands Complex – Bryant Acquisition Phase II

LOCATION: Los Angeles County

PROJECT TYPE: Acquisition

STATUS: Current

COST: \$4,900,000

FUNDING GAP: \$2,900,000

ACRES: 18

ASSEMBLY DISTRICT: 70

SENATE DISTRICT: 34

CONGRESSIONAL DISTRICT: 47

PROJECT LEAD/GRANTEE:

Los Cerritos Wetlands Authority



This project aims to acquire the 87-acre Bryant Property, which is part of the approximately 400-acre Los Cerritos Wetlands Complex. As late as the 1920's, the Los Cerritos Wetlands covered approximately 1,500 acres.

However, channelization of the river for commercial and residential development, and extensive use for oil extraction and production over the last several decades, has reduced the footprint and health of the wetlands significantly. The majority of the remaining 400-acre wetland complex falls on three privately-owned properties referred to as the Bixby, Bryant and Hellman properties.

The Bryant Property is located in the City of Long Beach, south of Westminster Avenue and east of Studebaker Road. The property has been an active oil field for several decades and currently contains twelve active oil wells and associated pipelines, roads, and buildings. The historic wetlands on the property have been filled and degraded, primarily due to the oil production activities and have a high restoration need.

The Los Cerritos Wetlands provide valuable habitat to several species. Eighty-nine bird species have been recorded using the area, including forty-eight water associated bird species. Special status species occurring in the Los Cerritos Wetlands include Belding's Savannah sparrow, California least tern, Loggerhead shrike, Western snowy plover, and many others. The site benefits from a very active and support public community of bird and wetland lovers.



Los Cerritos Wetlands: Restoration Program

LOCATION: Los Angeles County

PROJECT TYPE: Acquisition,
Restoration

STATUS: Current

COST: \$142,000,000

FUNDING GAP: \$115,000,000

ACRES: 504

ASSEMBLY DISTRICT: 70

SENATE DISTRICT: 34

CONGRESSIONAL DISTRICT: 47

PROJECT LEAD/GRANTEE: Los
Cerritos Wetlands Authority

PROJECT LEAD WEBSITE: joel
gerwein, joel.gerwein@scc.ca.gov

Until the late 1800s, the Los Cerritos Wetlands Complex spanned approximately 2,400 acres and consisted of a network of meandering streams, vegetated wetlands, and upland areas. Most of the historic wetlands have been filled, lost or degraded, primarily because of oil extraction, channelization of the San Gabriel River, and construction of a cooling channel for nearby power plants. Portions have been used as land fill or burn dump areas, while others have been reduced in size by commercial and residential development. The Los Cerritos Wetlands provide regionally-significant wildlife habitat. The site is a feeding ground for local and migratory shore birds and a nesting site of special status species. Portions of the wetlands provide important spawning areas and food sources for intertidal and marine aquatic species. A variety of rare plant species inhabit its tidally-influenced drainages and disturbed wetland areas.

The Los Cerritos Wetlands Authority is working to provide a comprehensive program of acquisition, protection, conservation, restoration, maintenance, and environmental enhancement of the Los Cerritos Wetlands area consistent with the goals of flood protection, habitat preservation and restoration, improved water supply, water quality, groundwater recharge, and water conservation. Program goals include restoration of tidal influence to support tidal marsh habitats, restoration of habitat for special status species, and expansion of public access compatible with those goals.



Los Peñasquitos Lagoon Restoration

Design and Feasibility Study

LOCATION: San Diego County

PROJECT TYPE: Planning

STATUS: Current

COST: \$633,320

ACRES: 23

ASSEMBLY DISTRICT: 78

SENATE DISTRICT: 39

CONGRESSIONAL DISTRICT: 49

PROJECT LEAD/GRANTEE:

Los Peñasquitos Lagoon
Foundation

Once a pristine coastal estuary with extensive salt flat and salt marsh, Los Peñasquitos Lagoon has lost over half of its historic habitats as a result of human activities and land-use change. It is a 574-acre coastal estuary located in coastal north San Diego County, within the City of San Diego. The Lagoon is a State Marsh Natural Preserve that is part of the Torrey Pines State Natural Reserve, which is owned and managed by California State Parks.

This project will develop a Programmatic Environmental Impact Report (PEIR) based on the Los Peñasquitos Lagoon Enhancement Plan, and develop a conceptual restoration plan for a 23-acre restoration project where Sorrento Creek enters the Lagoon. The PEIR will develop a Lagoon-wide plan for actions that are needed to restore wetland functions and increase climate resiliency. The restoration plan will include project design and initial engineering for the first restoration project from the PEIR to be implemented, and will provide the background information needed to complete environmental review (CEQA/NEPA), which will occur in a future project phase.



McGrath State Beach – Wetlands Restoration and Campground Relocation

LOCATION: Ventura County

PROJECT TYPE: Planning,
Restoration

STATUS: Current

COST: \$12,760,000

FUNDING GAP:

\$25,520,000

ACRES: 40

ASSEMBLY DISTRICT: 44

SENATE DISTRICT: 19

CONGRESSIONAL DISTRICT:

26

PROJECT LEAD/GRANTEE:

California State Parks

The California Department of Parks and Recreation (State Parks) proposes expansion and enhancement of the Santa Clara River Estuary (SCRE) and relocation of the McGrath State Beach Campground as part of the McGrath State Beach Wetlands Restoration and Campground Relocation Project. The proposed project is located within McGrath State Beach, which is made up of the SCRE, an existing campground, an adjacent coastal dune and uplands area, beach areas, and McGrath Lake. The project site consists of the SCRE, existing campground, and the adjacent coastal dune/uplands area. The restoration project site is situated within a larger study area for full project design and potential effects that also includes the adjacent Santa Clara River channel and beach front. The project would involve converting a portion of the existing campground to a wetlands restoration area (such that it would become part of the SCRE to the north) and relocating a portion of the existing campground to the adjacent dunes/upland area to the south. The restoration and development aspects of this project are intricately linked, and therefore the boundary of each component will be defined through the California Environmental Quality Act (CEQA) process and consultation with regulatory agencies.



Newland Marsh Acquisition

LOCATION: Orange County

PROJECT TYPE: Acquisition

STATUS: Current

COST: \$2,400,000

ACRES: 44

ASSEMBLY DISTRICT: 67

SENATE DISTRICT: 35

CONGRESSIONAL DISTRICT: 46

PROJECT LEAD/GRANTEE:

State Coastal Conservancy

The Newland Marsh is a component of the 180-acre Huntington Beach Wetlands, historically part of a large Santa Ana River mouth coastal wetland system extending several miles inland from the ocean. Channelization of the river and construction of Pacific Coast Highway isolated the site from tidal influence in the early 1900's. The Newland Marsh is comprised of approximately 44 acres of relict coastal salt marsh located north of Pacific Coast Highway, east of Beach Blvd. Caltrans acquired the property in the 1950's for planned freeway construction that never occurred. Vegetation on the site consists mostly of pickleweed and alkali heath, with a small area of freshwater marsh containing cattail and bulrush. The dense pickleweed communities on the site appear to be ideal nesting habitats for the Belding's savannah sparrow.

This acquisition project would allow the Huntington Beach Wetlands Conservancy to purchase the Newland Marsh property from Caltrans. Acquisition of the property will enable the Wetlands Conservancy to pursue restoration of tidal influence to this last remaining degraded area of the Huntington Beach Wetlands system. The Newland Marsh will join the Talbert, Brookhurst and Magnolia marshes that have been acquired and restored by the Wetlands Conservancy since 1985. With restoration of tidal influence, the site could provide foraging for the California Least Tern and the California Brown Pelican, both species often observed feeding in other restored areas of Huntington Beach Wetlands.



