

Lead Agency:

Agency: San Bernardino County Flood Control District

Project Director: David Lovell

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General Project Information:

Name: Wilson Creek Channel Improvements

Description: The Wilson Creek Channel Improvement project consists of lining the current channel including the side slopes, with large diameter grouted rock slope protection. The thickness and size of the rock will be varied based upon the anticipated velocities. The rock size is anticipated to vary from ¼ ton to 1 ton and be grouted in place such that enough of the rock will protrude beyond the grout to increase the overall roughness of the channel and therefore reduce the velocities below current levels. The Wilson Creek Channel exists with an invert slope that follows the slope of the natural terrain in the area. That slope results in a high normal depth velocity. The channel is also currently affected by even higher velocities originating from upstream improved sections. These velocities cause erosion of the invert and side slopes within this reach. The San Bernardino County Flood Control District proposes to construct improvements to the bottom controls, revetment, invert and side slopes of a portion of existing Wilson Creek Channel to prevent this erosion and reduce velocity flows. The Wilson Creek Channel is an integral part of the flood protection system in the Yucaipa area. This segment of the Channel lies downstream of the Wilson Creek and Oak Glen Creek detention/recharge basins. Wilson Creek and Oak Glen Creek are two major streams in the City of Yucaipa with tributaries that extend into the San Bernardino Mountains to elevations of approximately 8500 feet above sea level, including the headwaters of the Santa Ana River Basin. The Wilson Creek System is a Regional Facility which includes the San Bernardino Valley Municipal Water District (Valley District), Yucaipa Valley Water District (YVWD), the Inland Empire Resource Conservation District (IERCD), and the City of Yucaipa (City) as partners.

Goals/Objectives:

The goal of this project is to provide a community benefit. The project includes stormwater and sediment control along Wilson Creek and will enhance groundwater recharge. The project will perform as an energy dissipater which will reduce the erosive effect of storm flows and enhance groundwater recharge. The reduction of the erosive nature of storm flows will reduce sediment transportation which will serve to improve water quality. Reducing the energy of storm flows will allow more of the native flows to be recharged. By recharging the native flows, the community will become more sustainable and rely less on imported water sources, especially during times of drought or emergency conditions.

Need: The proposed project is needed for the following reasons: 1) provide a more reliable water supply with less reliance on the State Water Project, both short-term and long term by enhancing groundwater recharge downstream of this location both actively (State Water Project during wet Northern California seasons) and passively by maximizing use of rainfall as recharge, 2) reduce sediment and debris loading downstream by slowing the water down, thus benefiting the Santa Ana River community saving flood control costs to those Disadvantaged Communities downstream, 3) provide high quality water (low salts, organics and silts compared to imported water) by increasing rainwater recharge.

Meets statutory eligibility gates of 2015 IRWM Grant Funding: Yes

IRWM Goals: The purpose of this project is to address the high velocities and erosive nature of storm flows within Wilson Creek. This project will help dissipate the energy in the storm flows and thereby enhance the groundwater recharge of the Creek downstream of the project area. This will help to accomplish the IRWM Goal of creating a more sustainable and reliable water supply.

IRWM Type

OWOW 2015 Funding

Project Type: Construction

Latitude: 34.03300 **Longitude:** -117.07654

Project Location: The Project is located approximately 80 miles inland from the Pacific Ocean, and situated in the alluvial fan/plain on the southern base of the San Bernardino Mountains at an elevation of approximately 2,235 feet above mean sea level). The Project is located within the Yucaipa California 7.5-minute series USGS topographic map, North ½ of Section 3, Township 2 South, Range 2 West. It is located approximately 1.4 miles north of Interstate 10, between Yucaipa Boulevard and Tenth Street.

Benefit Zone Area (mi2): 3

Project Benefits:

Benefits	Applicable
Water supply reliability, conservation and water-use efficiency	Yes
Stormwater capture, storage, cleanup, treatment and management	No
Removal of invasive species; wetlands creation or enhancement; acquisition, protection and restoration of open space	No
Non-point source pollution reduction, management, monitoring	No
Groundwater recharge and management	Yes
Contaminant and salt removal, reclamation, desalting and conveyance to users	No
Water banking, exchange, reclamation and improvement of water quality	No
Multipurpose flood and stormwater management programs	Yes
Watershed protection and management	No
Drinking water treatment and distribution	No
Ecosystem and fisheries restoration and protection	No

Where Benefits Accrue:

Jurisdiction: Multiple Communities

Explanation: The Project is located within the City of Yucaipa and will benefit both the City and the County. The City is supporting the proposed improvements.

Watershed/Sub-region: Single Sub-region

Explanation: This project is located within the Yucaipa Hydrologic Sub-Area in the City of Yucaipa.

Synergies: This Project is located within the boundary of the City of Yucaipa which supports the proposed improvements.

Benefits to Disadvantaged Communities (DAC) and Native Tribal Communities (NATC)

100% DAC: Yes Portion DAC: NA DAC %: 100

100% NATC: No Portion NATC: No NATC %: 0

Project area benefiting DAC (acres) : 240

Describe DAC and NATC Benefits:

This Project is located within a disadvantage community per the DWR map. The infiltration of storm water into the downstream area of the Project will provide benefit to the disadvantaged community. This Project is not on Tribal land nor does it benefit any Tribal lands.

Human Right to Water:

It is the policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. To satisfy the state policy, Wilson Creek has surface connectivity to navigable water and is by definition relatively permanent water, therefore it will be subject to Federal Clean Water Act Jurisdiction.

Environmental Justice:

The downstream area of the project will provide benefit to disadvantage communities.

Project Partners:

Agency Name	Contact	Phone	Email	Collab Planning	Direct Funding	In-Kind Service	Co-Manager
City of Yucaipa	Fermin Preciado	909-797-2489	fpreciado@yucaipa.org	Yes	No	No	No

Project Funding:

Category	Amount	Percent
Total Project Cost	\$930,000.00	100
Requested OWOW 2015 Funding	\$697,500.00	75
Match Contribution	\$232,500.00	25
Local Contribution	\$232,500.00	25
Federal Contribution	\$0.00	0
In-Kind Contribution	\$0.00	0
Other	\$0.00	0
SRF Loan	\$0.00	999

Wilson Creek Channel Improvements

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Annual O&M Costs: \$67,000.00

Funding Secured: Yes

Explain: The District has a proven history of providing accurate and effective forecasting financial documentation to be utilized over 10-years for bond management and alternative funding allocation. The Project is a priority project listed in the District's 10-Yr construction funding program. Funding for the project will be completed in budget year 15/16. The project is in the Districts Zone 3. The overall budget for the District FY 15/16 is \$155,057,383 of which Zone 3 specific budget is \$11,705,171.

O&M Funding Secured: Yes

Explain: The Project is a priority listed in the District's 10-Yr construction funding program. The project is located in the Districts Zone 3. As such, the project will receive perpetual maintenance and operation funding through the zones budget by various means of revenue such as property taxes, interests, and various fees.

Project Criteria:

Criteria	Metric	Description
Natural Hydrology Function Restoration	NA	The project includes stormwater and sediment control along Wilson Creek and will enhance groundwater recharge. The project will perform as an energy dissipater which will reduce the erosive effect of storm flows and enhance the natural hydrology.

Project Status:

Project Status: Final design (100%) completed

Est. Complete Date: 06/30/2016 Est. Operational Life (years): 50

Agency Constructed Similar Projects : Yes

CEQA Status: Complete Date: 05/08/2013

NEPA Status: Not Applicable Date: NA

Project Attachments:

Type	FileName
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Project Complete: Yes

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Project Active: Yes