

Notice of Public Meeting San Diego River Conservancy

A public meeting of the Governing Board of
The San Diego River Conservancy
will be held Thursday,
November 10, 2016
2:00 pm – 4:00 pm

Meeting Location

County of San Diego Administration Center (CAC)
1600 Pacific Highway, Room 302
San Diego, California 92101

Tele-Conference Location

Natural Resources Agency 1416 Ninth Street, Room #1311 Sacramento, CA 95814	Department of Finance State Capitol, Room 1145 Sacramento, CA 95814
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Contact:
Julia Richards (619) 645-3188

Revised Meeting Agenda

The Board may take agenda items out of order to accommodate speakers and to maintain a quorum, unless noted as time specific.

1. Roll Call

2. Approval of Minutes (*ACTION*)

Consider approval of minutes for the September 8, 2016 meeting.

3. Public Comment (*INFORMATIONAL*)

Any person may address the Governing Board at this time regarding any matter within the Board's authority. Presentations will be limited to three minutes for individuals and five minutes for representatives of organizations. Submission of information in writing is encouraged. The Board is prohibited by law from taking any action on matters that are discussed that are not on the agenda; no

adverse conclusions should be drawn by the Board's not responding to such matters or public comments.

4. Chairperson's and Governing Board Members' Report (*INFORMATIONAL*)

Election of Officers, January 2017

5. Deputy Attorney General Report (*INFORMATIONAL/ACTION*)

6. Speaker Emeritus Toni G. Atkins (*INFORMATIONAL*)

7. San Diego Association of Government (*INFORMATIONAL*)

Status update on San Diego River Trail segments through Carlton Oaks Golf Course (City of Santee) and the Qualcomm stadium in the City of San Diego. Funding for this project is provided in part by the State Coastal Conservancy and the San Diego River Conservancy's Proposition 84 funds.

Presentation:

Stephan Vance, Senior Regional Planner

8. Round 2, Proposition 1 Grant program staff recommendations for funding (*ACTION*)

San Diego River Trash Removal and Water Quality Enhancements at Mast Park (City of Santee) (*ACTION*)

Applicant: City of Santee

Requested amount: \$686,900.00

Recommended amount: \$686,900.00

Score: 90.5/113

Recommendation: Approve SDRC Resolution 16-05

This project will provide an improved drainage system at the eastern border of Mast Park which creates a treatment system for polluted runoff via bioswales, retention basin, and remove trash and other contaminants from stormwater runoff before it reaches the San Diego River. The purposes of this project are consistent with Proposition 1 Grant funding. [California Water Bond, Proposition 1 (2014)]

Invasive Plant Removal and Habitat Restoration at the San Diego River Mouth / Estuary (City of San Diego) (*ACTION*)

Applicant: San Diego River Park Foundation

Requested amount: \$153,400.00

Recommended amount: \$153,400.00

Score: 89 /113

Recommendation: Approve SDRC Resolution 16-06

This project will remove invasive plants and restore habitat of approximately 3.4 acres within the San Diego River Estuary in compliance with the San Diego River Conservancy's watershed wide permits. The purposes of this project are consistent with Proposition 1 Grant funding. [California Water Bond, Proposition 1 (2014)]

Rueda Canyon Open Space Preserve Restoration and Water Conservation Strategy Project, Phase 2 (City of San Diego) (ACTION)

Applicant: San Diego Canyonlands

Requested amount: \$ 420,453.00

Recommended amount: \$ 420,453.00

Score: 87.5/116

Recommendation: Approve SDRC Resolution 16-07

This project represents Phase 2, northern Rueda Canyon Open Space Preserve and will remove invasive plants and restore habitat of approximately 3.95 acres of invasive, non-native vegetation. The project also includes components for reducing sediment runoff and filtering stormwater. The purposes of this project are consistent with Proposition 1 Grant funding. [California Water Bond, Proposition 1 (2014)]

9. Executive Officer's Report (INFORMATIONAL / ACTION)

The following topics may be included in the Executive Officer's Report. The Board may take action regarding any of them:

- San Diego River Discovery Center permits
- Strategic Plan Update
- Kumeyaay Diegiano Land Conservancy
- Final report for tanker rollover on Morena Boulevard
- Temescal Creek acquisition (SDRP Foundation)
- Legislative Report

10. Next Meeting

The next scheduled board meeting will be held Thursday, January 12, 2017, 2:00-4:00 p.m.

11. Adjournment

Accessibility

If you require a disability related modification or accommodation to attend or participate in this meeting, including auxiliary aids or services, please call Julia Richards at 619-645-3188 or Wendell Taper at 619-645-3183.

State of California
San Diego River Conservancy

Meeting of November 10, 2016

ITEM: 1

SUBJECT: ROLL CALL AND INTRODUCTIONS

State of California
San Diego River Conservancy

Meeting of November 10, 2016

ITEM: **2**

SUBJECT: **APPROVAL OF MINUTES (ACTION)**
The Board will consider adoption of the **September 8, 2016** public meeting minutes.

PURPOSE: The minutes of the Board Meeting are attached for review.

RECOMMENDATION: Approve minutes

SAN DIEGO RIVER CONSERVANCY

Minutes of September 8, 2016 Public Meeting

(Draft Minutes for Approval on November 10, 2016)

CONSERVANCY Board Chair, Ben Clay called the September 8, 2016 meeting of the San Diego River Conservancy to order at approximately 2:00 p.m.

Item 1. Roll Call

Members Present

Bryan Cash	Natural Resources Agency, Alternate Designee (via phone)
Ben Clay, Chair	Public at Large
John Donnelly	Wildlife Conservation Board
Karen Finn	Department of Finance (Via Phone)
Robin Greene	Department of Parks and Recreation
Ruth Hayward	Public at Large
Ann Haddad	Public at Large
Dianne Jacob	Supervisor, County of San Diego, Second District
Andrew Poat	Public at Large (arrived 2:07pm)
Scott Sherman	Councilmember, City of San Diego, District 7
Deanna Spehn	Speaker of the Assembly, Appointment (arrived 2:08pm)
Gary Strawn	San Diego Regional Water Quality Control Board

Absent

Brent Eidson	Mayor, City of San Diego, Designee
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Staff Members Present

Julia Richards	Executive Officer
Wendell Taper	Administrative Services Manager
Dustin Harrison	Environmental Scientist
Hayley Peterson	Deputy Attorney General

Item 2. Approval of Minutes

Ben Clay asked if there was a motion for approval of the minutes.

Dianne Jacob moved for approval of the minutes for the July 14, 2016, meeting and Ann Haddad seconded. Roll Call: (8-0-0), Ayes: Scott Sherman, Bryan Cash, Karen Finn, Robin Greene, Dianne Jacob, Ben Clay, Ruth Hayward, Ann Haddad.

Item 3. Public Comment *(INFORMATIONAL)*

Rob Hutsel introduced himself as President/CEO the San Diego River Park Foundation. He invited the board to the 15th anniversary celebration of the Foundation on September 22nd at the Town and Country Hotel. SDRPF acquired the 75 acre Temescal Creek gateway acquisition with Proposition 1 funding through the Conservancy. He appreciated SDRC's support.

Item 4. Chairperson's and Governing Board Members' Report *(INFORMATIONAL/ACTION)*

Ben Clay stated Peter McCracken will help the Conservancy's five year strategic plan.

Ruth Hayward added website is being updated by the IT Department at the Natural Resources Agency to bring similar format to other state agencies. Things are being transferred from old site to new site.

Ben Clay asked how much time will that take to update?

Julia Richards probably another month.

Ben Clay welcomed SDRC's newest Board member, Robin Greene from California Department of Parks and Recreation.

Item 5. Deputy Attorney's General Report

Nothing to report.

Item 6. Proposition 1 grant program update *(INFORMATION)*

Julia Richards updated the Board on Proposition 1, Round 1 from last year. SDRC has two grants that are close to being executed, they're being finalizing. Applicants are working on scopes of work from San Diego County trash collection project and the City of San Diego acquisition in El Monte Valley.

She summarized Round 2 proposals: 12 Concept Proposals were received and 11 were invited to submit full applications. SDRC provided comments to original Concept Proposals on August 17; full Applications due September 15 and site visits are scheduled for September and October. SDRC should have scored applications at the end of October with recommendations for Board approval in November through March.

Ben Clay had the privilege of going to the Serra Museum and talked with the San Diego History Center's Board Members. Ray Carpenter, has volunteered to help SDRC record video of some projects along the river.

Item 7. Flume Trail Extension Project *(INFORMATION)*

Jill Bankston Chief of Development, County of San Diego Department of Parks and Recreation, said the County has a wonderful partnership with San Diego River Conservancy and recently completed the Flume Trail Extension segment of the San Diego River Trail. This is a connection from El Monte Road to the existing trail that surrounds Lake Jennings. The trail is located on a new County easement acquired through partnership with Helix Water District (HWD). The trail sits behind the Helix Water District building. Part of the area is the HWD old pump station and operations yard. There is fencing that separates HWD yard and trailhead that directs users to the parking area and trail.

The trail designed required 12 switch backs to make it to the top of the site. Trail surfacing is decomposed granite and

the project installed small segments of lodge pole fencing at curves and corners. It is challenging but still traversable and the County was able to avoid and minimize impacts to the environment. Along the trail is native vegetation, coastal sage scrub and the impacted areas had hydro-seed and sprinkled San Diego sunflowers and potential habitat for California gnatcatcher and raptors. That total project for 0.8 miles of trail, trailhead and parking area was completed with a budget of \$325,000.

Trailhead parking area has several large trees which allows for shade. The kiosk is next to the fence that has information about local wildlife and a map of the trail. Interpretive panels that provide information on the Historic Flume which first brought water to the City of San Diego in the 1880's.

She thanked the Board Members and concluded this project was made possible by a Proposition 40 grant from the Natural Resources Agency (approximately \$250,000). Other funding made possible by the San Diego Foundation, Hervey Family Fund, San Diego River Conservancy, Helix Water District and the County of San Diego Department of Parks and Recreation.

Item 8. San Diego County Trans County Trail (INFORMATIONAL / ACTION)

Lorrie Bradley introduced herself as County Trails Program for County of San Diego Department of Parks and Recreation. The purpose of the Trans County Trail project is to develop a 114 mile regional trail that traverses Torrey Pines State Beach and Anzo Borrego State Park. The Trail is book-ended by those two state facilities. The project is a multi-agency multi-jurisdictional regional trail project. Five agencies representing local, state, and federal jurisdictions have all partnered together to make this project happen. A 1996 Memorandum of Understanding consist of the County of San Diego, the City of San Diego and Poway, California State Parks and United States Forest Service. The goal of this project is to use existing trails on public lands as much as possible. The proposed trail alignment goes through eleven publicly owned open space parks and reserves. Two in the City of San Diego, one in the City of Poway, as well as trail easements across private property, four facilities in the County, three State Park units and the Cleveland National Forest.

How does the County's Trans County Trail fit into the County's Regional Trail Plan? It will be one of nine regional trails within San Diego County which connects to California Coastal Trail to Juan Bautista de Anza Trail. It also incorporates segments of other regional trails into the overall trail alignment.

Ben Clay noted these trails run east west. Will any other river valleys, like the San Diego River be used for doing most of this? He asked if it will connect north south.

Lorrie Bradley the San Diego River Trail will connect the Trans County Trail up near Three Sisters Falls and the Forest Service is planning a new new trailhead. The goal is to have the trail connect north south.

In addition to the five agency partners, stakeholders have been engaged including friends groups, trail user groups, transportation agencies, environmental groups and members of the public. A working group was formed to identify the trail alignment using the existing trails and facilities within the various jurisdictions, develop volunteer base to support the trail project draft proposed implementation mechanisms, such as ordinances and other documents and identify other opportunities for implementation and maintenance.

The planning committee undertook a series of assessments to refine the trail alignment based on ground truthing to ensure constructability and sustainability of new trust segments that needed to be constructed. Next steps continue to move east with trail assessments, research funding opportunities to acquire trail easements, complete environmental assessment analysis/CEQA and construction of the trail.

Ben Clay asked if the County will you make sure equestrians have trail access?

Lorrie Bradley responded yes, this trail is multi-use. The County has challenges on some segments with mountain bikes, but I believe the entire trail is equestrian-oriented. All non-motorized.

Ruth Hayward asked where does the Trans County Trail intersect the San Diego River Trail?

Lorrie Bradley referred to Rob Hutsel.

Rob Hutsel said right now the Trans County Trail comes up from San Vicente Reservoir. The San Diego River Park Foundation is still working on an alignment up to El Cajon Mountain. The trail will cut across to West Hills Truck Trail toward four corners. The San Diego River Trail will follow the river around the Reservation lands, come up El Cajon Mountain and join those two trails together to Cedar Creek Falls area. There's a southerly route which is shown in red there which would take you over to the Three Sisters Waterfall and work its way up to Lake Cuyamaca. That route is not secured yet. The secondary route the San Diego River Park Foundation has been working to bring the trail up Eagle Peak Road and cross over to the William Heise County Park. Those two efforts are moving forward at the same time.

Andrew Poat asked once it is acquired, who owns that?

Rob Hutsel responded the San Diego River Park Foundation is not in position for long term maintenance. Ideally it's transferred to a public agency. It can be a County easement which shares management. Long term, ideally the Foundation would have a pot of money for the trail.

Dianne Jacob hopefully in the not too distant future another trail alignment HWY 67 and Iron Mountain Staging area. From Lake Poway a trail over or under 67 and that would follow to Dos Picos Park in Ramona. That would provide a south connection which is badly needed. The County purchased on the east side of 67 where staging area is 175 acres. There are willing property owners willing to purchase 800 acres to open opportunities. Across 67 is a challenge, but Caltrans is cooperative. The City of Poway has approved agreement with County to do joint effort. It's exciting, but there is a need for more north south connections.

Item 9. Ecological Limits of Hydrologic Alteration (ELOHA) (INFORMATIONAL / ACTION)

Eric Stein introduced himself as Southern California Coastal Water Research Project (SCCWRP). The results of a case study project recently completed by SCCWRP in San Diego River Watershed is part of larger regional study SCCWRP has been working with State/ Regional Water Boards to understand how to manage flows in rivers and creeks in a way that's conducive to long term biological health. All the competing demands on water and flow in creeks how to decide what are the right types of flow properties to make sure instream biological resources are being protected.