Ormond Beach Wetlands Restoration Plan

LOCATION: Ventura

County

PROJECT TYPE: Planning

STATUS: Current

COST: \$448,000

ACRES: 1,100

ASSEMBLY DISTRICT: 37,
46

SENATE DISTRICT: 19, 29

CONGRESSIONAL

DISTRICT: 24, 28

PROJECT

LEAD/GRANTEE:

California State Coastal
Conservancy

At over 1,000 acres, Ormond Beach Wetlands is one of the largest wetland restoration opportunities in Southern California. Located in the City of Oxnard, Ormond Beach historically was a dumping ground for polluting industries. It is the site of a power plant and the EPA Halaco Superfund Site. South Oxnard, a poorer community, bears the brunt of this legacy. Most of the historic wetlands at Ormond Beach were drained and converted to agriculture and land use barriers such as roads and levees have hydrologically disconnected Ormond Beach wetlands from the 2,100 acres of wetlands associated with the adjacent Mugu Lagoon. This is one of the few places in coastal Southern California with an intact dune-transition zone-marsh system, allowing restoration of an intact wetland ecosystem and providing a buffer against sea level rise and the impacts of climate change. The largely agricultural surroundings provide an opportunity unique in most of coastal Southern California to expand the current protected areas and to restore the approximate extent of the historic wetland area.

The Coastal Conservancy and its partners will prepare a habitat restoration and public access plan for the coastal wetlands, beach, dunes, and associated uplands at Ormond Beach. This plan will result in the adoption of an EIR/EIS and enable to project to move forward into the permitting phase. A Preferred Alternative was selected, through a Restoration Feasibility Study, which proposes restoration of the historical lagoons, include related ecotones and grasslands, and allow room for shoreline transgression from sea level rise and storm erosion in accordance with complex models.



Ormond Beach Wetlands: Sod Farm Acquisition, Part 2

LOCATION: Ventura County

PROJECT TYPE:

Acquisition

STATUS: Current

COST: \$62,800,000

ACRES: 561

ASSEMBLY DISTRICT: 44

SENATE DISTRICT: 19

CONGRESSIONAL

DISTRICT: 26

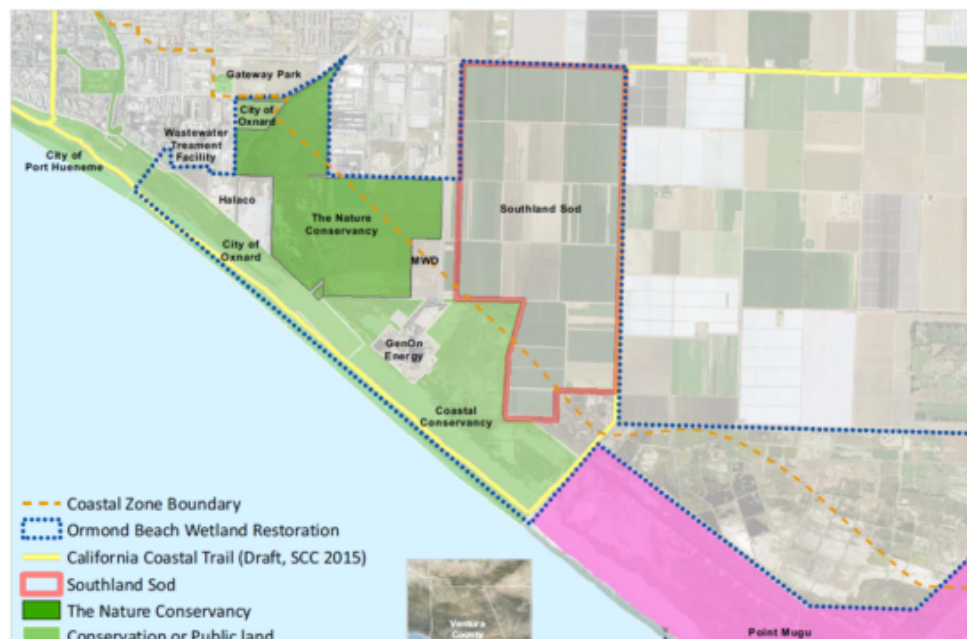
**PROJECT LEAD/
GRANTEE:**

California State Coastal
Conservancy



This project aims to acquire the 561 acre Southland Sod Farm for inclusion in the Ormond Beach wetlands. The property is the largest and most critical acquisition remaining to be secured before efforts can begin to restore one of the largest coastal wetland complexes in Southern California. Historically, the Ormond Beach area contained a diverse set of habitats including sandy beaches, coastal lagoons and estuaries, fore- and back-dune areas, brackish and seasonal freshwater marshes, freshwater drainages, grasslands, transitional uplands, and over two miles of beach. While the wetlands and other habitats found in the coastal area have undergone substantial alteration as a result of industrial, agricultural, and urban development, the existing natural communities are a significant resource for several plant and animal species.

Ormond Beach is considered by many wetland experts to be the most important wetland restoration opportunity in Southern California and is one of the highest priority projects for the Southern California Wetlands Recovery Project. Initial restoration plans for the 1,000-acre Ormond Beach wetland (which contains the property) include reestablishing the historic hydrologic linkage with the adjoining 1,200-acre Mugu Lagoon wetlands. This combined 2,200-acre wetland complex would constitute the largest coastal wetlands in Southern California.



Tijuana Estuary Tidal Restoration Program II: Phase I Restoration Design

LOCATION: San Diego County

PROJECT TYPE: Planning

STATUS: Current

COST: \$1,095,000

FUNDING GAP: \$200,000

ACRES: 100

ASSEMBLY DISTRICT: 78

SENATE DISTRICT: 40

CONGRESSIONAL DISTRICT: 51

PROJECT LEAD/GRANTEE:

Southwest Wetlands Interpretive
Association

The Tijuana Estuary Tidal Restoration Program II (TETRP II): Phase I Design is the first phase of a multi-phase restoration of the southern arm of Tijuana Estuary, San Diego County, California. TETRP II Phase I builds upon the conceptual restoration plan developed for the Tijuana Estuary – Friendship Marsh Restoration Feasibility and Design Study.

The Tijuana Estuary has been degraded by historic land uses and excess sedimentation, but includes remnant intertidal marsh, salt-pannes, mulefat scrub and sinuous slough channels. Several unique habitats exist in the immediate vicinity of the proposed project site, including fresh and saltwater wetlands, dunes, and maritime succulent scrub.

The TETRP II Phase I project has been designed to restore approximately 100 acres of salt marsh, mudflat, tidal channel, transitional and upland habitats that have been degraded over the past several decades, and to increase the tidal prism of the estuary. The current phase of the project includes final design, engineering and permitting for the restoration.



Topanga Lagoon Restoration Planning Phase 1

LOCATION: Los Angeles
County

PROJECT TYPE: Planning

STATUS: Current

COST: \$664,810

FUNDING GAP: \$460,000

ACRES: 41

STREAM MILES: 1500 Feet

ASSEMBLY DISTRICT: 50

SENATE DISTRICT: 27

CONGRESSIONAL DISTRICT:
33

PROJECT

LEAD/GRANTEE:

Santa Monica Mountains
Resource Conservation District



The Topanga Lagoon Restoration Planning Project will advance the long-term planning effort for the restoration of Topanga Lagoon. Steelhead in the Santa Monica Bay are on the brink of extinction and Topanga Creek is the only stream with a reproducing population. However, the conditions in Topanga Lagoon are not optimal to support growth and rearing opportunities for steelhead and the existing narrow channel opening under the bridge over Pacific Coast Highway (PCH) limits the opportunities for steelhead to enter Topanga creek or for smolts to emigrate. The remnant lagoon is currently less than two acres and is bordered by 35-foot tall banks of fill.

The proposed project consists of developing three conceptual restoration alternatives to restore ecological function, increase resiliency to sea level rise and climate change, and enhance the visitor experience. The project area is approximately 23 acres and includes several structures that could be modified and utilized for visitor activities, including low cost overnight accommodations. The remains of a Native American village have also been documented on the site and will be considered as part of the plan for the site. The project would provide as much as 15 acres of restored lagoon/ wetlands/ transition habitat, improve water quality at Topanga Beach by improving natural processes, and reduce flood hazards by expanding the lagoon's footprint. The outcomes will include a plan with three restoration alternatives (including No Project) at 30% conceptual design and an updated Caltrans Bridge Project Study Report.



Trancas Creek Lagoon Restoration Planning Project

LOCATION: Los Angeles County

PROJECT TYPE: Planning

STATUS: Current

COST: \$910,000

FUNDING GAP: \$910,000

ACRES: 7

STREAM MILES: 400 Feet

ASSEMBLY DISTRICT: 50

SENATE DISTRICT: 27

CONGRESSIONAL DISTRICT: 33

PROJECT LEAD/GRANTEE:

Santa Monica Mountains Resource

Conservation District

Trancas Lagoon is currently a seven-acre lagoon at the terminus of Trancas Creek in Malibu. In the lagoon, the creek flows through a modified channel, with riprap on the west bank and fill material vegetated with a mixture of wetland, riparian and non-native species. Historic maps and photos of Trancas Lagoon show that the lagoon formerly extended to the west of its present configuration, but was filled in over the years and put to a variety of uses. The former lagoon area on the west was eventually paved over, and by the 1960's the remaining lagoon area was bordered by commercial development.

Despite the current constraints, the lagoon still functions at a level that supports seasonal colonization of brackish water fish species such as staghorn sculpin (*Leptocottus armatus*) and California killifish (*Fundulus parvipinnis*). If restored, the lagoon has the potential to accommodate endangered tidewater gobies (*Eucyclogobius newberryi*) and southern steelhead trout (*Oncorhynchus mykiss*). Trancas Creek historically supported federally endangered southern steelhead trout, but they have been absent since the 1980's.

The project would complete the studies needed to produce a final design, construction plans, CEQA, and permitting documents necessary to implement restoration of Trancas Lagoon. These steps will build off of the work done in the Trancas Lagoon Restoration Feasibility Study (Dagit et al. 2015).



Upper Devereux Slough Restoration Implementation

LOCATION: Santa Barbara County

PROJECT TYPE: Restoration

STATUS: Current

COST: \$18,000,000

FUNDING GAP: \$1,800,000

ACRES: 100

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

PROJECT LEAD/GRANTEE:

UCSB Cheadle Center For
Biodiversity And Ecological
Restoration

The project is part of a coordinated effort to protect and restore 650 acres of contiguous coastal habitat (known as the Ellwood-Devereux Open Space) in perpetuity. Restoration of the slough will result in the creation of 57 acres of wetland habitat, including 24 acres of intermittently tidal estuarine wetlands and 56 acres of upland and transitional habitat. The project will improve water quality in the slough by removing the current golf course, will provide increased buffer area for storm surges and predicted sea level rise, and increase permeable surfaces, and expand the capacity of the Devereux Creek floodplain. Fill material removed from the property as part of restoration activities will facilitate restoration of the neighboring 69-acre property, which needs additional soil. The property provides a critical connection between adjacent areas of protected open space and lower Devereux Slough. Restoration of the property will also provide an unprecedented opportunity to create a wildlife corridor linking the Goleta Slough to the east with the existing protected lands to the west and south of the project site.



GOAL 2:

Preserve and restore streams, adjacent habitats, and other non-tidal wetland ecosystems to support healthy watersheds

Although the primary focus of the Wetlands Recovery Project is the recovery of coastal wetlands, the health of coastal wetlands is intimately linked to water and sediment flowing from the watersheds. Therefore, achieving the Objectives of Goal 1 requires restoration and management of the streams and non-tidal wetlands. The following Objectives will guide the restoration of non-tidal wetlands within the coastal watersheds.

PROTECT WHAT WE HAVE: Maintain 160,000 acres of existing streams and non-tidal wetlands through protection, restoration and enhancement measures.

RESTORE NON-TIDAL WETLANDS: Restore almost 50,000 acres of non-tidal wetlands in watersheds, to achieve 210,000 acres of non-tidal wetlands.

RESTORE WETLAND COMPOSITION: Restore or maintain 189,040 acres of streams and associated adjacent habitat and 21,000 acres of other non-tidal wetlands (depressional, slope, etc.).

RESTORE CONNECTIVITY IN WATER AND SEDIMENT: Ensure that there are no artificial physical barriers that obstruct water, sediment, and wildlife movement from watersheds to coastal wetlands and remove 100 percent of the total and partial barriers to steelhead passage in the high priority watersheds.

17 current Goal 2 Projects

Total Project Cost = \$77,029,079

Total Funding Need = \$46,937,942

Wetland Acres to be Restored: 8,980

Stream Miles to be Restored: 414

Atascadero and Maria Ygnacio Steelhead Restoration Design

LOCATION: Santa

Barbara County

PROJECT TYPE:

Planning

STATUS: Current

COST: \$371,000

ACRES: 1.62

STREAM MILES: 0.32

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

CONGRESSIONAL

DISTRICT: 24

PROJECT

LEAD/GRANTEE:

South Coast Habitat

Restoration

The Goleta Slough Complex is in coastal Santa Barbara County, about six miles northwest of the City of Santa Barbara. The eastern subwatershed of the complex is made up of the Atascadero watershed with Maria Ygnacio as the major tributary. Atascadero and Maria Ygnacio Creeks have consistent records of resident trout observed throughout the watershed and a few adult steelhead have been documented in the lower/mid sections of the watersheds. The Goleta Slough Complex is rated as a Core 2 watershed in the Southern California Steelhead Recovery Plan (NOAA, 2012).

There are multiple barriers to steelhead migration in this watershed, and this project addresses six major barriers within the Goleta Slough Complex beginning along Atascadero Creek and continuing upstream on Maria Ygnacio Creek. The six sites include four Santa Barbara County Public Works-owned concrete grade control channels, the Union Pacific Railroad crossing, and one concrete grade control structure owned by the Cachuma Operations and Maintenance Board. The goal of this project is to develop engineering designs for these six major creek barriers with the focus of restoring steelhead passage and enhancing riparian habitat.



Big Canyon Creek Restoration and Estuary Adaptation Project: Phase 2 Planning

LOCATION: Orange County

PROJECT TYPE: Restoration

STATUS: Current

COST: \$640,000

ACRES: 18.7

ASSEMBLY DISTRICT: 74

SENATE DISTRICT: 37

CONGRESSIONAL DISTRICT: 48

PROJECT LEAD/GRANTEE:

Newport Bay Conservancy

Big Canyon Creek is one of the few perennial streams that discharge to Upper Newport Bay in Orange County. Big Canyon Creek has experienced substantial watershed impacts such as channel incision, loss of floodplain areas, unstable riverbanks, poor water quality, infestation of riparian vegetation by the Polyphagous Shot Hole Borer (PSHB), and aggressive encroachment of invasive species.

The goals of this project are to: (1) remove of invasive plants and revegetation with native plants; (2) reduce the impacts of pollutants in the wetlands; (3) stabilize the creek and floodplain; (4) plan and implement restoration sea-level rise adaptations; (5) plan and implement riparian restoration efforts that are resilient to the PSHB; and, (6) enhance public access and educational opportunities.