This is a valuable demonstration project where tools and approaches were developing in the region and applied to specific locations and specific questions. It's not real until they're applied and this has been a valuable partnership.

The ultimate premise of this work was funded through Prop 84. Hydrology is a primary driver of instream health; so to understand how changes in hydrology affect instream health and how to better manage those hydrologic patterns. This is important for management purposes but also because regulatory programs are shifting towards biological endpoints in programs. SCCWRP is trying to understand a graph in a change of flow and how it relates to change in biology. SCCWRP wants to manage the flow so the biology doesn't reach a detrimental threshold.

Of all the different things that comprise flow, what are the key elements to measure? Some of the considerations affect biology, but also amenable to management and not redundant, but comprehensive. SCCWRP went through six hydrologic variables and targets by leveraging large regional datasets. Many monitoring sites allow the generation of relationships. Through the case study, tools were applied to map the San Diego River Watershed through a biological perspective.

Recently, he was at a meeting with the Department of Fish and Wildlife on the Climate Alliance who is starting to scope out an effort to impose climate change forecasting and future rainfall patterns.

Ben Clay asked, what's the length of history you applied?

Eric Stein responded that is answered in three parts. One is long term rainfall record, 30 plus years of data. From the modeling perspective SCCWRP models a set of wet years, dry years, and average years and asks which flow metric is critical period; looking at both sides to decide critical factors.

From a management perspective, setting up a matrix based on poor hydrology and good hydrology, will create prioritized management. For example, good biology and good hydrology, management should preserve and monitor them, whereas areas that have poor hydrology and poor biology management should focus on flow management.

Ben Clay asked if removal of invasive plants helped with management.

Eric Stein responded SCCWRP didn't include changes in evaporative loss (ET) associated with invasive. Removing *Arundo* or tamarisk, those plants with high ET can help return base flows to something more natural so it is helpful and good for habitat and hydrology. The exercise allows applies tools to specific watersheds and answers questions of where to prioritize management actions. The data, particularly lower watershed indicates when water quality is an issue and when flows are an issue. A part of this project is discerning if biology is more affected by flow problems or chemistry problems.

SCCWRP examined specific case studies and identified proposed management actions to project how that action might affect the flow in a way that is influential to biology as it gets to the targets. One case study was stormwater control in Alvarado Creek. Implementing low impact development Stormwater capture procedures that are part of the Municipal Stormwater (MS4) program. The blue which is current level of 50% impervious cover and by putting enough stormwater capture devices to get effective imperviousness down to 2%, which is more a natural level, the hydrograph changes. Importantly, this key graphic for metrics, anything in green, indicates managing for protection and meeting biological targets. If we capture the 85% percentile of rain which is the current requirement, then we do well. Disconnecting imperviousness through low impact development to get down to 2-5% imperviousness.

Ben Clay inquired if big parking lots should be managed to absorb water rather than have it runoff? Alvarado Creek had some flooding so SDRC provided funding for invasive removal and all that will do is increase flow of water through there.

Eric Stein responded correct. Capturing almost all runoff and not allowing discharge to creek during storm flow will knock that peak runoff to something more natural. Through retention facility or storage and hopefully reuse for irrigation purposes. Hardening of channels is not conducive to biological health. Managers are trying to control land surface and have surrounding catchments do more work.

Draft report is out with more details of these findings. SCCWRP does regional and statewide analyses, he emphasized local partnerships and demonstrations are important because the helps with educating others. This study with local partners caused review of regional analyses and revisiting for improved regional product.

Ruth Hayward asked what causes the San Diego River Gorge to go from good biology to intermediate from 2016 to 2050? Is development a factor?

Eric Stein noted San Diego County's General Plan GIS layer looks at the 2050 projections. By imposing land use changes in the surrounding areas that drain to that area, it will be reflected by more runoff.

Andrew Poat asked what is the point of greatest water flow on the river and what is the point of the least.

Gary Strawn responded San Diego Regional Water Quality Control Board has projects trying to reduce flow on site and recycle water. All that will affect flows in lower streams. Changes are coming with unknown negative impacts.

These models that Dr. Stein is building will help. To the extent of reduced flows, maybe it dries up some of the river flows. It may make some people upset, but if that's the natural regime and it's going to help the City reduce cost of removing plants that cause flooding.

Observe the San Diego River in two sections: one above the dam and one below. Looking at a big winter flow, it's all coming down Forrester Creek; the highest part of the bank is near Highway 52. Half a mile on the main stem which comes down El Monte Valley, near Walker Preserve, there are four pipes. Once in the last 15 years has the water crested over that. The lower San Diego River flows through those pipes. It's not much compared to Forrester, Sycamore, or Alvarado Creek. This model allows one to look at the value of removing concrete that lines the stream or clearing out invasive plants and measuring that against biological factors, which indicate stream health.

The Padre Dam case study is looking at advanced treatment from discharging more than permitted. Purple pipe water cannot be sold in the winter. It can be used, but there will be times when flows exceed what they can manage. Using this model, it tells us scientifically when to discharge. U.S. Geological Service website has two monitoring sites: Fashion Valley and West Hills Parkway. They model flows.

Ben Clay asked does capturing purple pipe water and putting into reservoirs does, that alter biology?

Eric Stein responded one of the motivations of doing this is to answer those regional types of questions. Looking at it through lenses of biology, how does it match flow patterns that promote healthy biology? Seasonal duration and time of year are all important.

Rob Hutsel added he has concerns for the health and future of the river. As spigots are turned off for water conservation, which the river has become dependent on once the river is dammed, the river dies. Re-engineering Mission Valley so it's in a flood control channel, salt water is intruding into groundwater as sea level rises. These are very complex issues modeling for hydrology.

Ben Clay so cut back runoff, starve the River; permeate the ground upstream, does that curtail groundwater flows into River?

Eric Stein in a general sense, the more infiltration, the more water incrementally seeps into the river during the dry season to maintain base flows. For southern California, many rivers are dry during the year. He agreed with Rob, that a decision needs to be made as to how to manage the river. These were historically dryer systems which supported a different type of biology under that flow regime. Thriving biological communities have become adapted to artificial discharge.

Andrew Poat appreciated Dr. Stein's comments. He said the rate of water has a tremendous effect on sustainability of fish and other systems. It would be interesting to understand more about flows and impacts to biology over time.

Ben Clay thanked Dr. Eric Stein.

Item 10. Executive Officer's Report (*INFORMATIONAL / ACTION*)

The following topics may be included in the Executive Officer's Report. The Board may take action regarding any of them:

Julia Richards thanked Ben. She discussed a Proposition 1 grant with San Diego State University Research Foundation (SDSURF) for invasive removal. There were issues with coordination because the San Diego State University (University) is thinking about dredging in the existing project area. So SDRC and SDSURF are moving forward with an amendment to exclude the possible dredging area which will reduce grant by approximately \$50,000.

She met with Gina Fromer, California State Director, Trust for Public Land. They visited and toured the Walker Preserve Section of the San Diego River Trail and discussed San Diego River Park from Ocean Beach to El Capitan

and Julian. Trust for Public Land mission is that everyone should live within a 10 minute walk to a park. SDRC provided maps showing the San Diego River Trail and how close the disadvantaged communities were to the trail.

Department of General Services Contracted Fiscal Services (DGS-CFS) was not able to meet end of year requirement for fiscal year 15-16. DGS-CFS said they are wrapping up in the next 30 days to provide year end information to Natural Resource Agencies, State Controllers Officers and Department of Finance.

Ben Clay asked if Bryan Cash can help.

Bryan Cash answered Julia is aware of what is going on. The budget process is confidential, but the State is working to make sure conservancies receive customer service they deserve and at the rate they deserve.

Ben Clay noted that because of the slowness of the Department, bills are getting paid late which is a problem for small vendors working with SDRC. It is critical importance to make response quicker.

Julia Richards provided the last item, an aerial video of the Flume Trail Extension <https://vimeo.com/185364625>

Ben Clay responded this video would be a great idea to for the report to Sacramento. He thanked Helix Water District and looks forward to future endeavors. Next meeting November 10th here. Meeting adjourned.

Meeting adjourned at 3:25 pm

State of California
San Diego River Conservancy

Meeting of November 10, 2016

ITEM: **3**

SUBJECT: **PUBLIC COMMENT**

PURPOSE: Any person may address the Governing Board at this time regarding any matter within the Board's authority. Presentations will be limited to three minutes for individuals and five minutes for representatives of organizations. Submission of information in writing is encouraged. The Board is prohibited by law from taking any action on matters that are discussed that are not on the agenda; no adverse conclusions should be drawn by the Board's not responding to such matters or public comments.

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San Diego River Conservancy

Meeting of November 10, 2016

ITEM: 4

SUBJECT: **CHAIRPERSON'S AND GOVERNING BOARD
MEMBERS' REPORTS (*INFORMATIONAL*)**

- Election of Officers

PURPOSE: These items are for Board discussion only and the Board will take no formal action.

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ITEM: 5

SUBJECT: **DEPUTY ATTORNEY GENERAL REPORT
(INFORMATIONAL/ACTION)**

State of California
San Diego River Conservancy

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ITEM: 6

SUBJECT: **SPEAKER EMERITUS TONI G. ATKINS**
(INFORMATIONAL)

State of California
San Diego River Conservancy

Meeting of November 10, 2016

ITEM: 7

SUBJECT: **SAN DIEGO ASSOCIATION OF GOVERNMENTS
(INFORMATIONAL)**

Status update on San Diego River Trail segments through Carlton Oaks Golf Course (City of Santee) and the Qualcomm stadium in the City of San Diego. Funding for this project is provided in part by the State Coastal Conservancy and the San Diego River Conservancy's Proposition 84 funds.

Presentation:
Stephan Vance, Senior Regional Planner

Meeting of November 10, 2016

ITEM: **8**

SUBJECT: **ROUND 2, PROPOSITION 1 GRANT PROGRAM STAFF
RECOMMENDATIONS FOR FUNDING (ACTION)**

Recommendation #1

**San Diego River Trash Removal and Water Quality
Enhancements at Mast Park located in the City of Santee
(ACTION)**

Applicant: City of Santee

Requested amount: \$686,900.00

Recommended amount: \$686,900.00

Score: 90.5/113

Recommendation: Approve SDRC Resolution 16-05

Presentation:

Bill Maertz, Director of Community Services, City of Santee

Carl Schmitz, P.E., Principal Civil Engineer, City of Santee

This project will provide an improved drainage system at the eastern border of Mast Park and creates a treatment system for polluted runoff via bioswales, retention basin, and remove trash and other contaminants from stormwater runoff before it reaches the San Diego River.

Recommendation #2

Invasive Plant Removal and Habitat Restoration at the San Diego River Mouth / Estuary located in the City of San Diego (ACTION)

Applicant: San Diego River Park Foundation
Requested amount: \$153,400.00
Recommended amount: \$153,400.00
Score: 89 /113

Recommendation: Approve SDRC Resolution 16-06

Presentation:

Sarah Hutmacher, Associate Director, San Diego River Park Foundation

This project will remove invasive non- native plants and restore habitat of approximately 3.4 acres within the San Diego River Estuary.

Recommendation #3

Rueda Canyon Open Space Preserve Restoration and Water Conservation Strategy Project (Phase 2) located in the City of San Diego (ACTION)

Applicant: San Diego Canyonlands
Requested amount: \$420,453.00
Recommended amount: \$420,453.00
Score: 87.5/116

Recommendation: Approve SDRC Resolution 16-07

Presentation:

Eric Bowlby, Executive Director, San Diego Canyonlands

This project in southern Rueda Canyon Open Space Preserve will remove invasive non-native vegetation and restore habitat on approximately 3.95 restoration including components for reducing sediment runoff and filtering stormwater. This project also includes growing native plants in conjunction with school classrooms.

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Staff Recommendation
SDRC Resolution 16-05
November 10, 2016

PROPOSITION 1 GRANT

RECOMMENDED ACTION: Authorization to provide up to \$686,900.00 to the City of Santee for stormwater treatment and trash removal system, at Mast Park.

LOCATION: The proposed project is in the San Diego River watershed area in the City of Santee, County of San Diego.

RESOLUTION AND FINDINGS: Staff recommends that the San Diego River Conservancy adopt the following resolution pursuant to the San Diego River Conservancy Act (Public Resources Code, § 32630 et seq.):

“The San Diego River Conservancy hereby authorizes the disbursement of up to \$686,900.00 to implement projects focused on improving the water quality, water supply, ecosystem, watershed protection and restoration specifically as follows:

- The City of Santee: Six hundred eighty six thousand nine hundred dollars to create treatment system for polluted runoff via bioswales/retention basin and remove contaminants in stormwater runoff.

Prior to the disbursement of funds, each grantee shall submit for the review and written approval of the Executive Officer of the Conservancy a scope of work, budget and schedule, and the names and qualifications of any contractors to be employed in carrying out the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the San Diego River Conservancy hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines for the Conservancy’s Proposition 1 grant program.
2. The proposed authorization is consistent with the purposes and objectives of Division 22.9 of the Public Resources Code, Chapter 3, and Section 32649. (San Diego River Conservancy Act)

PROJECT SUMMARY: In August 2015, the Conservancy solicited project proposals aimed at increasing water supply and improving water quality. This solicitation was posted on the Conservancy and Natural Resource Agency’s Bond Accountability website and emailed to multiple organizations in California. The recommended grant would fund the proposal, as described below:

The City of Santee (City) will construct a stormwater treatment and trash removal system in

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conjunction with a \$7.2 million re-development project at Mast Park, located along the San Diego River.

The treatment system would include a low-flow bypass or diverter that would intercept stormwater flows from 476 acres of upland area (304 acres of open space and 172 acres of urban development). The low-flow diverter would redirect runoff generated by small to moderate rain events to a meandering, 1,200-foot-long engineered bioswale running north-to-south along the park's eastern boundary. The swale will contain pockets of depressions to provide additional water storage and promote infiltration before water reaches the San Diego River.