This project will complete designs and environmental analyses for Phase 2A of the project consisting of approximately 9 acres of invaded riparian habitat. The project will also conduct feasibility studies to best develop and design a sea-level rise adaptation strategy for the tidal marsh and adjacent transition zones in Phases 2B and 2C.



Big Canyon Creek Restoration and Estuary Adaptation Project: Phase 2A Implementation

LOCATION: Orange County

PROJECT TYPE:

Restoration

STATUS: Current

COST: \$1,049,991

ACRES: 11.32

STREAM MILES: 0.2

ASSEMBLY DISTRICT: 74

SENATE DISTRICT: 37

CONGRESSIONAL

DISTRICT: 48

PROJECT LEAD/GRANTEE:

Newport Bay Conservancy

The Newport Bay Conservancy (NBC) will prepare final designs and implement restoration of 11.32 acres of coastal sage upland, riparian, and freshwater marsh habitats in the Phase 2A project area within the 60-acre Big Canyon Nature Park in the City of Newport Beach and County of Orange.

The project will improve the water quality, restore natural riparian habitat, and protect and restore estuary habitats. The project will also enhance public access and education with improved trails and closure of illegal trails.

The project is Phase 2A of a larger watershed restoration and builds upon the lessons-learned and outcomes of the previous phase of restoration (Phase 1), just upstream from the Phase 2A project area.



Hanson Floodplain Restoration

LOCATION: Ventura County

PROJECT TYPE: Restoration

STATUS: Current

COST: \$4,191,889

ACRES: 238

STREAM MILES: 5805

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

CONGRESSIONAL DISTRICT: 26

PROJECT LEAD/GRANTEE:

The Nature Conservancy

The Santa Clara River is one of the least altered river systems in all of California, with relatively natural flows and without significant channelization. The river flows over 100 miles from the San Gabriel Mountains in Los Angeles County westward across Ventura County and meets the Pacific Ocean near the City of Ventura. Due to its relatively natural condition, the Santa Clara River watershed not only provides habitat for numerous threatened and endangered species, but also creates a fertile valley for agriculture, and is an important source of water for the surrounding communities.

The Hanson property is approximately 1,000 acres, of which 345 acres are in the floodplain zone. The site is currently infested with the aggressive, invasive plant species *Arundo donax*, which disrupts natural stream flows and reduces the functions of native habitats for wildlife, including resident and migrating fish and aquatic species.

The project will focus on the restoration of 238 acres of riparian forest, riparian scrub and alluvial scrub. The goals of the project are to conserve, restore, enhance and create aquatic and riparian habitat based on the hydrologic and geomorphic processes that create and maintain these habitats. Eradication of *Arundo donax* and restoration of native habitat will increase stream flows and instream habitat complexity to support resident and migrating fish and aquatic species. The restored habitat will dynamically evolve and increase in complexity over time providing direct benefits to the listed species and other wildlife that occur in and migrate through the project area.



Los Angeles River Taylor Yard: Implementation Plan

LOCATION: Los Angeles County

PROJECT TYPE: Planning,
Restoration

STATUS: Current

COST: \$2,000,000

ACRES: 42.6

ASSEMBLY DISTRICT: 51

SENATE DISTRICT: 24

CONGRESSIONAL DISTRICT: 28

PROJECT LEAD/GRANTEE:

City Of Los Angeles



The Los Angeles River Taylor Yard project will create an Implementation Plan for the 42-acre Taylor Yard G2 River Park property. The Taylor Yard property has often been referred to as “The Crown Jewel” of the Los Angeles River revitalization. Due to its size, context, and potential for restoration, the Taylor Yard G2 River Park will be the largest and most significant river restoration project along the LA River to date. The site is situated in the center of the LA Basin and in the middle of the Los Angeles River as it winds through Los Angeles County.

The City of Los Angeles is developing the Implementation Plan for the Taylor Yard G2 River Park now. The City has convened a robust team to develop the plan that includes the Coastal Conservancy, Santa Monica Mountains Conservancy, California Department of Parks and Recreation (State Parks), US Army Corps, and various NGOs, and elected officials. The proposed planning effort will include: (1) a plan for safe near-term (prior to permanent use) public access; (2) a plan for long-term access, use and management responsibilities; (3) a revised Remedial Action Program (RAP); (4) public engagement and involvement, particularly from the surrounding communities; (5) three buildable, scalable, phase-able design concepts that accommodate public access, habitat restoration consistent with the ARBOR Study and compatible recreation; (6) a project financing plan outlining interim to permanent use options; (7) a plan for long-term operations and maintenance; and (8) a plan for construction of first phase of the Taylor Yard River Park within five years. In addition, as part of the proposed project, the City will install fencing and signage to secure the site and protect public safety during the planning process.



Matilija Dam Ecosystem Restoration Program: 65% design & permitting

LOCATION: Ventura County

PROJECT TYPE: Planning

STATUS: Current

COST: \$3,500,000

STREAM MILES: 17

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

CONGRESSIONAL DISTRICT: 26

PROJECT LEAD/GRANTEE:

Ventura County Watershed

Protection District

Matilija Dam, located on the Ventura River, is a 168-foot high concrete arch dam built in 1947 for water storage. The reservoir behind Matilija Dam is almost filled in with sediment, significantly reducing storage capacity to the point of rendering the dam nonfunctional. With no fish ladder or bypass structure present, it is a complete barrier to the migration of endangered Southern California steelhead. Dam removal will reconnect access to critical steelhead habitat and help with the recovery of steelhead in Southern California.

The Matilija Dam Ecosystem Restoration Program: 65% Design will develop restoration designs and engineering plans to remove Matilija Dam in a manner that would reduce the impact of impounded sediment while minimizing costs and time associated with sediment removal. This project includes field investigations, a dam removal feasibility study (10% design), independent technical review, 30% and 65% project design, update of the Real Estate Plan, CEQA/NEPA compliance, a project permitting plan, and associated design oversight and stakeholder meetings. Preparation of the 65% Design and Planning will provide the needed basis to take designs to 100% through other federal, state, and local funding opportunities.



Rio Hondo/Upper San Gabriel River Watershed Arundo Eradication Program

LOCATION: Los Angeles
County

PROJECT TYPE:
Restoration

STATUS: Current

COST: \$2,400,000

FUNDING GAP: \$1,430,000

ACRES: 45

STREAM MILES: 14.5

ASSEMBLY DISTRICT: 41, 48,
49, 55, 57

SENATE DISTRICT: 22, 25, 29,
32

CONGRESSIONAL

DISTRICT: 27, 32, 38, 39

PROJECT LEAD/GRANTEE:

Council For Watershed
Health

The Rio Hondo/Upper San Gabriel River Watershed *Arundo* Eradication Program will remove 80 acres of *Arundo donax* and coexisting infestations of several other invasive plants from the San Gabriel River and Rio Hondo at Whittier Narrows. Monitoring for treatment efficacy, missed invasives, and resprouts will continue past initial treatment for a total project duration of five years.

The San Gabriel River serves as the primary water source for many cities along the river through recharge of the Upper San Gabriel and the Central groundwater basins. *Arundo* transpires water at a much higher rate than locally-native vegetation and *Arundo* control in the San Gabriel River could add as much as 1,000 acre-feet/year of water to the groundwater supplies (Giessow, et al. 2011). Rio Hondo, though part of the LA River Watershed, runs parallel to the San Gabriel River through the Whittier Narrows, and popular recreational destination with preserved riparian and upland sage scrub habitat. Removing invasive such as *Arundo* from this stretch of the Rio Hondo and San Gabriel Rivers will help to restore the Whittier Narrows area to natural habitat, increasing water supply and improving ecosystem functions.