Existing storm drain structures located underground and parallel to the bioswale would remain in place to handle high-volume runoff from extreme storm events. The existing system consists of twin sets of 60-inch reinforced concrete pipes that transition to dual 8'-by-6-foot reinforced concrete pipes. Upstream from the diverter, the City will install a structural device designed to trap and retain trash, sediment and other debris transported by stormwater.

The trash removal system includes two Continuous Deflective Separation (CDS) model, hydrodynamic separators. These devices use swirl concentration and continuous deflective separation to screen, separate and trap trash, debris, sediment, and hydrocarbons from stormwater runoff. CDS separators capture and retain 100% of floatables and neutrally buoyant debris 2.4mm or larger. The City will install an interpretive sign to educate the public about project benefits and how pollutants affect the riverine habitat.

SITE DESCRIPTION: Mast Park is located east of Carlton Hills Boulevard and south of Carlton Oaks Drive, bounded by residential development to the north and east. Stormwater discharge builds up from existing drainage, and as a consequence results in sediment erosion.

PROJECT HISTORY/NEED: From a water-quality perspective, the project is needed to treat polluted runoff coming from an urban area that drains into Mast Park. Untreated urban runoff flowing unabated into the park results in erosion and transports pollutants to the San Diego River. The Santee stretch of the San Diego River has been listed by the Region 9 Water Quality Control Board as "impaired" due to low dissolved oxygen, bacteria, phosphorous and total dissolved solids. This project will provide incremental remediation of this impairment. The project will reduce trash and water-borne pollutants carried by stormwater that currently flows untreated into a reach of the San Diego River that has been identified as a "hot spot" for nitrates and bacteria. The Water Quality Improvement Plan developed by the San Diego region's stormwater permit co-permittees has identified bacteria as the highest priority water quality impairment for the San Diego River.

These improvements will lessen impacts from hydro-modification by dissipating high velocity flows and reducing scour and erosion. Also, stormwater that would otherwise flow directly into the river will be absorbed into the ground and recharge the Santee-EI Monte Basin Aquifer.

PROJECT FINANCING: The total project amount is anticipated to cost \$1,024,860.00. Project applicant is requesting \$686,900.00 (67%) funding from the Conservancy. The anticipated source of Conservancy funds for this project is an appropriation from Proposition 1 grant funds, for Ecosystem, Watershed Protection and Restoration.

SAN DIEGO RIVER CONSERVANCY

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION: This project would be undertaken consistent with the Conservancy's enabling legislation (Public Resources Code, §§ 32630-32661).

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S): Consistent with Program 4, enhance water quality and natural flood conveyance, of the Conservancy's Strategic Plan Update 2012-2017, the proposed authorization will implement natural treatment to improve San Diego River water quality.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES: The proposed project is consistent with the Conservancy's current Project Selection Criteria and Guidelines, last updated on May 2015, in the following respects:

REQUIRED CRITERIA

- 1) The project is within the jurisdiction of the San Diego River Conservancy (San Diego watershed). Yes. The project is within the watershed.
- 2) The extent to which the project has support from the jurisdiction over the location of the project. Yes. The Santee City Council approved a resolution in support of the project.
- 3) The extent to which the project achieves one or more of the purposes of Proposition 1, Chapter 6, section 79732 subsection a (1-13).

Purpose 1 – The project will achieve this by removing trash and water borne pollutants that would otherwise flow into the San Diego River. This will protect beneficial uses of the San Diego River, including fishing, sightseeing and other recreational uses. Trash is a threat to water quality and can hinder recreational and commercial activities.

Purpose 2 – Planting a one- to two-acre riparian buffer adjacent to the river will “restore a river parkway” pursuant to the California River Parkways Act of 2004 and urban river greenways” by improving public access, restoring wildlife habitat and decreasing polluted stormwater draining into the San Diego River.

Purpose 4 – The project will achieve this by removing pollutants, including trash that would otherwise negatively impact the San Diego River. Improving water quality will support the river's use by migratory waterfowl and enhance the habitat used by the federally protected least Bell's vireo, which has been documented in this area of the river. The San Diego River is an important wildlife corridor. Trash poses a threat to birds, reptiles and other animals that can become entangled in plastic or mistakenly ingest debris, such as cigarette butts, for food. In addition, food wrappers and containers may introduce bacteria, nutrients and increased oxygen demand, all of which can negatively impact the river's ecosystem.

Purpose 9 – The project will achieve this by removing trash and water borne pollutants.

Purpose 10 – The project will achieve this by removing trash and water borne pollutants.

Purpose 11 – The project will achieve this by removing trash and water borne pollutants.

Purpose 12 – By reducing trash and water borne pollutants, the project will improve the health of the San Diego River watershed, which provides habitat for several sensitive or endangered species, including the least Bell's vireo (*Polioptila californica*), Southwestern willow flycatcher (*Empidanax traillii extimus*) and arroyo toad (*Bufo californicus*).

SAN DIEGO RIVER CONSERVANCY

- 4) The extent to which the application includes a complete, reasonable and well thought out proposed scope of work, budget and schedule.

This project has been evaluated by city engineers and a consultant design team from Rick Engineering Co. that included civil engineers, landscape architects and geotechnical engineers. Rick Engineering submitted to the city a 15-page analysis of an initial project design that became the foundation for the one described in this grant application.

The project can be completed within the submitted budget and completed concurrently with the proposed Mast Park Improvement project to not only save time, but overall cost of project administration and construction.

Progress towards meeting goals and objectives of this project will be measured by completion of each phase of the project, and will include a certification process for the installation of all water quality treatment devices/features. This certification process ensures that the features/devices are engineered and designed appropriately, installed per specification, and that the features will continue to function as intended with routine maintenance.

The city will review existing monitoring data and compare with post- project monitoring data to determine and evaluate overall project effectiveness. Upon project completion, the city will include the outfall site in dry and wet weather monitoring. Visual monitoring will be performed quarterly. During maintenance of the hydrodynamic separator, the city will document the debris type and the weight and volume of material removed.

- 5) The extent to which the project promotes and implements state and/or regional plans and policies.
- A. California Water Action Plan (CWAP)
 - i. Implement Actions 2, 4, and 9 of the CWAP.
 - B. Water Quality Control Plan for the San Diego Basin
 - i. Implement measures to restore and enhance recreational, water supply, and habitat-related beneficial uses. The Basin Plan contains an implementation program describing the actions by the Regional Board and others that are necessary to achieve and maintain the designated beneficial uses and water quality objectives of the region's waters. Policy 3 of the Basin Plan states that "point sources and nonpoint sources of pollution shall be controlled to protect designated beneficial uses of water."
 - C. Water Quality Control Plan for the Ocean Waters of California (California Ocean Plan)
 - i. Control Trans and Part 1, Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California, as amended in 2015 by the State Water Resources Control Board and subsequently approved by the U.S. Environmental Protection Agency in January 2016.
 - D. MS4 Regional Stormwater Permit
 - i. Region 9 San Diego Regional Water Quality Control Board: enhance efforts to eliminate the discharge of pollutants (trash) from the municipal separate

SAN DIEGO RIVER CONSERVANCY

stormwater system. In its Feb. 11, 2015 Amended Order No R9-2015-0100, the Region 9 Board said: "Retrofitting areas of existing development with stormwater pollutant control and hydro-modification management BMPs is necessary to address stormwater discharges from existing development that may cause or contribute to a condition of pollution or a violation of water quality standards."

E. San Diego River Park Master Plan

- i. "Expand riparian habitat and improve water quality through the increased duration of water contact with soil and vegetation" (SDR Master Plan, Page 34)
- ii. "Reduce/remove non-point source loads, including litter and solid waste." (SDR Master Plan Page 39)

F. San Diego River Park Conceptual Plan (2002)

- i. Vegetative swales (page 74)
- ii. infiltration zones (page 73);
- iii. stormwater treatment (page 77)

6) The extent to which the project employs new or innovative technology or practices.

The City of Santee's project proposes construction of a 1,200-foot-long vegetated bioswale along the eastern boundary of Mast Park in conjunction with a low-flow bypass system located upstream from the park that would intercept stormwater flows from 476 acres of upland area.

The trash removal system includes two Continuous Deflective Separation (CDS) model, hydrodynamic separators manufactured by Contech Solutions. These devices use swirl concentration and continuous deflective separation to screen, separate and trap trash, debris, sediment, and hydrocarbons from stormwater runoff. CDS separators capture and retain 100% of floatables and neutrally buoyant debris 2.4mm or larger. They also remove sediment and are the only non-blocking screening technology available in a stormwater treatment device.

This project is an example of Low Impact Development (LID), designed to work with nature to manage stormwater as close to its source as possible. The basic principal of LID is to preserve and re-create natural landscape features and reduce impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product. This technology is also known as "green infrastructure," which is defined as: "The interconnected network of open spaces and natural areas, such as greenways, wetlands, parks, forest preserves and native plant vegetation, that naturally manages stormwater, reduces flooding risk and improves water quality."

A bioswale is a low-gradient, open channel planted with vegetation that collects surface runoff. The bioswale decreases the speed of flows, acts as a stormwater detention facility, and allows suspended solids to settle out. Vegetation filters particulates and their associated pollutants as runoff passes slowly and evenly through the channel. The pollutants are absorbed into the soil where they can be immobilized or decomposed by plants and microbes. The bioswale is a creative means of controlling urban runoff, and has the potential to improve water quality, mitigate wetland loss, provide flood containment, and improve the aesthetics of the project site.

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- 7) The extent to which the applicant demonstrates a clear and reasonable method for measuring and reporting the effectiveness of the project.

To determine the effectiveness of the project, the city will compare post-project monitoring results with historical water quality data gathered from previous dry and wet season monitoring along the San Diego River.

The sampling protocol the city intends to follow:

The Mast Park project aims to minimize the amount of trash, sediment, and other stormwater pollutants entering the San Diego River by installing two hydrodynamic separators and a 1,200-foot bioswale. To measure the effectiveness of the hydrodynamic separators, the debris type and amount collected from the hydrodynamic separator during maintenance will be recorded. The city will approximate the relative percent of trash versus sediment from the material collected and calculate the average amount of debris removed per acre. This information will aid the city in the design of similar projects.

The effectiveness of the bioswale will be determined by collecting water samples from at least two storm even from the inlet and outlet of the bioswale. Samples will be analyzed for Enterococcus bacteria, total and fecal coliform bacteria, total nitrogen, Total Kjeldahl Nitrogen, nitrates/ nitrites, phosphorus, and total suspended solids. The city will also record the pH, temperature, and conductivity at the sample sites.

If feasible, manual flow measurements will be taken during wet weather monitoring to assist in determining pollutant loads. The city will consider installing an automatic flow meter at the bioswale inlet to monitor dry and wet weather flows. To ensure accurate flow measurements, data will be collected from a uniform segment of the swale.

Gathering samples from the outlet to the San Diego River will require storms that generate at least a half-inch of rainfall. Data collected from wet weather sampling may be supplemented with modeling. Continuous hydrologic simulation analysis, or modeling, is a powerful tool to quantify peak flow, runoff volume, and pollutant load reduction since the same rainfall data can be used for the pre-construction and post-construction assessment.

The city will perform visual observations of the bioswale outlet at least twice after project completion to assess dry weather flows and the volume of trash. If dry weather flows are observed, samples will be collected from the swale's inlet and outlet for the constituents previously mentioned in this section.

Additionally, a monitoring plan and a Quality Assurance Project Plan will be developed prior to commencing monitoring.

Stormwater sampling will occur at least twice after project construction. With construction expected to finish by August 2018, only two storm events of sufficient rainfall are likely to occur before the final invoice is due in late 2018. Manual or automatic composite sampling will be used and hand held water quality meters will be used for field parameter testing. The hydrodynamic separator will be maintained and evaluated quarterly, or at the required maintenance frequency.

SAN DIEGO RIVER CONSERVANCY

Water quality data will be shared with the public. Standard protocols will be followed. Project information, including digital and paper files, will be retained by the City of Santee Stormwater Program. Monitoring data and reports can be made available to the public at City Hall and the city's website. Data will also be made available through the California Environmental Data Exchange Network (CEDEN) and the International Stormwater BMP Database.

Data collected from monitoring will be correlated to land uses. The city will employ the California Rapid Assessment Method (CRAM) to assess impacts to water quality before and after the project. CRAM provides a rapid, standardized, and scientifically defensible assessment of the status of an area prior to its restoration. This CRAM will be conducted by trained practitioners. As part of this assessment, a variety of landscape context, hydrology, and structure attributes and associated metrics will be assessed. Results of this assessment will be used for later comparison with post-restoration CRAM scores to determine how functions and services were replaced by the restoration effort.

8) The extent to which the project provides multiple benefits.

Not only will this project remove trash and debris from the storm drain system before it discharges to the San Diego River, but it will also provide treatment for water quality via the installation of bioswale filtration. The dry vegetated creek beds will have the dual benefit of improving water quality while providing a new opportunity for children to play in the outdoors without any devices or equipment- just dirt and rocks and plants. The design adds a new feature aimed at increasing human activity while reinforcing Mast Park's value as a place where people can experience nature. Recent research by Robin Moore at North Carolina University shows that this type of unstructured play fosters creativity and enhanced problem-solving skills among children.

The project also includes interpretive signs that will add to the general public's understanding of Low Impact Development, bioswales and the dynamics of how pollutants are transported to the San Diego River.

9) Whether the project reflects best available science.

The project implements best available science first by being identified and designed by a highly qualified design team and using modern technology to divert stormwater through a tested and proven treatment device manufactured by a firm having over 20 years of experience in stormwater management facilities. The treated water will then pass through a bio-filtration swale system which has been designed using engineered filtration media and landscape plantings that can be sustained.

Bio-swales are recommended by the US Environmental Protection Agency as Best Management Practices (BMPs) to remove pollutants and improve water quality.

Typical stormwater pollutants such as Total Suspended Solids (TSS), copper and phosphorous are removed at a rate that is based on how long the runoff is captured and held within the bioswale or retention basin.

10) The extent to which the applicant demonstrates experience successfully implementing similar projects or demonstrates appropriate and necessary partnerships to complete the project.

SAN DIEGO RIVER CONSERVANCY

The City of Santee has over 15 years of experience in past projects in the design and implementation of stormwater quality features in city facilities and stand-alone projects. In 2007 the city completed the \$20 million Forester Creek Improvement Project, which widened and re-vegetated the flood control channel and the adjacent public right-of-way with native plants and wetland vegetation. To prevent and reduce trash from entering the newly re-vegetated channel, the city installed a trash rack across the channel to reduce water-borne debris carried downstream from El Cajon.

In 2006 the City completed the Woodglen Vista Creek Improvement project, a \$3 million realignment and widening of the Woodglen Vista Creek Channel from Mast Boulevard to its connection to the San Diego River. Native plants and wetland vegetation were installed to restore the creek to a natural condition.

In 2010 the city completed the Town Center Community Park, a \$35 million, 70- acre project that included installation of multiple stormwater treatment devices. Two separate storm drain systems were installed. One captures runoff from the hardscape in the sports complex (Santee Sportsplex USA), which is treated through a Fabco treatment chamber that separates oil and debris. It also contains cartridge filters to remove bacteria from stormwater. Bioswales were installed along the perimeter of the Woodglen Vista Creek channel. Trash racks were installed in the storm drain inlets to prevent debris from being discharged to the Woodglen Vista Creek Channel.

Santee's Development Services Department reviews and monitors numerous residential, commercial and industrial projects annually to ensure stormwater BMP are integrated during project design and maintained through private contracts or by the city's Public Services Division.

The city has partnered with Padre Dam Municipal Water District, the Santee School District, Caltrans, the East County YMCA, Santee Chamber of Commerce, Sportsplex USA and other businesses to promote water quality via education on stormwater requirements and the proper operation and maintenance of these facilities

11) The project is not located in a disadvantaged community.

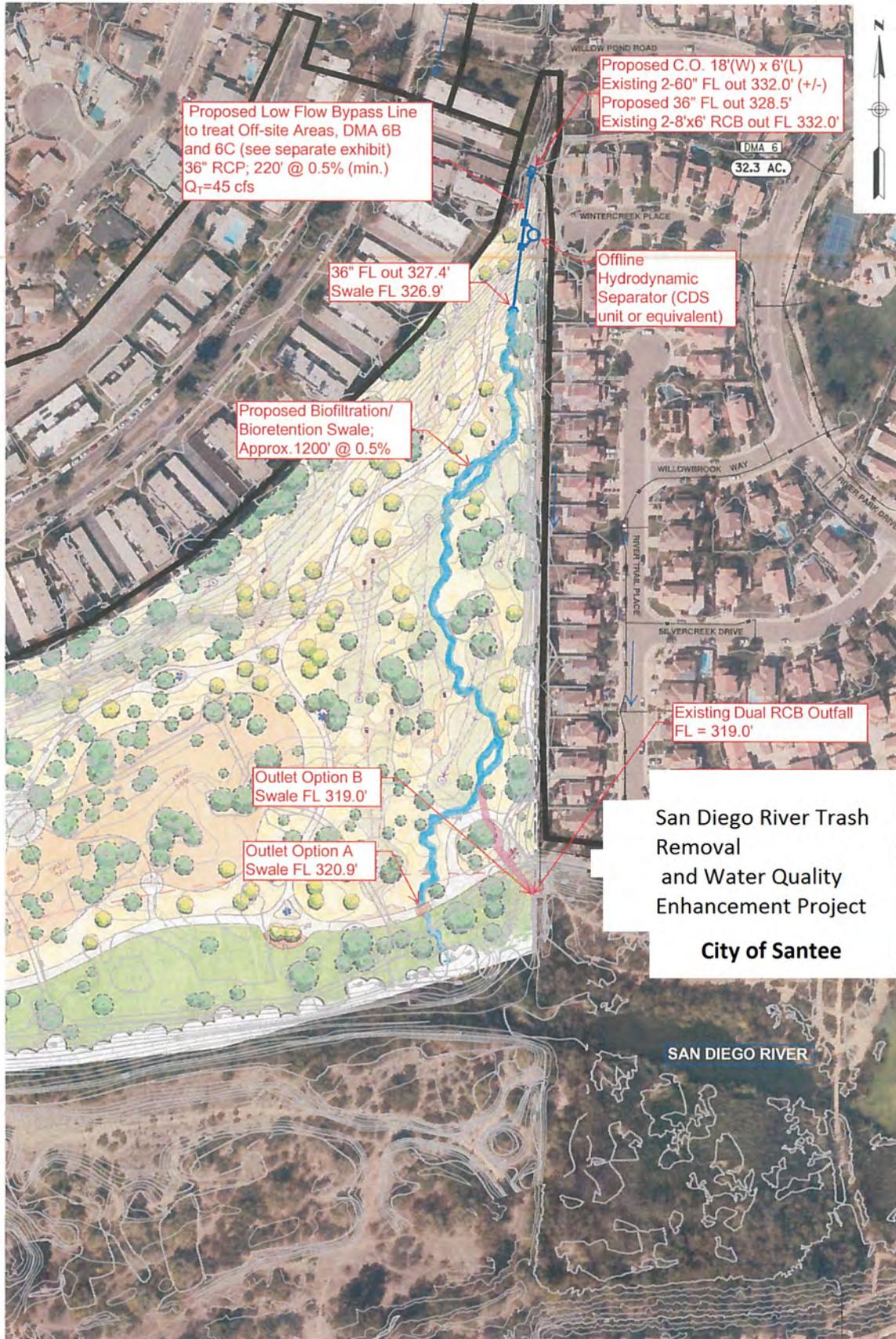
12) Matching funds from applicant.

The applicant is providing funds in the amount of \$337,960.00 or 33% of project costs.

COMPLIANCE WITH CEQA: The proposed project has already completed the California Environmental Quality Act (CEQA) pursuant to Title 14 California Code of Regulations, Sections 15301(i), 15304 and 15306.

The final document, titled "Mast Park Master Plan Report", is 79 pages, plus an appendix containing an environmental constraints assessment performed by HELIX Environmental Planning and a Cultural Resources Study by ASM Affiliates.

In November 2011, the city's planning director completed a 35-page Environmental Checklist Form, which concluded that a Negative Declaration was appropriate for the Mast Park Master Plan project.



Proposed Low Flow Bypass Line to treat Off-site Areas, DMA 6B and 6C (see separate exhibit)
 36" RCP; 220' @ 0.5% (min.)
 $Q_T = 45$ cfs

Proposed C.O. 18'(W) x 6'(L)
 Existing 2-60" FL out 332.0' (+/-)
 Proposed 36" FL out 328.5'
 Existing 2-8'x6' RCB out FL 332.0'

DMA 6
 32.3 AC.

36" FL out 327.4'
 Swale FL 326.9'

Offline Hydrodynamic Separator (CDS unit or equivalent)

Proposed Biofiltration/Bioretention Swale;
 Approx. 1200' @ 0.5%

Existing Dual RCB Outfall
 FL = 319.0'

Outlet Option B
 Swale FL 319.0'

Outlet Option A
 Swale FL 320.9'

San Diego River Trash Removal and Water Quality Enhancement Project
City of Santee

SAN DIEGO RIVER



GRAPHIC SCALE 1" = 150'

RICK
 ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 619-291-0707
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MAST PARK - CITY OF SANTEE
 CONCEPTUAL SITE PLAN FOR REGIONAL BMP
 JUNE 30, 2016

Resolution No: 16-05

**RESOLUTION OF THE GOVERNING BOARD OF
THE SAN DIEGO RIVER CONSERVANCY**

**AUTHORIZING THE EXECUTIVE OFFICIER TO GRANT FUNDS FOR THE SAN DIEGO
RIVER CONSERVANCY PROPOSITION 1 GRANT PROGRAM TO
THE CITY OF SANTEE**

WHEREAS, the mission of the San Diego River Conservancy is to further the goals of its enabling legislation by conserving and restoring the lands and waters of the San Diego River watershed; and

WHEREAS, the Legislature of the State of California has provided funds under The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1) for \$7.545 billion in general obligation bonds to fund ecosystems and watershed protection and restoration, water supply infrastructure projects, including surface and groundwater storage, and drinking water protection; and

WHEREAS, Chapter 6, Section 79730 of Proposition 1 provides for competitive grants for multibenefit ecosystem and watershed protection and restoration projects in accordance with statewide priorities; and

WHEREAS, Chapter 6, Section 79731(e) of Proposition 1 provides for seventeen million dollars (\$17,000,000) to the San Diego River Conservancy, for multibenefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state; and

WHEREAS, the San Diego River Conservancy has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, San Diego River Conservancy staff has reviewed the City of Santee's Proposition 1 application and recommends the following proposal for approval.

NOW, THEREFORE, BE IT RESOLVED that the San Diego River Conservancy's Governing Board, based on the accompanying staff report and attached exhibits, hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines for the Conservancy's Proposition 1 grant program.
2. The proposed authorization is consistent with the purposes and objectives of the San Diego River Conservancy Act (Division 22.9 of the Public Resources Code, Chapter 3, and Section 32649).
3. The San Diego River Conservancy hereby authorizes the disbursement of up to \$686,900.00 (six hundred eighty six thousand and nine hundred dollars) in grant funds to the City of Santee to construct a stormwater drainage system and treat polluted runoff by installing bioswale, a retention basin and removing trash at the eastern border of Mast Park which will improve water quality (Project).
4. The San Diego River Conservancy appoints the Executive Officer, or her designee, as an agent to execute all agreements, grants, sub-contracts and other documents needed which may be necessary for the completion of the aforementioned project.
5. Prior to the disbursement of funds, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy a scope of work, budget and schedule; and the names and qualifications of any contractors to be employed in carrying out the project.

Approved and adopted the 10th day of November 2016. I, the undersigned, hereby certify that the foregoing Resolution Number 16-05 was duly adopted by the San Diego River Conservancy's Governing Board.

Roll Call Vote:

Yeas: _____

Nays: _____

Absent: _____

Julia L. Richards
Executive Officer

San Diego River Conservancy's Governing Board Members Roll Call Vote

Name	Ayes	Noes	Abstained
CNRA: Bryan Cash			
DOF: Eriana Ortega/Karen Finn			
DPR: Robin Greene			
Mayor: Brent Eidson, designee			
County Supervisor Dianne Jacob			
Scott Sherman City of San Diego Councilmember			
Ben Clay, Chair			
Ruth Hayward, Vice Chair			
Ann Haddad			
Andrew Poat			
Deanna Spehn			

SAN DIEGO RIVER CONSERVANCY

Staff Recommendation
SDRC Resolution 16-06
November 10, 2016

PROPOSITION 1 GRANT

RECOMMENDED ACTION: Authorization to provide up to \$153,400.00 for invasive removal and habitat restoration at the mouth of the San Diego River.

LOCATION: In the San Diego Watershed at the mouth of the river near the community of Ocean Beach, in the City of San Diego, County of San Diego.

RESOLUTION AND FINDINGS: Staff recommends that the San Diego River Conservancy adopt the following resolution pursuant to the San Diego River Conservancy Act (Public Resources Code, § 32630 et seq.):

“The San Diego River Conservancy hereby authorizes the disbursement of up to \$153,400.00 to implement projects focused on improving water quality, water supply, ecosystem, watershed protection and restoration specifically as follows:

- The San Diego River Park Foundation: One hundred fifty-three thousand four hundred dollars to remove invasive non-native plant species, and restore dune and estuarine habitat, in accordance with SDRC’s permits for invasive plant removal.

Prior to the disbursement of funds, the grantee shall submit for review and written approval of the Executive Officer a scope of work, budget and schedule with the names and qualifications of any contractors to be employed in carrying out the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the San Diego River Conservancy hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines for the Conservancy’s Proposition 1 grant program; and
2. The proposed authorization is consistent with the purposes and objectives of Division 22.9 of the Public Resources Code, Chapter 3, and Section 32649. (San Diego River Conservancy Act)

PROJECT SUMMARY: In August 2015, the Conservancy solicited project proposals aimed at increasing water supply and improving water quality. This solicitation was posted on the Conservancy and Natural Resource Agency’s Bond Accountability website and emailed to multiple organizations in California. The recommended grant would fund the proposal, as described below:

SAN DIEGO RIVER CONSERVANCY

The goals of this project are to reduce anthropogenic and invasive plant threats to the salt marsh and coastal dune habitat. The SDRPF will remove invasive plants, improve habitat and expand existing populations' sensitive plants.

This project will engage community volunteers, ensuring that they are well-trained, educated and supervised to limit adverse effects on the species or their habitats. This project of the sensitivity of the species and the mix between natives and non-natives plants Targeted herbicide will be applied by a licensed qualified applicator. SDRPF will notify community in advance of herbicide treatment and post notices to restrict access as needed.

Habitat restoration will begin following invasive removal. Native plants will be installed in areas susceptible to re-colonization by invasives. Native plant establishment in these areas will help restore the habitat and provide space for sensitive plants and animals recovery.

To prevent trampling in sensitive restored areas, temporary barriers will be installed by the SDRPF plus interpretive signage and community outreach.

SITE DESCRIPTION: The mouth of the San Diego River has rolling sand dunes interspersed with native vegetation and patches of invasive plants. Sensitive native vegetation is blocked from pedestrian access to prevent trampling and the entire sand bar is surrounded by water.

PROJECT HISTORY/NEED: The San Diego River mouth and San Diego River Estuary contain many sensitive habitat areas, threatened by anthropogenic impacts and invasive non-native plant species. Located within the 300-acre San Diego River Estuary, the project area plays an important role in providing habitat for birds, fish, plants, invertebrates, amphibians and mammals, including several rare and/or endangered species.

The project area includes habitat for two endangered plant species identified as priorities for protection through regional planning through the San Diego Management and Monitoring Program (SDMMP): salt marsh bird's-beak (*Chloropyron maritimum*) and Nuttall's acmispon (*Acmispon prostratus*), as well as coast wooly heads, and many other sensitive species.