San Diego Canyon Wetlands Restoration Project

LOCATION: San Diego County

PROJECT TYPE: Planning

STATUS: Current

COST: \$348,000

ACRES: 1,234

STREAM MILES: 82,600 Feet

ASSEMBLY DISTRICT: 76

SENATE DISTRICT: 39

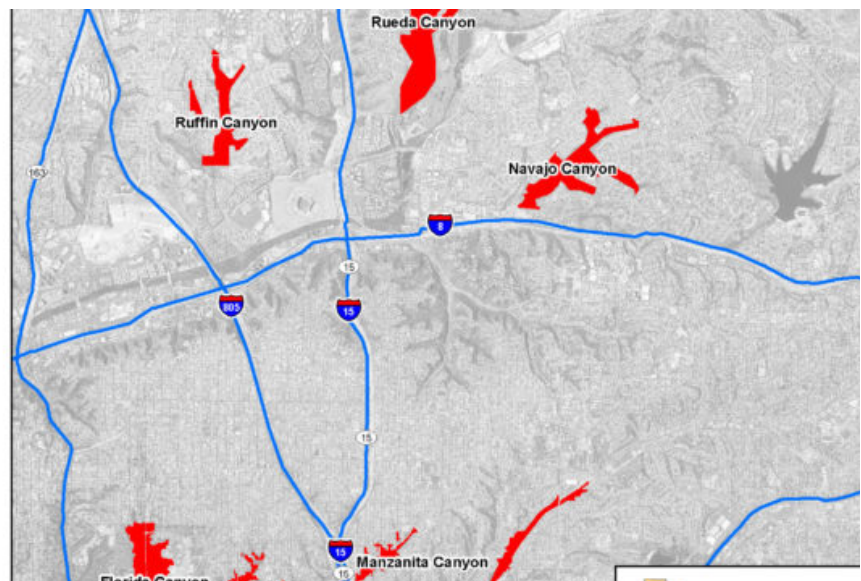
CONGRESSIONAL DISTRICT: 51,
52, 53

PROJECT LEAD/GRANTEE:

San Diego Canyonlands

As part of a multi-phased plan to restore all stream corridor wetlands within the City of San Diego, the San Diego Canyon Wetlands Restoration Project will produce Canyon Enhancement Action Plans for 1,234 acres of wetlands and canyon slopes and 82,600 feet of stream corridors in nine urban canyons. The focus of this project are primarily isolated islands of open space within an urban matrix, but provide rich opportunities for natural water filtration and important connectivity and habitat for mobile wildlife species. All the canyons are within the City of San Diego's Multiple Species Conservation Program Subarea (MSCP-MHPA), and several harbor endangered and threatened species, including the California Gnatcatcher (*Polioptila californica*). Their combined 15.6 miles (82,600 feet) of stream corridors are generally surrounded by steep slopes of Coastal Sage Scrub and mixed Chaparral upland communities. The canyons are impacted by erosion, trash, non-native/invasive plants, redundant/renege social trails and other human impacts.

This project will cover the required mapping and existing conditions analyses, stakeholder planning program, and necessary permitting to restore wetlands in these nine canyons. The Action Plans will include priority wetland and upland restoration areas, trails identified to close or improve, and other enhancements that will reduce habitat fragmentation, erosion and other degradation. The project will also bolster the existing "Canyon Friends Groups" established for each of these canyons, to support and implement planned projects to the degree possible and provide sustainable stewardship for all canyon projects.



San Diego River Watershed Riparian Restoration Program

LOCATION: San Diego County

PROJECT TYPE: Restoration

STATUS: Current

COST: \$5,000,000

ACRES: 329

ASSEMBLY DISTRICT: 36

SENATE DISTRICT: 36

CONGRESSIONAL DISTRICT: 50,
52

PROJECT LEAD/GRANTEE:

San Diego River Conservancy

The San Diego River Conservancy and partner organizations have carried out control of *Arundo donax* and other invasive non-native plant species at several sites within the San Diego River Watershed for many years. Introduced non-native plants in the San Diego River Watershed cause various issues such as increase flood and fire risk, destroy property, reduce water quality through erosion, alter ecosystem functions, and lead to native habitat loss which contributes to threatened and endangered species.

Beginning in 2009, 354 acres invasive non-native plants have been mapped and targeted for removal along the lower San Diego River. Since then, the River Conservancy has realized invasive vegetation is not limited to stream channels and so has expanded target areas to cover the entire watershed (440 sq. mi). This watershed-wide program has completed a Mitigated Negative Declaration under the California Environmental Quality Act and has secured all necessary permits.



San Dieguito Watershed Invasive Species Control and Revegetation

LOCATION: San Diego County

PROJECT TYPE:

Restoration

STATUS: Current

COST: \$4,766,000

FUNDING GAP:

\$3,000,000

ACRES: 847

STREAM MILES: 55

ASSEMBLY DISTRICT: 77

SENATE DISTRICT: 39

CONGRESSIONAL DISTRICT:

52

PROJECT LEAD/GRANTEE:

San Dieguito River Park Joint
Powers Authority

The San Dieguito River Watershed headwaters flow from the Volcan Mountain north of Julian and meanders some 55 miles through conifer and oak woodlands, grasslands, and chaparral to the San Dieguito Lagoon between Del Mar and Solana Beach. Invasive non-native plant species in the watershed are displacing native habitat, depleting freshwater, causing numerous water quality impacts, and creating flood and fire threats.

This watershed-wide project will lead to the restoration of 847 acres of riparian and marsh habitat in the San Dieguito River watershed through the treatment and control of invasive species such as *Arundo donax*, perennial pepperweed, pampas grass, eucalyptus, and tamarisk, with subsequent revegetation using native species. Since 2009, over 20 river miles have been successfully restored through the removal of invasive plants and subsequent habitat restoration.

The river is designated as critical habitat by the U.S. Fish and Wildlife Service for four endangered species: least Bell's vireo, southwestern willow flycatcher, arroyo southwestern toad, and light-footed Ridgway's rail. The San Dieguito River Valley is also recognized as an official 'cornerstone' of both the County MHCP and City MSCP Plans. The invasive control program is also part of an integrated regional effort that uses proven approaches of mapping, permitting and monitoring.



San Joaquin Marsh Enhancement – Phase II Implementation

LOCATION: Orange County

PROJECT TYPE:

Restoration

STATUS: Current

COST: \$2,000,000

FUNDING GAP: \$450,000

ACRES: 40

ASSEMBLY DISTRICT: 74

SENATE DISTRICT: 37

CONGRESSIONAL

DISTRICT: 45

PROJECT LEAD/GRANTEE:

University Of California,
Irvine



The University of California, Irvine manages the San Joaquin Marsh Reserve, approximately 202 acres of a remnant extensive fresh to brackish water marsh system in coastal Orange County.

Agricultural and urban development in Irvine during the 20th century drained shallow water aquifers, severed hydrological connections, and altered the course of San Diego Creek to a flood control channel, affecting the source, quantity, and quality of water available to the Marsh Reserve. In the past decade, drought periods have intensified and lengthened, lowering water levels and shortening periods of flow in San Diego Creek channel. Thus, maintaining water levels using current infrastructure has been challenging.

The UC Natural Reserve is developing plans for proposed improvements at the Reserve that will ensure sustainability of existing habitat that supports migratory birds otherwise threatened by the impacts of climate change. The project will increase the ability to retain water in refugia units in drought years and providing more direct sources of freshwater inputs. Excavation of sediment in the lower unit of the marsh will improve wetland ecological function by allowing for enhanced water flow, and will create wetland emergent habitat and open water during wet years. The goals of the project are to: 1) secure freshwater 2) control water among marsh management units, and 3) re-establish a connection with the upper estuary of the Newport Bay. Project tasks include completing engineering design plans, updating permit documents for Phase II Marsh Reserve improvements, and establishing construction contracts.