For salt marsh bird's-beak, the MSCP Rare Plant Monitoring completed by the City of San Diego in 2015, as well as monitoring coordinated by the San Diego River Park Foundation, both identify trampling as the most significant threat to existing occurrences at the River Mouth. In addition, a four-year study by the San Diego River Park Foundation (completed in 2016 in partnership with and funded by the US Fish and Wildlife Service) identified encroachment of invasive *Limonium diriusculum* (European sea lavender), European bromus species (including cheatgrass) and other invasive non- natives as an additional threat to the existing native plant population. In fact, this site has a high occurrence of the European sea lavender. Threats to the Nuttall's acmispon are similar – threatened by trampling, dog use, and invasion by invasive non-native species including ice plant and garland chrysanthemum.

The entire ecosystem of the project area is also impacted by pollution and bacteria introduced to the San Diego River from trash, pet waste, and dumping.

This project also presents a valuable opportunity to engage community members and visitors in restoration activities around the San Diego River and train the future stewards of this river.

SAN DIEGO RIVER CONSERVANCY

PROJECT FINANCING: The total project amount is \$266,000.00. Project applicant is requesting \$153,400.00 (58%) funding from the Conservancy. The anticipated source of Conservancy funds for this project is an appropriation from Proposition 1 grant funds, for Ecosystem, Watershed Protection and Restoration.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION: This project would be undertaken consistent with the Conservancy's enabling legislation (Public Resources Code, §§ 32630-32661).

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S): Consistent with Program 3A, Preserve and Restore Natural Resources (Removal of non-native plants) and Program 2, Project 2.1 Strategy 6: Work with SDRPF to implement interpretive signage program at the estuary.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES: The proposed project is consistent with the Conservancy's current Project Selection Criteria and Guidelines, last updated on May 2015, in the following respects:

REQUIRED CRITERIA

- 1) The project is within the jurisdiction of the San Diego River Conservancy (San Diego watershed).
Yes. The project area is located in the City of San Diego, at the San Diego River Mouth.
- 2) The extent to which the project has support from the jurisdiction over the location of the project.

A letter of support from the City of San Diego indicates they will have an executed Right of Entry in place before the beginning of the project.

- 3) The extent to which the project achieves one or more of the purposes of Proposition 1, Chapter 6, section 79732 subsection a (1-13).

Purpose 2 – Climate change impacts are especially pronounced in coastal areas and estuaries, with increasing air and water temperatures, sea level rise, changes in runoff from the land, and altered currents all directly affecting quantity and quality of habitat. Small, threatened communities of native plants are especially susceptible to habitat loss and degradation. To address this issue, this project will increase the number of occurrences and increase the habitat area that can support target native species by removing competition from invasives and reducing threats of trampling and other anthropogenic negative impacts. In this way, this project increases the resiliency of native species and this habitat area.

Purpose 3 – The project area is highly trafficked by the public, surrounded by Ocean Beach, a low income community. In addition to the dense surrounding neighborhood, the significant tourism industry (driven by the business district of Ocean Beach, surfing and beach going opportunities, the popular off-leash dog beach, the San Diego River Trail and many other resources) brings hundreds of thousands of visitors to the area every year.

The California River Parkways Act identifies habitat restoration as a critical requirement for an urban river parkway. It is already a popular recreation area, and habitat restoration is an important investment to protect long-term shared use.

SAN DIEGO RIVER CONSERVANCY

Purpose 4 – Estuaries have high wildlife values, especially for fish and birds. The project site contains endangered species habitat for many species including the salt marsh bird's beak, Nuttall's acmispon, and California least tern. Habitat recovery as a goal of this project will benefit these species.

Purpose 10 – The location includes dune habitat that occurs within the San Diego River watershed and will have significant impacts on protecting and restoring the coastal portion of the watershed.

Purpose 11 – This project location adjacent to the popular Ocean Beach Dog Beach where bacteria from dog waste is a significant water quality issue. The outreach and community engagement effort and interpretive signage design will educate the public and help to reduce introduction of bacteria.

Purpose 12 – Estuaries have high wildlife value, especially for fish and birds. The project site contains these animals and habitat for endangered plant species like the salt marsh bird's beak, Nuttall's acmispon, and California least tern. Habitat recovery as a goal of this project will benefit these species.

- 4) The extent to which the application includes a complete, reasonable and well thought out proposed scope of work, budget and schedule.

Coordination with the landowner clarified the boundaries and scope of an upcoming mitigation project upstream of the proposed project which is a reflection of this proposed project. The City is widening the West Mission Bay Dr. Bridge over the River, and is planning a mitigation and monitoring project. After coordinating with the biologist, this project area was modified to include areas not in the City's mitigation effort. Through this coordination, the rate of success will be increased by leveraging similar work being done upstream. The project is expected to begin in 2017.

- 5) The extent to which the project promotes and implements state and/or regional plans and policies.

- A. California Water Action Plan (CWAP)

- i. The restoration of important species and habitat, and developing a more resilient, sustainably managed water resources system (including environment) that can better withstand inevitable and unforeseen pressures in the coming decades.

- B. San Diego Management and Monitoring Program (SDMMP)

- i. Implement objectives for this year for management of several species and habitat occurrences identified in the Management Strategic Plan (MSP), namely acmispon prostrates and the *Cordylanthus maritimus*.

- C. San Diego River Watershed Management Plan

- i. Section 4.8.4 Long-term Action Recommendation 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.

- 6) The extent to which the project employs new or innovative technology or practices.

SAN DIEGO RIVER CONSERVANCY

While effective, hand-pulling of weeds is both time consuming and expensive, this project seeks to innovate more or equally effective solutions by exploring the long-term efficacy of solarization and targeted herbicide application. In addition, mobile- powered mapping tools will enable more trained volunteers to use their own technology, allowing for the growth of quality data by empowering citizen scientists.

7) The extent to which the applicant demonstrates a clear and reasonable method for measuring and reporting the effectiveness of the project.

- Achieve 90% reduction in non-native invasive plant coverage. This will increase coverage of Nuttall's acmispou in areas where weeds co-occur, which will be measured through surveys and mapping.
- Supplement current Rare Plant Monitoring by the landowner for the salt marsh bird's-beak with additional surveys during the six month flowering season to better monitor population occurrence. Data for these surveys will be provided in a report.
- Engage 400 volunteers annually in monthly work parties to remove invasive plants.
- Conduct field surveys of community members visiting the project area to assess public awareness regarding water resource and habitat management. Data collected will be assessed at least four (4) times per year to track changes in public awareness over time throughout the project. Survey questions will also be crafted to inform the type of access control messaging is most likely to be effective to the community and public.
- Install at least 2 large interpretive signs, plus bond acknowledgement.
- California Rapid Assessment Method (CRAM) will be utilized to assess impacts to water quality both before and after the project implementation.

8) The extent to which the project provides multiple benefits.

- The project will provide benefit to other species like Coastal wooly-heads (*Nemacaulis denudate*) and other peripheral species like sticky dudleya, San Diego sand aster (*Corethrogyne filaginifolia*), beach golden aster (*Erigeron glaucus*), and others through dune and estuary habitat improvement and protection.
- Reduce trampling of the dune and wetland habitat by people and dogs through improvements and repairs to existing access control barriers and addition of new barriers where appropriate. Through community surveys, information from trail users, dog owners, and visitors will be collected and a message relayed to encourage responsible public access.
- Promote expansion and protect existing populations of species through removal of competing invasive non-native plants and re-establishment of native plants.
- Improve community awareness of the protected resources through outreach, education and interpretive signage, as well as volunteer engagement in the restoration activities.

9) Whether the project reflects best available science.

The project will utilize protocols defined by the MSCP Rare Plant Survey to generate comparable data.

10) The extent to which the applicant demonstrates experience successfully implementing similar projects or demonstrates appropriate and necessary partnerships to complete the project.

SAN DIEGO RIVER CONSERVANCY

The San Diego River Park Foundation has over a decade of experience in coordinating and training volunteers to complete service projects. As Chair of the San Diego River Coalition, SDRPF has existing relationships with active non-governmental organizations and agencies along the San Diego River to provide any needed technical advice.

11) The project is in a disadvantaged community.

Yes the project is located in a disadvantaged community.

12) Matching funds from applicant.

The applicant is providing funds in the amount of \$112,600.00, or 42% of the total project costs.

COMPLIANCE WITH CEQA: The proposed project is consistent with the California Environmental Quality Act pursuant to the suite of permits obtained by the Conservancy for its Invasive Non-Native Plant removal and control program. (e.g. California Department of Fish and Wildlife 1600 permit, USACE Regional General Permit #41, USFWS Informal consultation).

SAN DIEGO RIVER CONSERVANCY

PROJECT MAP



Resolution No: 16-06

**RESOLUTION OF THE GOVERNING BOARD OF
THE SAN DIEGO RIVER CONSERVANCY**

**AUTHORIZING THE EXECUTIVE OFFICER TO GRANT FUNDS FOR THE SAN DIEGO
RIVER CONSERVANCY PROPOSITION 1 GRANT PROGRAM TO
THE SAN DIEGO RIVER PARK FOUNDATION**

WHEREAS, the mission of the San Diego River Conservancy is to further the goals of its enabling legislation by conserving and restoring the lands and waters of the San Diego River watershed; and

WHEREAS, the Legislature of the State of California has provided funds under The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1) for \$7.545 billion in general obligation bonds to fund ecosystems and watershed protection and restoration, water supply infrastructure projects, including surface and groundwater storage, and drinking water protection; and

WHEREAS, Chapter 6, Section 79730 of Proposition 1 provides for competitive grants for multibenefit ecosystem and watershed protection and restoration projects in accordance with statewide priorities; and

WHEREAS, Chapter 6, Section 79731(e) of Proposition 1 provides for seventeen million dollars (\$17,000,000) to the San Diego River Conservancy, for multibenefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state; and

WHEREAS, the San Diego River Conservancy has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, San Diego River Conservancy staff has reviewed the San Diego River Park Foundation's Proposition 1 application and recommends the following proposal for approval.

NOW, THEREFORE, BE IT RESOLVED that the San Diego River Conservancy's Governing Board, based on the accompanying staff report and attached exhibits, hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines for the Conservancy's Proposition 1 grant program.
2. The proposed authorization is consistent with the purposes and objectives of the San Diego River Conservancy Act (Division 22.9 of the Public Resources Code, Chapter 3, and Section 32649)
3. The San Diego River Conservancy hereby authorizes the disbursement of up to \$153,400.00 (one hundred fifty three thousand, four hundred dollars) in grant funds to the San Diego River Park Foundation to remove invasive plants and restore approximately 3.4 acres of estuarine habitat at the mouth of the San Diego River in the community of Ocean Beach in the City of San Diego consistent with SDRC's watershed wide permits and Proposition 1 Grant funding (Project).
4. The San Diego River Conservancy appoints the Executive Officer, or her designee, as an agent to execute all agreements, grants, sub-contracts and other documents needed which may be necessary for the completion of the aforementioned project.
5. Prior to the disbursement of funds, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy a scope of work, budget and schedule; and the names and qualifications of any contractors to be employed in carrying out the project.

Approved and adopted the 10th day of November 2016. I, the undersigned, hereby certify that the foregoing Resolution Number 16-06 was duly adopted by the San Diego River Conservancy's Governing Board.

Roll Call Vote:

Yeas: _____

Nays: _____

Absent: _____

Julia L. Richards
Executive Officer

San Diego River Conservancy's Governing Board Members Roll Call Vote

Name	Ayes	Noes	Abstained
CNRA: Bryan Cash			
DOF: Eriana Ortega/Karen Finn			
DPR: Robin Greene			
Mayor: Brent Eidson, designee			
County Supervisor Dianne Jacob			
Scott Sherman City of San Diego Councilmember			
Ben Clay, Chair			
Ruth Hayward, Vice Chair			
Ann Haddad			
Andrew Poat			
Deanna Spehn			

SAN DIEGO RIVER CONSERVANCY

Staff Recommendation
SDRC Resolution 16-07
November 10, 2016

PROPOSITION 1 GRANT

RECOMMENDED ACTION: Authorization to provide up to \$420,453.00 to restore and/or enhance native riparian and transitional habitat via removal of invasive, non-native vegetation species and water quality monitoring in Rueda Canyon.

LOCATION: San Diego Canyonlands (SDCL) project is located in San Diego River watershed area in the City of San Diego in Rueda Canyon Open Space Preserve, County of San Diego.

RESOLUTION AND FINDINGS: Staff recommends that the San Diego River Conservancy adopt the following resolution pursuant to the San Diego River Conservancy Act (Public Resources Code, § 32630 et seq.):

“The San Diego River Conservancy hereby authorizes the disbursement of up to \$420,453.00 to implement projects focused on improving water quality, water supply, ecosystem, watershed protection and restoration specifically as follows:

- San Diego Canyonlands: Four hundred twenty thousand four hundred fifty three dollars to remove 3.95 acres invasive non-native plant species, restore riparian habitat and monitor water quality in Rueda Canyon.

Prior to the disbursement of funds, SDCL shall submit for review and written approval of the Executive Officer a scope of work, budget and schedule, and the names and qualifications of any contractors to be employed in carrying out the project.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the San Diego River Conservancy hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines for the Conservancy’s Proposition 1 grant program.
2. The proposed authorization is consistent with the purposes and objectives of Division 22.9 of the Public Resources Code, Chapter 3, and Section 32649. (San Diego River Conservancy Act)

PROJECT SUMMARY: In August 2015, the Conservancy solicited project proposals aimed at increasing water supply and improving water quality. This solicitation was posted on the Conservancy and Natural Resource Agency’s Bond Accountability website and emailed to multiple organizations in California. The recommended grant would fund the proposal, as described below:

SAN DIEGO RIVER CONSERVANCY

The project would restore wetland and associated aquatic ecosystems and wildlife migration corridors, promote watershed health, protect and restore urban watershed health, reduce pollution and/or contamination of the San Diego River, assist the recovery of endangered, threatened, or migratory species by improving watershed health. This project will also implement the San Diego Multiple Species Conservation Plan and Natural Communities Conservation Plan.

The project includes an Eco-Garden Aquaponics portion, educates children on sustainable agriculture while preserving natural resources such as water and soil, and enhance the environment. This program is designed with sustainability as a goal, as it directly affects their future. Students will grow native plants to restore Shepherd Canyon, also within the San Diego River Watershed, while monitoring water quality, water usage, and the impact on the environment.

SITE DESCRIPTION: Rueda Canyon is a tributary to the San Diego River and, in its current, disturbed condition, supplies trash, sediment, and seeds of invasive plant species (e.g. pampas grass and tamarisk) to the San Diego River watershed.

PROJECT HISTORY/NEED: Complete infestation of the stream corridor in Rueda Canyon has not yet occurred so it is urgent to address these invasive species before they proliferate throughout the canyon. Reduction of these sources of trash, sediment, and seed materials are necessary to improve health of the San Diego River.

Building on the progress of the Rueda Canyon Habitat Restoration & Enhancement Phase I Project, SDCL proposes to expand and extend the footprint of removal to an additional 3.95 acres and control of invasive, non-native vegetation in northern Rueda Canyon as well as subsequent re-vegetation/restoration with native species.

For this project, SDCL will be collaborating with ECOLIFE Conservation who will grow native plants in school aquaponics systems for use in habitat restoration projects. Aquaponics is a sustainable form of agriculture that uses 90% less water and land than traditional farming. One of the primary benefits of aquaponics is this circulating system uses no pesticides or fertilizers, protecting local watersheds from contamination. SDCL will work with ECOLIFE to identify native plant varieties and monitor plant survival rates. This partnership will create a synergistic and economical method to increase outreach and educate children to aid in the restoration of the San Diego River watershed.

PROJECT FINANCING: The total project amount is \$493,410.00. Project applicant is requesting \$420,453.00 (85%) funding from the Conservancy. The anticipated source of Conservancy funds for this project is an appropriation from Proposition 1 grant funds, for Ecosystem, Watershed Protection and Restoration.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION: This project would be undertaken consistent with the Conservancy's enabling legislation (Public Resources Code, §§ 32630-32658).

CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S): Consistent with Program 3A, Preserve and Restore Natural Resources (Removal of non-native plants), Program 4, Enhance Water Quality and Natural Flood Conveyance, and Program 5, Expand the Organization's Capacity and Reach, Develop and Implement a

SAN DIEGO RIVER CONSERVANCY

Partnering Strategy, from the Conservancy's Strategic Plan Update 2012-2017.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's current Project Selection Criteria and Guidelines, last updated on May 2015, in the following respects:

REQUIRED CRITERIA

- 1) The project is within the jurisdiction of the San Diego River Conservancy (San Diego watershed). Yes. The project is located in the City of San Diego in Rueda Canyon, a tributary to the San Diego River.
- 2) The extent to which the project has support from the jurisdiction over the location of the project. Yes. The City of San Diego Open Space Division strongly supports the proposed work in Rueda Canyon and intends to issue a Right of Entry (ROE) for the project if funded.
- 3) The extent to which the project achieves one or more of the purposes of Proposition 1, Chapter 6, section 79732 subsection a (1-13).

Purposes 4 and 12 – The project would achieve the purposes identified in Chapter 6 of Prop 1 including: the restoration of wetlands and associated aquatic ecosystems and wildlife migration corridors and assist the recovery of endangered, threatened, or migratory species. It will also help implement the San Diego MSCP and NCCP through the restoration of native plant communities, enhancement of native biodiversity, reduction of soil erosion and sediment sources within the Rueda Canyon Open Space Preserve, restoration of ecosystem resilience, and control of invasive, non-native plant species within Rueda Canyon.

Removal of non-native trees from riparian communities will directly enhance migratory bird ecosystems by allowing native riparian species to recover, providing the structure and composition more suitable for nesting and foraging by migratory birds. The project enhances suitable habitat for least Bell's vireo (*Vireo bellii pusillus*) (Federal and State listed Endangered) adjacent to a stretch of the San Diego River that has been identified as a major site for the species.

Overall wetland health is also benefitted with improved instream flow. ECOLIFE will work with students to propagate five native plant varieties using aquaponics to help restore the threatened habitat in Shepherd Canyon. The plants to be monitored are: tall flatsedge, California wildrose, Hooker's evening primrose, western goldenrod, California mugwort, California blackberry, elderberry, and Fremont's cottonwood.

Purpose 8 – Reduce Fire Risk, Palms increase fire risk in riparian habitats (Cal-IPC). Dead and dry fronds both attached to the tree and those scattered below are highly flammable. Removal of the palms from the proposed project areas will help protect the watershed from the risk of fire and will improve watershed health.

Purpose 11 – Reduce pollution or contamination of rivers, the proposed project would promote, protect and restore urban watershed health, reduce pollution and/or contamination of the San Diego River. Removal of palm and other non-native trees and vegetation promotes natural re-vegetation of native riparian species/trees with broader canopies offering superior rainfall interception. In addition, native trees provide foliage and other woody debris that help slow stormwater flow and decrease runoff volume. Woody debris dissipates stormwater flow energy and also stabilizes the rate of sedimentation of stream channels.

SAN DIEGO RIVER CONSERVANCY

Dense stands of invasive palm trees in urban canyons tend to support and attract encampments by homeless people (Cal-IPC), which results in impaired water quality from refuse and human waste. Aquaponics is a closed-loop system which cycles water from the fish reservoir to a plant grow bed. The plants utilize the fish waste as a natural fertilizer while purifying the water, keeping waste out of our rivers.

- 4) The extent to which the application includes a complete, reasonable and well thought out proposed scope of work, budget and schedule.

The scope of work, budget, and schedule outlined in this proposal reflects SDCL substantial experience in recruiting, motivating, and supervising large numbers of volunteers to participate in community-based habitat restoration. SDCL will leverage the contributions of the surrounding community and use volunteers (1534 volunteer hours) to achieve the greatest quality and quantity of habitat enhancement over the course of this project. Training, educating and motivating local volunteers will generate sustainable stewardship for these open spaces achieving efficiency and greater accomplishments for the investment over a longer period of time.

- 5) The extent to which the project promotes and implements state and/or regional plans and policies.

- A. California Water Action Plan

- i. Make Conservation a California Way of Life (Page 5): All Californians have a stake in our water future. These actions set us on a path toward reliability, restoration, and resilience in California water. We must adapt to this “new normal” and recapture California’s resource management leadership and our economic and environmental resilience and reliability. There are no silver bullets or single projects that will “fix the problem.” We must have a portfolio of actions to comprehensively address the challenges this state faces. Some actions must be taken immediately to address current risks such as the looming drought and inadequate safe drinking water. Additionally, over the next five years, we must address fundamental changes in our approach to water resource management and be prepared for the changes the future holds.
- ii. Goals: Reliability, Restoration and Resilience (Page 4): The California Water Action Plan has been developed to meet three broad objectives: more reliable water supplies, the restoration of important species and habitat, and a more resilient, sustainably managed water resources system (water supply, water quality, flood protection, and environment) that can better withstand inevitable and unforeseen pressures in the coming decades. Over the next five years (i.e., 2014-2019), the actions discussed below will move California toward more sustainable water management by providing a more reliable water supply for our farms and communities, restoring important wildlife habitat and species, and helping the state’s water systems and environment become more resilient.

- B. California Climate Adaptation Strategy (2009)

- i. Biodiversity and Habitat Adaptation Strategy 2: Management of Watersheds, Habitat, and Vulnerable Species.

SAN DIEGO RIVER CONSERVANCY

C. Draft State Wildlife Action Plan (2014)

- i. Conservation Strategy 3 for the American Southwest Riparian Forest and Woodland: “reduce extent and spread of invasive species with emphasis on ecosystem function for SGCN (Species of Greatest Conservation Need) (e.g. least Bell’s vireo).”

D. Draft Water Quality Improvement Plan for the San Diego River Watershed (2015):

- i. “The removal of invasive species in the watershed is an additional strategy for management of homeless encampments as they provide shelter and allow encampments to remain hidden from view.”
- ii. The plan adds that homeless waste management not only has targeted pollutant reduction benefits, but there is a potential these programs also support larger socio-economic issues.

E. City of San Diego General Plan (adopted 2008 amended 2010)

- i. Conservation, Urban Design and Recreation Elements:
- ii. A.1 Preserve and protect natural landforms and features: (b) Continue to implement the MSCP to conserve San Diego’s natural environment. Preserve and enhance remaining naturally occurring features such as wetlands, riparian zones, canyons, and ridge lines.
- iii. A.2 Open Space Linkages: Use open space and landscape to define and link communities.
- iv. Recreation Element F-7f: "Allow for the closure of existing public trails where such trails are unsafe, unsustainable, redundant...and unnecessarily impact environmentally sensitive areas".

F. Multiple Species Conservation Plan (MSCP)

- i. Multiple Habitat Planning Area (MHPA) Rueda and Shepherd Canyons are located within the City of San Diego’s Multiple Habitat Planning Area (MHPA). As such the proposed project would be consistent with the City of San Diego’s Multiple Species Conservation Subarea Plan and the City’s NCCPs.
- ii. The Proposed Project activities are consistent with the overarching Management Goals and Objectives for the MHPA (MSCP Section 1.5.1) including Management Objective 3: “To enhance and restore, where feasible, the full range of native plant associations in strategic locations and functional wildlife connections to adjoining habitat in order to provide viable wildlife and sensitive species habitat.”
- iii. The Proposed Project activities are also consistent with the General Management Directives for the MHPA (Section 1.5.2) including the directive related to Invasive Exotics Control and Removal.

6) The extent to which the project employs new or innovative technology or practices.

Removal of invasive plant species in urban canyons of the watershed will control invasive plants because it reduces the seed source and propagules to areas downstream of the project area.

SAN DIEGO RIVER CONSERVANCY

The proposed project will utilize the Bradley Method of restoration of native plant communities (Bradley 1997). Where feasible, the proposed project will also utilize the DeSimone Method (DeSimone, 2012) for habitat restoration, entailing weed control and supplemental inoculation (seed application) for accelerated colonization of native plant communities.

Bradley, Joan. 1997. *Bringing back the bush: The Bradley method of bush regeneration*. Lansdowne Publishing Pty. Ltd. 18 Argyle Street, The Rocks, New South Wales, Australia.

DeSimone, Sandra. 2012. *Restoration and Science: A Practitioner/Scientist's View from Rare Habitat Restoration at a Southern California Preserve*. Restoration Ecology. 2013, vol. 21, no2, pp. 149-152. Audubon Starr Ranch Sanctuary, 100 Bell Canyon Road, Trabuco Canyon, CA 92679.

Ecolife will utilize aquaponics as an innovative form of agricultural technology in order to save water for growing native plants while reducing environmental impact. With the support of interdisciplinary instruction, aquaponics gives students project-based learning experiences to gain knowledge on sustainable farming/ agriculture to help California conserve water and gain green career skills to become a leader in the environmental field. In addition, students will be using a high-tech probe to record water quality and a meter to record water usage, which will be uploaded to a platform for data analysis.

- 7) The extent to which the applicant demonstrates a clear and reasonable method for measuring and reporting the effectiveness of the project.

The project would include quarterly qualitative and quantitative vegetation community monitoring. SDCL will include paired (before and after) photographs of all water-quality improvement features and devices and trail repairs, including, but not limited to filters, BMPs, and native plant re-vegetation.

Based on the qualitative and quantitative monitoring described above, SDCL will prepare annual reports documenting all work performed under this grant as well as the performance of the restored areas. All reports will be provided to SDRC and City of San Diego Department of Parks and Open Space Division as land owner and will be made publicly available on SDCL website. In addition, SDCL will share these reports and all constituent data with USGS, SANDAG, the San Diego Mitigation and Monitoring Program, and others upon written request.

ECOLIFE will coordinate with teachers to collect data on a monthly basis. This data will cover student engagement and propagation data, which will detail the conditions of the plants during the growth stage and the transplanting stage. Photos and growth data will be collected by the students and communicated to ECOLIFE through an electronic platform. ECOLIFE will perform bi-monthly field visits to the school to assess the project's progress.

SDCL will be transplanting aquaponics-grown plants into the areas they are currently restoring. SDCL will collect data on the conditions of the plants, the location of the transplant, survival rate and its continued health and maintenance.

SAN DIEGO RIVER CONSERVANCY

All data will be stored electronically and submitted to the SDRC on a quarterly basis. Upon completion of the project all data will be made available to the public, participants, and the State through a comprehensive project completion report.

Deliverables will include: Before and after photo documentation of project site, assessment and monitoring plan, quarterly progress reports to the Conservancy and a final project report.

Measurable Results:

1. Host 12 San Diego County Urban Corp work parties to remove non-native vegetation and other debris.
2. Host 18 volunteer events engaging at least 274 volunteers over 3 years.
3. Collect, prepare, and apply 40 lbs of live native seed to restored areas.
4. Install 500 native plants via live cuttings.
5. Decommission / prevent access to 2 unauthorized trail segments.

Measurable Results (ECOLIFE):

6. Create a sustainable ecosystems curriculum including topics such as sustainable agriculture, native plants, restoration, and watershed health.
7. Implement the curriculum in two classrooms exposing 70-100 students to the lesson and associated activities.
8. Identify a minimum of five native plant species capable of propagating in aquaponics systems.
9. Detail protocols of the best methods and conditions for transplanting into (1) intermediary containers and (2) into the local watershed. This will include types of plants, potting medium, watering cycles, environmental conditions, etc.
10. Calculate the average amount of water used per plant, starting from seed to transplanting into a container with soil;

Monitoring:

Quarterly qualitative and quantitative vegetation community monitoring. Monitor live-cutting survivorship with a target survivorship rate of 25%. Additionally, Project success criteria, to be achieved by October 2019 are:

- 25% survival (including replacement plantings) of all installed live cuttings;
- 25% native cover for areas seeded and restored by February 2018;
- 50% native cover by 2019.

SDCL will conduct pre-project water quality monitoring using ambient sampling to assess the physical and chemical conditions of our study streams and get useful data on certain parameters, temperature and contaminants such as nutrients, dissolved oxygen, and pH.