San Jose Fish Passage Project

LOCATION: Santa Barbara County

PROJECT TYPE:
Restoration

STATUS: Current

COST: \$2,036,804

FUNDING GAP:
\$2,016,804

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

CONGRESSIONAL DISTRICT: 24

PROJECT LEAD/GRANTEE:

Cachuma Resource
Conservation District

San Jose Creek is the largest sub-watershed within the Goleta Slough watershed, which is designated a Core 1 watershed for Southern California steelhead restoration in the Southern California Steelhead Recovery Plan (NMFS 2012). The creek has perennial flows and high-quality steelhead habitat in the upper watershed, but access to the upper creek is impeded by three fish passage barriers. The Cachuma Resource Conservation District and its partners completed a Feasibility Study in 2015 that assessed improvement of these barriers and has subsequently completed plans for the project.

The project will implement the Feasibility Study by removing an obsolete dam (Barrier #1), an Arizona road crossing (Barrier #2) and a culverted earthen road crossing (Impediment #1) on San Jose Creek. This project will allow steelhead to reach over two miles of currently inaccessible, high quality spawning and rearing habitat. The Cachuma Resource Conservation District is currently working with landowners to move into project implementation.



Santa Clara River Riparian Restoration and Community Engagement for the Santa Paula to Sespe Conservation Area

LOCATION: Ventura County

PROJECT TYPE:

Restoration

STATUS: Current

COST: \$23,750,000

FUNDING GAP:

\$16,400,000

ACRES: 6,000

STREAM MILES: 80,000 Feet

ASSEMBLY DISTRICT: 37

SENATE DISTRICT: 19

CONGRESSIONAL DISTRICT:

26

PROJECT LEAD/GRANTEE:

Santa Clara River

Conservancy

The Santa Clara River (SCR) flows through northern Los Angeles and Ventura Counties, at the junction of 5 Bioregions, retains much of its hydrological integrity, and sustains over 18 federally listed species. However, the SCR faces numerous ecosystem stressors, including habitat loss and inputs from intensive agriculture and urbanization, and invasion by numerous non-native plant and animal species. The project area is approximately 16 river miles within the floodplain of the SCR in Ventura County roughly between the confluences of Sespe and Santa Paula Creeks. This reach of the SCR is designated as Critical Habitat for southern steelhead trout and the Sespe reach is also identified as a Wild & Scenic River. The project will implement control strategies and eradicate *Arundo* from approximately 2,767 acres along this 16-mile reach of the SCR.



Santa Margarita River Fish Passage Project

LOCATION: San Diego
County

PROJECT TYPE:
Restoration

STATUS: Current

COST: \$605,395

ACRES: 1

STREAM MILES: 12

ASSEMBLY DISTRICT: 75

SENATE DISTRICT: 38

CONGRESSIONAL

DISTRICT: 50

PROJECT LEAD/GRANTEE:

Trout Unlimited

The proposed project will provide 90% design plans for remediation of two key steelhead passage barriers on Santa Margarita River, comprising an abandoned Sandia Creek ford river crossing and a currently active Sandia Creek bridge that cross the Santa Margarita River near the confluence with Sandia Creek. This project provides the biological, hydrologic, geomorphic, and structural analysis of the project site to inform selection of fish passage enhancement alternatives and results in the recommendation of a preferred alternative ready for on-the-ground implementation.

This project leverages earlier funding for the SMR Steelhead Assessment led by Trout Unlimited- South Coast Chapter, and furthers effective fish passage work in San Diego, Orange and Riverside Counties in Southern California. The project will fund work of an environmental consultant with fish passage design engineering expertise to further evaluate and address these barriers including a site plan, grade control structure plan and sections, ford removal, civil and roadway design if needed, streambed restoration, and engineer's cost estimate for review and approval.



Trabuco Creek Fish Passage Project at the Metrolink and I-5 Bridges

LOCATION: Orange County

PROJECT TYPE: Planning

STATUS: Current

COST: \$22,000,000

FUNDING GAP: \$20,000,000

ACRES: 25

STREAM MILES: 0.5

ASSEMBLY DISTRICT: 73

SENATE DISTRICT: 36

CONGRESSIONAL DISTRICT: 49

PROJECT LEAD/GRANTEE:

California Trout

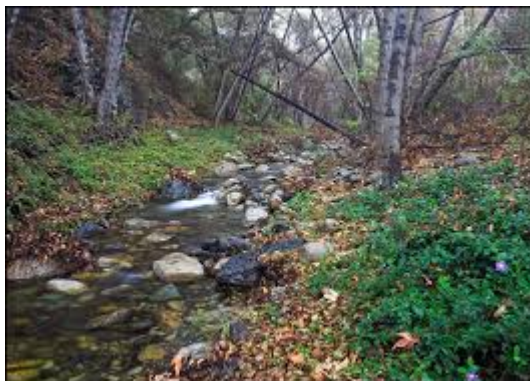


This fish passage project at the Interstate 5 bridge array and Metrolink Railroad Bridge crossing on Trabuco Creek addresses some of the most significant fish passage barriers in Southern California. Trabuco Creek is in the San Juan Creek watershed in Orange County, a high priority steelhead recovery river identified in the National Marine Fisheries Services Southern California Steelhead Recovery Plan (2012). The two barriers to fish passage at the I-5 and Metrolink crossings, which up until now have been considered separately, are being considered as one project because of their proximity.

The project, led by California Trout in partnership with Trout Unlimited, features complex technical design and large-scale construction that will a) remediate two adjacent barriers located about 0.5 miles apart in lower Trabuco Creek, B) provide steelhead passage through these barriers beneath the Metrolink railroad bridge and the I-5 bridge array, c) restore the 1/2 mile stretch of stream channel between the two structures, and d) improve infrastructure at the project site.

The project is nearing completion of 65% engineering design plans. The next steps in the project will be final design and then construction of the two fishways.

Fish passage design has been funded by California Department of Fish and Wildlife, National Fish and Wildlife Foundation, and Wildlife Conservation Board. Funding is currently being sought for final design and construction, which is planned for completion by 2025.



Trancas Creek Flood Control Channel Restoration Planning Project

LOCATION: Los Angeles County

PROJECT TYPE: Planning

STATUS: Current

COST: \$1,300,000

FUNDING GAP: \$1,300,000

ACRES: 5.5

STREAM MILES: 4,500 Feet

ASSEMBLY DISTRICT: 50

SENATE DISTRICT: 27

CONGRESSIONAL DISTRICT: 33

PROJECT LEAD/GRANTEE:

Santa Monica Mountains Resource

Conservation District

The Trancas Creek Watershed (8.7 square miles) is a small coastal creek draining into the western end of the Santa Monica Bay. Trancas Creek has good to excellent spawning and rearing habitat for endangered southern steelhead trout (*Oncorhynchus mykiss*) and has been identified as a priority for restoration by the *Santa Monica Mountains Steelhead Habitat Assessment* (CalTrout 2006) and the *Santa Monica Mountains National Recreation Area General Management Plan* (2002). CalTrout (2006) identified the flood control channels installed to protect the Malibu West Development in the 1960's as the keystone fish passage barrier.

The proposed project will build upon the *Trancas Lagoon Restoration Feasibility Study* (Dagit et al. 2015) and result in construction-ready design and environmental documents needed to set the stage for implementation of fish passage restoration. This project will complete hydrologic modeling studies to develop construction, CEQA and permitting documents for restoring fish passage through the flood control channels in Trancas Creek.