Monitoring for collaboration with ECOLIFE Conservation:

- Pre-post test: Student comprehension on local habitat and sustainability will be tested before and after implementing the curriculum. This test will be conducted by the teacher in coordination with ECOLIFE.
- Completion and functionality of aquaponic system: ECOLIFE will perform onsite monitoring on a bi-monthly basis to ensure the system is successfully operating. Varieties/number of plants grown: ECOLIFE will monitor on a monthly basis the number and variety of new plants grown in the system. This data will be collected and stored electronically.

SAN DIEGO RIVER CONSERVANCY

- Health/number of plants transplanted into pots: ECOLIFE will monitor the number of plants transferred from the system into pots and will assess the health of each of these plants. Plant health will be rated as great, good, poor, and non-survive.
- Water quantity: Students will utilize a water meter to monitor and record water usage in the aquaponics system.
- Water quality: Students will use a probe and test kits to collect water quality data consisting of: temperature, pH, ammonia, nitrite, and nitrate.
- Number/survival of plants transplanted into habitat: SDCL will monitor and report the number of survival of plants transplanted into the local watershed. Plants will be monitored on a monthly basis and survival rates will be reported on a quarterly basis.

8) The extent to which the project provides multiple benefits.

The project would result in the restoration of wetlands and associated aquatic ecosystems and wildlife migration corridors, promote watershed health, protect and restore urban watershed health, reduce pollution and/or contamination of the San Diego River, assist the recovery of endangered, threatened, or migratory species by improving watershed health. It will also help to implement the San Diego MSCP and NCCP through the reduction of soil erosion and sediment sources within the Rueda Canyon Open Space Preserve, restoration of native plant communities, enhancement of native biodiversity, restoration of ecosystem resilience, and eradication and/or control of invasive, non-native plant species such as pampas grass (*Cortaderia selloana*) within Rueda Canyon, a tributary of the San Diego River.

The project would reduce fuel and fire risk in the riparian zone, reduce pollution and sediment in the stream that feeds into the San Diego River, engage and educate local volunteers in stewardship of their nearby open spaces, and engage and educate at-risk youth participating in the Conservation Corps vocational skills programs.

In addition, the project provides nature-based educational components and engages adults and youth in stewardship of San Diego's unique ecosystems, and engages youth in a cutting edge water conservation technique (aquaponics).

9) Whether the project reflects best available science.

As described above, the proposed project will remove invasive plant species and seed sources in the upper reaches of the San Diego River watershed. It will utilize the Bradley Method (Bradley 1997) and where feasible, the DeSimone Method (DeSimone 2012) to achieve the best possible outcomes for the restored plant communities onsite. Only local sources of native plant species seed and cuttings will be used. Sources that cannot be harvested within Rueda Canyon will be verified to originate from native plants within 25 miles of the coast of San Diego County. Bio-engineered check dams will have several values including sediment trapping, flow velocity reduction, and habitat values.

According to the United Nations Food and Agricultural Organization, aquaponics uses about 10% of the water needed to grow the same plant in soil (<http://www.fao.org/3/a-i4021e/i4021e06.pdf>). Ecolife will be working with students to pilot an experiment to inform the best science available for restoring the native habitat in San Diego.

SAN DIEGO RIVER CONSERVANCY

10) The extent to which the applicant demonstrates experience successfully implementing similar projects or demonstrates appropriate and necessary partnerships to complete the project.

Since 2008, SDCL has enjoyed a productive partnership with the San Diego River Conservancy (SDRC) and the City of San Diego Open Space Division implementing volunteer educational and stewardship programs in the community of Tierrasanta. SDCL has created and sustained a canyon friends group for all Tierrasanta canyons and open space. Together they worked to restore approximately 12 acres of wetlands and transitional upland areas over the last six years in Shepherd Canyon. SDRC has provided the funding, the environmental permitting, and biologist expertise in support of this work while the City's Maintenance Assessment District (MAD) for Tierrasanta has contributed approximately \$105,000 in funds over the years. In December, 2014 and 2015, as part of this successful collaboration, the MAD funded the removal of approximately 120 large palm trees out of the canyon riparian area via helicopter.

Similarly, in City Heights, SDCL has worked with the community and volunteer programs to transform four degraded urban canyons by restoring approximately 14 acres of habitat and applying for funds to build safe, convenient trails where social trails are currently causing erosion of steep slopes. The California Strategic Growth Council awarded \$365,000 toward this project and the California Parks Dept. has awarded \$209,000 toward building an exciting "loop-trail" network in these four canyons. SDCL has had successful projects at Chollas Creek and Auburn Creek as well as in the underserved, severely disadvantaged community of City Heights.

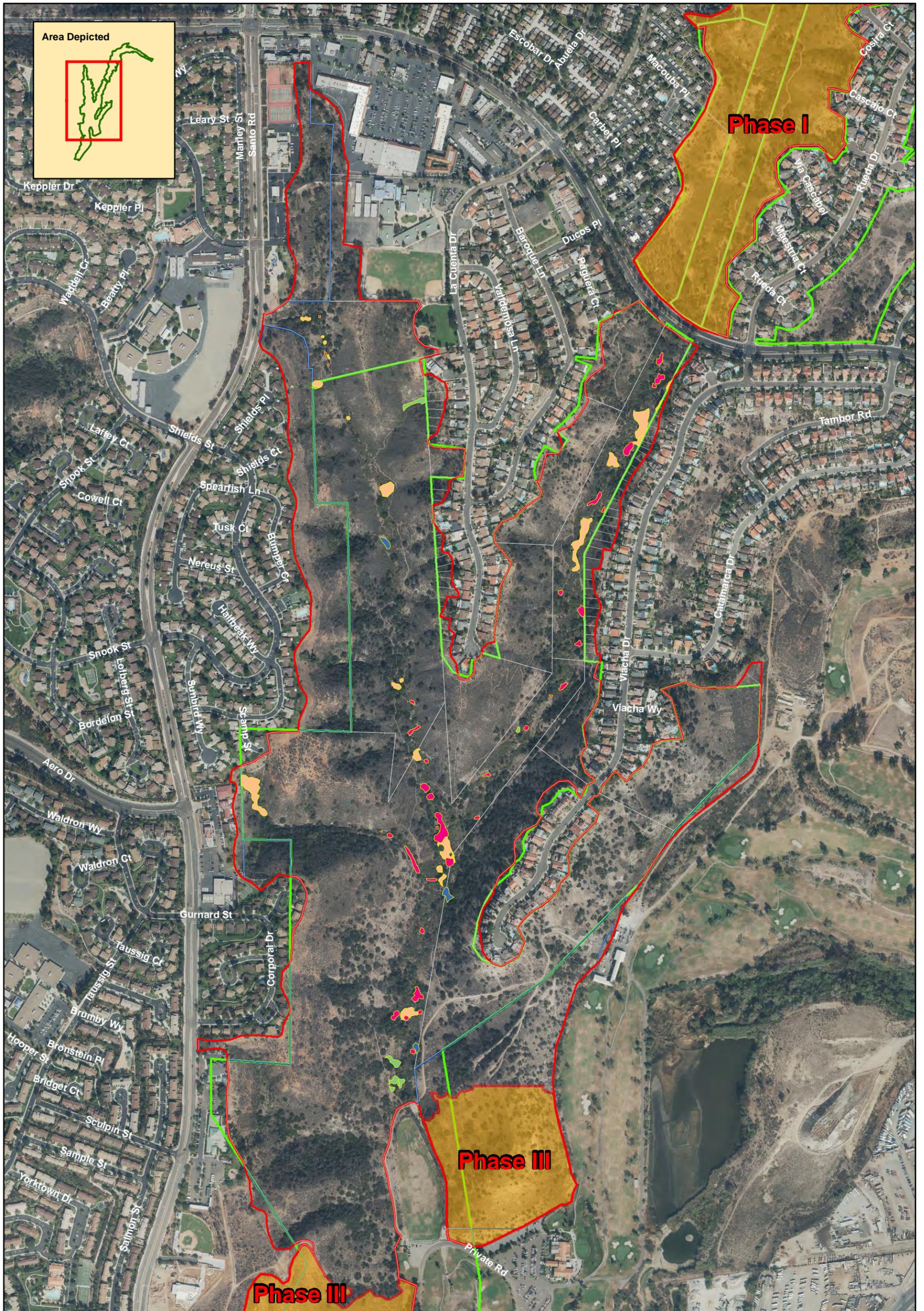
Future economic and environmental prosperity is closely linked with student success in understanding the importance of water conservation. Over the last two years, ECOLIFE has received over \$130,000 in designated funding for the aquaponics program from private donors and foundations. Over 500 classroom aquaponics systems have been distributed providing 70,000 students across the nation with environmental education. In addition, last year ECOLIFE trained 300 students in designing and building their outdoor aquaponics systems, which now serves as a "living lab" for the entire school.

11) The project is not in a disadvantaged community.

12) Matching funds from applicant.

The applicant is providing funds in the amount of \$ 72,958, or 15% of the total project costs.

COMPLIANCE WITH CEQA: The proposed project is consistent with the California Environmental Quality Act pursuant to the suite of permits obtained by the Conservancy for its Invasive Non-Native Plant removal and control program. (e.g. California Department of Fish and Wildlife 1600 permit, USACE Regional General Permit #41, USFWS Informal consultation).





SAN DIEGO CANYONLANDS

Rueda Canyon Proposed Phase II Habitat Restoration & Enhancement Areas

Map Date: 9/15/2016
 Imagery: SANDAG, 2014
 Data Sources: SANGIS, SDCL
 Contact: Eric Bowlby (eric@sdcanyonlands.org)

Restoration Types

- Enhancement via invasives removal
- Enhancement via invasive tree removal
- Enhancement via invasives removal (invasive tree removal)
- Restoration via invasives removal
- Restoration + cuttings
- Restoration + cuttings (invasive tree removal)

Ownership

- Private Property
- U.S. Government Property
- San Diego Open Space
- Rueda Canyon Geographic Extent

0 250 500 1,000 Feet



Resolution No: 16-07

**RESOLUTION OF THE GOVERNING BOARD OF
THE SAN DIEGO RIVER CONSERVANCY**

**AUTHORIZING THE EXECUTIVE OFFICER TO GRANT FUNDS FOR THE SAN DIEGO
RIVER CONSERVANCY PROPOSITION 1 GRANT PROGRAM TO
SAN DIEGO CANYONLANDS**

WHEREAS, the mission of the San Diego River Conservancy is to further the goals of its enabling legislation by conserving and restoring the lands and waters of the San Diego River watershed; and

WHEREAS, the Legislature of the State of California has provided funds under The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1) for \$7.545 billion in general obligation bonds to fund ecosystems and watershed protection and restoration, water supply infrastructure projects, including surface and groundwater storage, and drinking water protection; and

WHEREAS, Chapter 6, Section 79730 of Proposition 1 provides for competitive grants for multibenefit ecosystem and watershed protection and restoration projects in accordance with statewide priorities; and

WHEREAS, Chapter 6, Section 79731(e) of Proposition 1 provides for seventeen million dollars (\$17,000,000) to the San Diego River Conservancy, for multibenefit water quality, water supply, and watershed protection and restoration projects for the watersheds of the state; and

WHEREAS, the San Diego River Conservancy has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, San Diego River Conservancy staff has reviewed San Diego Canyonlands' Proposition 1 application and recommends the following proposal for approval.

NOW, THEREFORE, BE IT RESOLVED that the San Diego River Conservancy's Governing Board, based on the accompanying staff report and attached exhibits, hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines for the Conservancy's Proposition 1 grant program.
2. The proposed authorization is consistent with the purposes and objectives of the San Diego River Conservancy Act (Division 22.9 of the Public Resources Code, Chapter 3, and Section 32649)
3. The San Diego River Conservancy hereby authorizes the disbursement of up to \$420,453.00 (four hundred twenty thousand, four hundred fifty three dollars) in grant funds to the San Diego Canyonlands to remove and restore approximately 3.95 acres of invasive non-native vegetation in Rueda Canyon Open Space Preserve in the City of San Diego, consistent with SDRC's watershed wide permits (Project). The Project will reduce sediment runoff and filter stormwater and will improve water quality.
4. The San Diego River Conservancy appoints the Executive Officer, or her designee, as an agent to execute all agreements, grants, sub-contracts and other documents needed which may be necessary for the completion of the aforementioned project.
5. Prior to the disbursement of funds, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy a scope of work, budget and schedule; and the names and qualifications of any contractors to be employed in carrying out the project.

Approved and adopted the 10th day of November 2016. I, the undersigned, hereby certify that the foregoing Resolution Number 16-07 was duly adopted by the San Diego River Conservancy's Governing Board.

Roll Call Vote:

Yeas: _____

Nays: _____

Absent: _____

Julia L. Richards
Executive Officer

San Diego River Conservancy's Governing Board Members Roll Call Vote

Name	Ayes	Noes	Abstained
CNRA: Bryan Cash			
DOF: Eriana Ortega/Karen Finn			
DPR: Lisa Mangat			
Mayor: Brent Eidson, designee			
County Supervisor Dianne Jacob			
Scott Sherman City of San Diego Councilmember			
Ben Clay, Chair			
Ruth Hayward, Vice Chair			
Ann Haddad			
Andrew Poat			
Speaker of the Assembly: Deanna Spehn			

State of California
San Diego River Conservancy

Meeting of November 10, 2016

ITEM: **9**

SUBJECT: **EXECUTIVE OFFICER'S REPORT**
(INFORMATIONAL/ ACTION)

The following topics may be included in the Executive Officer's Report. The Board may take action regarding any of them:

- San Diego River Discovery Center permits
- Strategic Plan Update
- Kumeyaay Diegueño Land Conservancy
- Final report for tanker rollover on Morena Boulevard
- Temescal Creek acquisition (SDRP Foundation)
- Legislative Report (2014-16)



County of San Diego

ELISE ROTHSCHILD
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
Phone: (858) 505-8700 or (800) 253-9933 Fax: (858) 514-6583
www.sdcdeh.org

AMY HARBERT
ASSISTANT DIRECTOR

September 13, 2016

Mr. Rick Boatman and Mr. Rob Lamb
The SOCO Group Inc.
145 Vernon Way
El Cajon, CA 92020

Dear Mr. Boatman and Mr. Lamb:

VOLUNTARY ASSISTANCE PROGRAM, #DEH2016-LSAM-000374
TANKER ROLLOVER (MORENA BLVD. @ I-8)
MORENA BLVD. BRIDGE CROSSING OVER THE SAN DIEGO RIVER, SAN DIEGO

The Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM), reviewed the environmental investigation reports related to the above-referenced site, prepared by Geosyntec Consultants dated July 12, 2016 and waste tabulation provide by California Fish and Game. The report summarizes the site investigation and mitigation measures completed at the site. The attached closure summary provides an overview of emergency mitigation measures taken. Early in the emergency action, both soil and groundwater cleanup goals were established to protect both the public and the ecological receptors within the San Diego River flood plain and the downgradient estuary. Provided that the information presented to DEH/SAM was complete, accurate, and representative of existing site conditions, **this agency concurs that the cleanup goals established for the subject site have been met.**

Please be advised that this letter does not relieve you as the responsible party of any liability under the California Health and Safety Code or the Porter Cologne Water Quality Control Act. If previously unidentified contamination is discovered which may affect public health, safety and/or water quality, additional site assessment and cleanup may be necessary.