Upper Los Angeles River Watershed Arundo Eradication Program

LOCATION: Los Angeles County

PROJECT TYPE:

Restoration

STATUS: Current

COST: \$1,070,000

FUNDING GAP: \$968,500

ACRES: 30

STREAM MILES: 9.25

ASSEMBLY DISTRICT: 38, 39, 43,

45, 46, 51

SENATE DISTRICT: 18, 21, 24, 25,

27

CONGRESSIONAL

DISTRICT: 25, 28, 29, 30, 33, 34

PROJECT LEAD/GRANTEE:

Council For Watershed Health

Arundo donax (giant reed) invasions eventually destroy riparian habitat by usurping groundwater and sunlight and increasing flammability of riparian corridors, which together stress or kill existing native trees and prevent establishment of new seedlings. The impenetrable Arundo thickets also constrict flood flows on river channels and have little value to wildlife. Riparian habitat is a precious limited resource in the Los Angeles River watershed because most stream courses have been channelized. A regional goal of eradicating Arundo from the watershed must include the highest upstream infestations in all tributary canyons.

The proposed project will remove Arundo from private land in five tributary canyons located along north side of San Fernando Valley: Box Canyon, Devil Canyon, Pacoima Canyon, Little Tujunga Canyon, and Big Tujunga Canyon. All five of these canyons eventually drain to the Los Angeles River. The total project area affected is approximately 300 acres, with approximately 5 miles of stream corridor. Primary vegetation communities are riparian woodlands dominated by native white alder, sycamore, cottonwood, and willow species.





GOAL 3:

Support education and compatible access related to coastal wetlands and watersheds

Southern California is an urban environment and recovering wetlands will enhance the quality of life for the 30 million people who live in the region. In order to support education and public access, the WRP will pursue projects that enhance the public's enjoyment and understanding of wetlands, improve community stewardship, and better serve disadvantaged and underserved communities.

Coastal Wetlands Restoration Grant Program

The Community Wetland Restoration Grant Program (CWRGP) provides funding annually for community-based restoration projects in coastal wetlands and along coastal streams in the Southern California region. The CWRGP's purpose is to further the wetland recovery goals of the Southern California Wetlands Recovery Project's (WRP) Regional Strategy 2018; build local capacity to plan and implement wetland restoration projects; promote community involvement in wetland restoration activities; and foster education about wetland ecosystems. Projects funded through the program must include educational and community involvement elements as strong components of the project.



20 current CWRGP projects

96 current wetland acres

Current total budget = \$514,414

16 non-profits, 1 academia, 2 local governments

58% of projects include youth involvement

2 current Goal 4 Projects

Total Project Cost = \$2,547,364

Total Funding Need = \$1,993,166

Wetland Acres to be Restored: 66.72

GOAL 4:

Advance the Science of Wetland Restoration and Management

One of the key roles of the Wetlands Recovery Project is to apply the best available science to wetland management decisions. Through the development of this Regional Strategy, we have identified the following Science Objectives to continue to advance our understanding:

1. Analyze the ecological and physical effects of coastal jetties and other hard infrastructure on wetland function.
2. Develop quantitative objectives for the unique wetlands of the Channel Islands.
3. Implement a regional wetland monitoring and assessment program.
4. Maintain a standing Science Advisory Panel for the region
5. Refine the sea-level rise vulnerability assessment to be more site-specific and incorporate new data.
6. Refine the quantitative objectives for salt flats, intermittently-open/closed estuaries, wetland-upland transition zones, and shallow subtidal areas.
7. Refine the objectives for non-tidal wetlands (streams, rivers and other freshwater wetlands).

San Diego Bay Native Oyster Living Shoreline

LOCATION: San Diego County

PROJECT TYPE: Research

STATUS: Current

COST: \$1,271,028

FUNDING GAP: \$836,428

ACRES: 65.7

ASSEMBLY DISTRICT: 78

SENATE DISTRICT: 39

CONGRESSIONAL DISTRICT: 51

PROJECT LEAD/GRANTEE:

California State Coastal

Conservancy

San Diego Bay was historically a shallow water system composed of significant intertidal habitat. However, decades of dredging and channelization have resulted in a loss of 42 percent of San Diego Bay's shallow subtidal habitat and 84 percent of its intertidal mudflat habitat since the late 1800's. These modifications and associated shoreline armoring have resulted in the loss of most of the natural shoreline protection that marshes, oyster beds, and other intertidal and shallow subtidal habitats provided. Native Olympia oysters were a dominant native species in these areas of San Diego Bay until the early 1900's when their populations declined due to over-harvesting, pollution, and loss of wetlands. Today, viable native oyster stock still exists in San Diego Bay, but a lack of hard substrate habitat prevents oyster populations from re-establishing.

The goal of the San Diego Bay Native Oyster Living Shoreline Project is to create a biologically rich native Olympia oyster (*Ostrea lurida*) reef as a living shoreline in south San Diego Bay. As a pilot project, it will aim to serve as part of a complete marsh system that is ecologically functional and resilient to changing environmental conditions and protects bay tidelands and the adjacent shoreline. The project will aim to test baycrete elements with the goal of establishing native oyster reefs that protect shorelines from erosion while providing important habitat for wetlands, aquatic plants and ecologically and commercially important wildlife. The project will also aim to provide improved water quality via settling of sediments and pollution filtration and will increase wetland connectivity to intertidal and subtidal lands.



Upper Newport Bay and Alamitos Bay Living Shoreline Project

LOCATION: Los Angeles County,
Orange County

PROJECT TYPE: Research

STATUS: Current

COST: \$1,276,336

FUNDING GAP: \$1,156,738

ACRES: 1.02

ASSEMBLY DISTRICT: 70

SENATE DISTRICT: 33

CONGRESSIONAL DISTRICT: 47

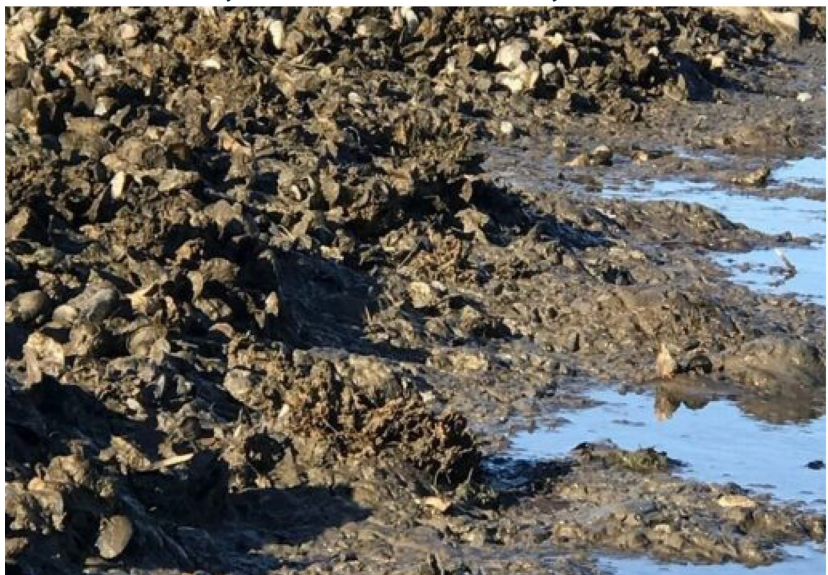
PROJECT LEAD/GRANTEE:

Orange County Coastkeeper

Newport Bay and Alamitos Bay are both highly impacted and urbanized estuaries located in Orange County in Southern California. Historical documents indicate the presence of native Olympia oyster (*Ostrea lurida*) beds and extensive eelgrass beds in the two estuaries, but a history of urbanization, harvest, and dredging has severely impacted the two species. Additionally, increased rates of sea level rise and restricted upslope migration may limit long-term viability of these habitats.

Resource managers are increasingly pursuing living shoreline projects that test using natural habitats to promote shoreline resiliency, including native oysters and eelgrass. Both species promote shoreline resiliency by capturing sediments, reducing erosion, and by creating habitat and trophic support for important fishery species.

To address Olympia oyster and eelgrass loss and to explore the extent to which they can promote shoreline resiliency, Orange County Coastkeeper is leading several living shoreline projects in Newport Bay and Alamitos Bay, which are considered as one project. The project will involve collecting data on oyster and eelgrass success, habitat use by fish, invertebrates and birds, and sediment dynamics on the oyster beds and upshore, and this monitoring must be done over a long period (5-10 years minimum) in order to accurately measure project benefits and impacts. Additional funding is needed to expand sampling on sediment dynamics and bed resiliency.



2019 WRP Work Plan Projects

Project Name	County	Project Type	Total Cost
Aliso Creek Estuary Restoration Plan: 30% design & permitting	Orange	Planning	\$ 624,920
Atascadero and Maria Ygnacio Steelhead Restoration Design	Santa Barbara	Planning	\$ 371,000
Ballona Wetlands Restoration Planning	Los Angeles	Planning	\$ 12,420,465
Batiquitos Lagoon Exotics Removal and Revegetation	San Diego	Restoration	\$ 550,000
Big Canyon Creek Restoration and Estuary Adaptation Project: Phase 2 Planning	Orange	Restoration	\$ 640,000
Big Canyon Creek Restoration and Estuary Adaptation Project: Phase 2A Implementation	Orange	Restoration	\$ 1,049,991
Coal Oil Point Reserve Coastal Access and Habitat Restoration: Phase 3	Santa Barbara	Restoration	\$ 416,395
Hanson Floodplain Restoration	Ventura	Restoration	\$ 4,191,889

2019 WRP Work Plan Projects

Project Name	County	Project Type	Total Cost
Loma Alta Slough Wetlands Enhancement Project - Phase 2 Implementation	San Diego	Planning	\$ 8,800,000
Los Angeles River Taylor Yard: Implementation Plan	Los Angeles	Planning	\$ 2,000,000
Los Cerritos Wetlands Complex: Bryant Acquisition Phase II	Los Angeles	Acquisition	\$ 4,900,000
Los Cerritos Wetlands: Restoration Program	Los Angeles	Planning	\$ 142,000,000
Los Penasquitos Lagoon Restoration: Design and Feasibility Study	San Diego	Planning	\$ 633,320
Matilija Dam Ecosystem Restoration Program: 65% design & permitting	Ventura	Planning	\$ 3,500,000
McGrath State Beach Wetlands Restoration and Campground Relocation	Ventura	Restoration	\$ 12,760,000
Newland Marsh Acquisition	Orange	Acquisition	\$ 2,400,000
Ormond Beach Wetlands Restoration Plan	Ventura	Planning	\$ 448,000

2019 WRP Work Plan Projects

Project Name	County	Project Type	Total Cost
Ormond Beach Wetlands: Sod Farm Acquisition Part 2	Ventura	Acquisition	\$ 62,800,000
Rio Hondo/Upper San Gabriel River Watershed Arundo Eradication Program	Los Angeles	Restoration	\$ 2,400,000
San Diego Bay Native Oyster Living Shoreline	San Diego	Research	\$ 1,271,028
San Diego Canyon Wetlands Restoration Project	San Diego	Planning	\$ 348,000
San Diego River Watershed Riparian Restoration Program	San Diego	Restoration	\$ 5,000,000
San Dieguito Watershed Invasive Species Control and Revegetation	San Diego	Restoration	\$ 4,766,000
San Joaquin Marsh Enhancement: Phase II Implementation	Orange	Restoration	\$ 2,000,000
San Jose Creek Fish Passage Project	Santa Barbara	Restoration	\$ 2,036,804
Santa Clara River Riparian Restoration and Community Engagement for the Santa Paula-to-Sespe Conservation Area	Ventura	Restoration	\$ 23,750,000

2019 WRP Work Plan Projects

Project Name	County	Project Type	Total Cost
Santa Margarita River Fish Passage Project	San Diego	Restoration	\$ 605,395
Tijuana Estuary Tidal Restoration Program II: Phase I design	San Diego	Planning	\$ 1,095,000
Topanga Lagoon Restoration Planning Phase 1	Los Angeles	Planning	\$ 664,810
Trabuco Creek Fish Passage Project at the Metrolink and I-5 Bridges	Orange	Planning	\$ 22,000,000
Trancas Creek Flood Control Channel Restoration Planning Project	Los Angeles	Planning	\$ 1,300,000
Trancas Creek Lagoon Restoration Planning Project	Los Angeles	Planning	\$ 910,000
Upper Devereux Slough Restoration Implementation	Santa Barbara	Restoration	\$ 15,000,000
Upper Los Angeles River Watershed Arundo Eradication Program	Los Angeles	Restoration	\$ 1,070,000
Upper Newport Bay and Alamitos Bay Living Shoreline Project	Orange, Los Angeles	Research	\$ 1,276,336
Total Cost:			\$ 345,999,353

2019 WRP CWRGP Projects

Project Name	Grantee	Acres	Grant Amount
Sespe Cienega Riparian Restoration Project on the Santa Clara River	Friends of the Santa Clara River	10	\$ 28,500
Torrance Henrietta Basin Wetland Recovery Project	City of Torrance	2	\$ 30,000
Santa Cruz Island Oak Riparian Enhancement Project	The Nature Conservancy	1.5	\$ 30,000
Batiquitos Lagoon Ecological Reserve North Shore Restoration - Phase 3	Batiquitos Lagoon Foundation	1	\$ 27,800
Huntington Beach Wetlands Salt Marsh Bird's Beak Outplanting	Huntington Beach Wetlands Conservancy	1	\$ 28,900
Restoring Audubon Starr Ranch Riparian Woodlands with Community Participation	Audubon Starr Ranch	NA	\$ 15,000
Newport Valley Riparian Restoration with Diverse Communities	Tides Center	1	\$ 22,500
Community Olympia Oyster Restoration in the Jack Dunster Marine Reserve	Orange County Coastkeeper	0.02	\$ 30,000
Refugio Creek Arundo Removal	South Coast Habitat Restoration	4	\$ 24,889
San Antonio Creek Restoration Project at Camp Comfort	The C.R.E.W.	2.4	\$ 27,600
Kalorama Wetland Restoration and Community Education Project	Multicultural Education for Resources Issues Threatening Oceans Foundation Inc.	1.75	\$ 34,601

2019 WRP CWRGP Projects

Ormond Beach Community Restoration Project	City of Oxnard	35	\$	30,000
Lower Ventura River Habitat Restoration	Ventura Land Trust	28.4	\$	19,600
Topanga Creek's Theater of Plants	Will Geer's Theatricum	1.16	\$	28,800
Rabbit Island Restoration and Education Initiative	Bolsa Chica Conservancy	2	\$	25,000
Sweetwater Stewards: Community River Restoration	Earth Discovery Institute	NA	\$	30,000
Sweetwater Marsh Community Wetlands Restoration Project (formerly: D Street Fill Restoration Project)	Living Coast Discovery Center	3	\$	30,000
Crown Point Bank Restoration at Kendall Frost Marsh Reserve	San Diego Audubon	0.3	\$	21,300
Whittier Channel Restoration	University of California, Santa Barbara	1.25	\$	29,924
Canada Larga Creek - Hayden Preserve Restoration	Ventura Hills Conservancy	NA	\$	20,700



To access the Regional Strategy 2018,
and associated maps and tools, visit
scwrp.databasin.org.

For inquiries and information on
the Wetlands Recovery Project, visit
scwrp.org.