The DEH understands that the present land use for the Site is a Wildlife Open Space maintained by the City of San Diego and the San Diego River Conservancy. Any changes to this land use may require reassessment of the property to determine if the revised land use could result in a risk to public health.

Thank you for selecting the Department of Environmental Health as your lead agency to assist you with the progress of your environmental project. Please contact James Clay, Voluntary Assistance Program Coordinator of the Site Assessment and Mitigation Program, at (858) 505-6969, if you require additional assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Hines', with a horizontal line extending to the right.

COLLEEN HINES, Program Manager
Supervising Environmental Health Specialist
Site Assessment and Mitigation Program

Enclosure

cc: Mr. Matt Sanford, City of San Diego
Ms. Julia Richards, San Diego River Conservancy
Mr. Kris Wiese, California Fish and Wildlife, Office of Spill Prevention and Response
Ms. Kelly Dorsey, San Diego Regional Water Quality Control Board (email only)
Mr. Todd Burton, DEH Emergency Response Team (email only)

Case Closure Summary
Non-LOP or Voluntary Assistance Program

I. AGENCY INFORMATION

DATE: September 13, 2016

Agency Name: County of San Diego, Environmental Health, SAM	Address: P.O. Box 129261
City/State/ZIP: San Diego, CA 92112-9261	Phone: (858) 505-6700 FAX: (858) 514-6583
DEH Staff Person: Kevin M. Heaton	Title: Senior Hydrogeologist

II. CASE INFORMATION

Case No. DEH2016-LSAM-000374	RWQCB Case No. N/A	
Site Name: Tanker Rollover (Morena Blvd. @ I-8)	Site Address: Morena Blvd. Bridge crossing over the San Diego River, San Diego	
Property Owner Rick Boatman / Rob Lamb The SOCO Group Inc.	Address 145 Vernon Way El Cajon, CA 92020	Phone Number (619) 219-5903 / (760) 795-5400
Responsible/Requesting Parties Rick Boatman / Rob Lamb The SOCO Group Inc.	Address 145 Vernon Way El Cajon, CA 92020	Phone Number (619) 219-5903 / (760) 795-5400
Type of Case: Non Tank Case (VAP)		
Agency notification of DEH Oversight:	DTSC: May 17, 2016	RWQCB: May 17, 2016

III. SITE CHARACTERIZATION AND/OR INFORMATION

Purpose of Investigation: Tanker Truck Rollover		Substances Investigated: Diesel Fuel	
Site Characterization complete? Yes (7/12/2016)			
Monitoring Wells Installed? No	Total Number: 0	Proper Screened Interval? N/A	Number of decommissioned wells: N/A
Range of groundwater levels on the site? 0 to 4 feet (Measured)		Groundwater Flow Direction: West and toward the river	
Most Sensitive Current Use: Beneficial Groundwater Use: AGR, IND, PROC and Potential: MUN Existing Beneficial Surface Water Use: and Potential: AGR, IND, REC1, REC2			
Are Drinking Water Wells Affected? No	RWQCB Basin Number: 907.11 - Mission San Diego Hydrologic Sub Area)		
Is Surface Water Affected? Yes	Nearest Surface Water: San Diego River		
Off-Site Beneficial Use Impacts (addresses/locations): None			
TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal)	Date
Mixture Water and Diesel Fuel	21,000 gallons	Treated off site (DeMenno/Kerdoon, CA)	5/16/2016 - 5/20/2016
Soil	91-20 yard bins (1,406 tons or 906 cu-yds)	Off site disposal (Yuma Landfill, AZ)	5/16/2016 - 6/3/2014
Contaminated Vegetation	3-20 yard bins (80 cu-yds)	Off site disposal (Yuma Landfill, AZ)	5/16/2016 - 6/3/2014

Non-LOP - Underground Storage Tank Oversight handled outside the LOP

Case Closure Summary
Non-LOP or Voluntary Assistance Program

III. SITE CHARACTERIZATION AND/OR INFORMATION (Continued)

DEH2016-LSAM-000374

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS	MAXIMUM	REMAINING
<u>SOIL</u>		
Diesel Fuel (TPHd)	= 25,000 mg/kg	= 660 mg/kg
Benzene	Not analyzed*	< 0.001 mg/kg
Toluene	Not analyzed*	= 0.003 mg/kg
Ethyl Benzene	Not analyzed*	= 0.023 mg/kg
Xylene	Not analyzed*	= 0.016 mg/kg
Naphthalene	Not analyzed*	= 0.056 mg/kg
<u>SOIL (Background 1,500 feet east of bridge)</u>		
Diesel Fuel (TPHd)	---	= 420 mg/kg
Benzene	---	< 0.005 mg/kg
Toluene	---	< 0.005 mg/kg
Ethyl Benzene	---	< 0.005 mg/kg
Xylene	---	< 0.005 mg/kg
Naphthalene	---	< 0.05 mg/kg
<u>GROUNDWATER</u>		
Diesel Fuel (TPHd)	= 23,000 µg/l	= 270 µg/l
Benzene	<0.0017 µg/l	< 0.0005 µg/l
Toluene	<0.020 µg/l	< 0.001 µg/l
Ethyl Benzene	<0.013 µg/l	< 0.001 µg/l
Xylene	<0.071 µg/l	< 0.001 µg/l
Naphthalene	<0.0052 µg/l	< 0.01 µg/l
<u>SURFACE WATER (samples from between 1,000 feet up-stream and 1,000 down-stream of bridge)</u>		
Diesel Fuel (TPHd)	= 3,700 µg/l	< 100 µg/l
Benzene	<0.0005 µg/l	< 0.005 µg/l
Toluene	<0.001 µg/l	< 0.005 µg/l
Ethyl Benzene	<0.001 µg/l	< 0.005 µg/l
Xylene	<0.001 µg/l	< 0.005 µg/l
Naphthalene	<0.01 µg/l	< 0.05 µg/l
<u>SURFACE WATER (1,500 feet up-stream)</u>		
Diesel Fuel (TPHd)	---	= 150 µg/l
Benzene	---	< 0.0005 µg/l
Toluene	---	< 0.001 µg/l
Ethyl Benzene	---	< 0.001 µg/l
Xylene	---	< 0.001 µg/l
Naphthalene	---	< 0.01 µg/l
<u>SURFACE WATER (@ PCH Bridge 1,400 feet down stream)</u>		
Diesel Fuel (TPHd)	---	= 150 µg/l
Benzene	---	< 0.0005 µg/l
Toluene	---	< 0.001 µg/l
Ethyl Benzene	---	< 0.001 µg/l
Xylene	---	< 0.001 µg/l
Naphthalene	---	< 0.01 µg/l
Not analyzed* = EPA Method 8060 was not analyzed on the soil exported off site. Only total Petroleum hydrocarbons was measured by EPA Method 8015		

Case Closure Summary Non-LOP or Voluntary Assistance Program

III. SITE CHARACTERIZATION AND/OR INFORMATION (Continued)

DEH2016-LSAM-000374

Comments:

On May 13, 2016 a fuel tanker truck overturned while exiting westbound on Interstate 8 onto northbound Morena Boulevard as the truck was entering Morena Boulevard. The rollover took place on the southern end of the approximately 420-long Morena Boulevard Bridge that crosses the San Diego River and Friars Road. A total of 3,700 gallons diesel fuel spilled on the north bound lane of the bridge and flowed north across the bridge to Linda Vista Road. The diesel fuel release impacted an approximately 950 foot long section of the Morena Boulevard including the bridge crossing the San Diego River and Friars Road.

Diesel fuel from the release flowed from the tanker on the street surface to the intersection of Morena Boulevard and Linda Vista Road where it was intercepted before it could enter into a storm drain. As the diesel fuel flowed across the bridges eastern street surface and curb line, a portion of the flow was intercepted by both drainage ports and bridge expansion joints which drained into the underlying soils and the surface water of the San Diego River, Friars Road, and the eastern side north bridge embankment of Friars Road.

The SOCO Group, the responsible party, immediately activated their emergency response contractor, NRC Environmental Services, to contain the release and to recover fuel and water in the initial stages of the release. Diesel/oil sorbent booms were installed in the San Diego River both up-gradient and down-gradient of the release. Within the initial 72 hours of the spill, emergency response teams recovered a mixture of approximately 21,000 gallons of diesel fuel and diesel fuel-contaminated water.

The primary public agencies responding to and overseeing the emergency response action was the US-EPA, California Fish and Wildlife-Office of Spill Prevention and Response (OSPR), US Fish and Wildlife, California Highway Patrol, Caltrans, Army Corp of Engineers, San Diego County Environmental Health Emergency Response Team (DEH-ER) and San Diego County Environmental Health Site Assessment and Mitigation Voluntary Assistance Program (DEH-VAP).

The emergency command was headed by California Fish and Wildlife-OSPR who focused on the containment of the spilled diesel fuel and the diesel impacted surface water from impacting the San Diego River estuary located downstream of the Morena Boulevard bridge. DEH-ER assisted the response with technical assistance and logistics related to spill containment immediately following the spill to assisting in the assessment of soil impacts within the San Diego River floodplain and spill recovery. Following the immediate emergency, DEH-VAP program was brought in to provide further guidance related to the mitigation of both soil and groundwater for the protection of both the public (homeless) and the ecological receptors within the San Diego River, San Diego River floodplain, and the San Diego River estuary located downstream.

In the initial stages of the emergency, DEH-ER established soil action levels using field instruments to be greater than 100 ppm. The general areas of Diesel impacted soil were observed in the underlying areas of the bridge. This area was divided into ten areas described as the northern bridge abutment and zones A through I. Each zone is defined by the pier supports of the bridge within the San Diego River floodplain.

DEH-VAP, with the assistance of the RWQCB, developed site specific cleanup levels for both soil and groundwater to insure that the public and the ecological receptors are protected. It was also concluded that the field screening level of 100 ppm was a good field threshold to achieve the laboratory cleanup level of 1,000 mg/kg for the site. The RP's consultant developed a soil excavation work plan, which included surface water sampling (including background sampling for both soil and surface water).

From May 14, 2016 to May 31, 2016, impacted soil was excavated to a concentration below 100 ppm or to the underlying groundwater (approximately three to four feet below ground surface). Following removal of the identified diesel impacted soils, verification soil samples were collected from the excavation side-walls and from the bottom of the excavations where groundwater was not intercepted. Once the soil verification sample results confirmed that the mitigation goals had been achieved, the excavations were backfilled with two to three feet of approved imported soils to restore the grade to a level approximately one foot lower than original grade.

Following the initial 21,000 gallons of diesel fuel and diesel fuel-contaminated water being recovered during the initial days of the emergency, site cleanup included the removal of contaminated and/or damaged vegetation and contaminated soil. An estimated volume of 60 cubic-yards of contaminated vegetation and approximately 906 cubic-yards (1,406 tons) of contaminated soil was removed and disposed at a licensed disposal facility.

Of the original 3,700 gallons of diesel fuel spilled the following is the estimated volume of diesel fuel that was recovered:

<u>Material</u>	<u>Amount of Material</u>	<u>Diesel Fuel Recovered</u>
Water/Fuel Mixture	21,000 gallons	327 gallons
Soils	1,406 tons (906 cubic-yards)	2,565 gallons
Contaminated Vegetation	60 cubic-yards	Negligible
		TOTAL: 2,892 gallons

This represents an estimated recovery of 78 percent of the original volume of diesel spilled.

On June 13, 2016, GeoSyntec and DEH were on site and selected boring locations where verification hydropunch borings could be installed to obtain groundwater samples in the area of and adjacent to those areas where elevated groundwater impacts were identified during the soil excavation activities. A total of six hydropunch borings were installed and sampled on June 13, 2016. The sample results indicated that the groundwater mitigation goals had been achieved.

Case Closure Summary
Non-LOP or Voluntary Assistance Program

IV. CLOSURE

DEH2016-LSAM-000374

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes
Does corrective action protect public health for current land use? Yes Case review based on current use as: Freshwater and estuary habitat
Are there other issues DEH needs to follow up on: No
Site Management Requirements: None
Should corrective action be reviewed if land use changes? No
List Enforcement Actions Taken: N/A
List Enforcement Actions Rescinded: N/A
Is this account up to date and current? Yes

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Kevin M. Heaton, PG 4163, CHg 163	Title: Senior Hydrogeologist
Signature:  Digitally signed by Heaton, Kevin Date: 2016.09.13 08:06:17 -07'00'	Date: 9/13/2016

VI. RWQCB NOTIFICATION

Date Submitted to RWQCB: N/A - VAP	RWQCB Response: N/A - VAP	
RWQCB Staff Name: N/A	Title: N/A	Date: N/A

VII. ADDITIONAL COMMENTS, DATA, ETC.

None

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

State of California
San Diego River Conservancy

Meeting of November 10, 2016

ITEM: **10**

SUBJECT: **NEXT MEETING**

The next regularly scheduled Board meeting will be held January 12, 2017 from 2:00 to 4:00 p.m.