Central Feeder – EBX Intertie





Central Feeder – EBX Intertie

Fact Sheet – December 2018



Estimated Cost

\$2 million

Project Summary

 Connect Central Feeder Pipeline to EBX

Partners

Conjunctive Use Partners and DWR

Integrated Regional Water Plan Objectives

- Water supply reliability
- Water quality protection

Project Status

- Completed preliminary design
- Final design pending

Project Schedule

- Anticipated design completion in 2019
- Construction to begin in 2020

For more information: Contact Wen Huang, (909) 387-9223, wenh@sbvmwd.com



Lytle Creek/Cajon Creek Mitigation Lands

Bernardino Counties, as well as record demographics to assess the health of remaining populations. The surveys will include habitat suitability assessments to determine whether appropriate habitat exists at survey locations where southwestern pond turtles are not detected. Additionally, threats from invasive species will be identified, especially nonnative turtles. Nonnative turtles and any other invasive species, such as bullfrogs, will be recorded and removed from the environment, when possible.

The survey and threat analysis will include reconnaissance surveys, trapping surveys, removal of nonnative aquatic species, and compilation of survey results into a report.

The Alliance, on behalf of the Permittee Agencies, has contributed \$30,000 (33% of the funding) to conduct southwestern pond turtle surveys and analysis as a part of the HCP conservation strategy. One population of southwestern pond turtle was confirmed after much of the potentially suitable habitat was surveyed by USGS in 2020. Additional surveys are planned for 2021, and the Alliance will continue to support regional survey efforts in the future.

5.8 Conservation Bank Credits

The Lytle Creek Conservation Bank and Cajon Creek Conservation Bank are in the alluvial floodplain and active channel of Lytle Creek and Cajon Creek, respectively, near the confluence of Lytle and Cajon Creeks (north of Interstate [I-] 210 and west of I-215). Both banks have habitat conservation values available to mitigate impacts on San Bernardino kangaroo rat and Santa Ana River woollystar.

Mitigation to offset impacts on Covered Species (and their habitat) from Covered Activities within Alluvial Fan Preserve Unit B will be satisfied by land acquisition, habitat improvement (restoration and/or rehabilitation), and management of lands within this same Preserve Unit. Mitigation lands are actively being pursued for acquisition into the HCP Preserve System; however, if additional mitigation is needed above and beyond these actions then conservation/mitigation credits in the Lytle Creek or Cajon Creek Conservation Banks may be used. If the purchase of bank credits is proposed to offset Covered Activity impacts, the HCP's Up-Front and Stay-Ahead Provisions, and the ICCP (see Section 6.5.2, *Implementing Entity Responsibilities*), will afford the USFWS the opportunity to review and comment on such a proposal in advance of bank credit purchase.

5.9 Species-Specific Conservation Strategies

The species-specific conservation strategies are the heart of the HCP conservation strategy. Each strategy is described in terms of the conservation objectives and conservation actions developed specifically for that species. The strategy describes the species-specific avoidance and minimization measures (AMMs) to be implemented in addition to the general avoidance and minimization measures for the HCP (Section 5.11, *Measures to Avoid and Minimize Effects*). The species-specific conservation strategy then describes the net benefit for the species, taking into consideration the impacts from all Covered Activities, in balance with the expected mitigation resulting from implementation of the HCP Preserve System (restoration/rehabilitation projects, acquisitions and easements, monitoring and management), avoidance and minimization measures, and other supporting research. Each species-specific conservation strategy brings together all the analysis of the HCP that is relevant to the species in order to determine the net effect on the species (and critical habitat if designated) and to demonstrate that the proposed conservation measures offset



SAR Sustainable Parks & Tributaries Water Reuse

Santa Ana River Sustainable Parks and Tributaries Water Reuse Project (RPU.10) – Phase 1

The proposed project is a joint project between RPU and Valley District to install approximately 52,000 feet of pipeline to deliver tertiary treated recycled water from the Riverside Regional Water Quality Control Plant (RWQCP) to Tributary Restoration Sites that are part of the conservation strategy of the HCP (Figure 2-17). The project is currently in the planning and design stage.

New Construction

New construction for the project includes the installation of approximately 52,000 feet of pipeline and additional facilities. Additional facilities include a storage tank, pump station, and dechlorination stations. The pipeline would also provide recycled water irrigation to several of Riverside's high-priority parks. Construction is expected to take 24 to 36 months. Following pipeline installation, temporary impact areas will be restored to pre-project conditions.

Operations

The City of Riverside is required to discharge a minimum of 25,000 afy/34.5 cfs/ 22.3 mgd to the Santa Ana River. Currently all discharge occurs at the City of Riverside's RWQCP, located immediately upstream of the Van Buren Boulevard crossing of the Santa Ana River. RPU (in partnership with Valley District/Upper SAR HCP) is proposing to change the point of discharge for a portion of this water, and RPU is also proposing to reduce the total volume discharged to the river for irrigation use.

Two sections of pipeline are proposed to be installed: West Purple Pipe and East Purple Pipe. The West Purple Pipe will run downstream from the RWQCP to provide a permanent source of water to the Tributary Restoration sites Hidden Valley Creek, Hidden Valley Wetlands, and Hole Creek. The East Purple Pipe will run upstream of the RWQCP to provide water to the Tributary Restoration sites Anza Drain, Old Ranch Creek, Tequesquite Creek, and Evans Lake. The East Purple Pipe will also convey water for landscape irrigation use. The City of Riverside proposes a reduction of approximately 4,674 afy/ 6.5 cfs/ 4.2 mgd of discharge to the Santa Ana River to be used for landscape irrigation. Approximately 4,272 afy/ 5.9 cfs/ 3.8 mgd is proposed to be conveyed via the West Purple Pipe for discharge to Hidden Valley Creek, Hidden Valley Wetlands, and Hole Creek, and approximately 5,076 afy/ 7.0 cfs/ 4.5 mgd is proposed to be conveyed through the East Purple Pipe for discharge to Tributary Restoration sites is 9,348 afy/ 12.9 cfs/ 8.3 mgd. Sites considered for delivery of recycled water discharge under this HCP include the following Tributary Restoration Sites via new pipeline constructed as part of the project:

East Purple Pipe

- Anza Drain: 728 afy/1.0 cfs/0.4 mgd. In addition to new pipeline for recycled water discharge, the construction of a dechlorination facility may be required. If needed, the facility would be constructed in previously disturbed, vacant areas. This facility would be utilized by both Anza Drain and the Old Ranch Road Channel.
- Old Ranch Creek: 1,448 afy/2.0 cfs/1.3 mgd.



Cactus Basin Connector Pipeline



Recharge in Cactus Basins

Fact Sheet – December 2018



Integrated Regional Water Plan Objectives

- Water supply reliability
- Water quality protection
- Ecosystem restoration and environmental improvement

Project Status

- Prepare environmental documentation and groundwater model simulations
- Lytle Creek Modifications and Roemer Hydroelectric Generation Facility completed
- Basins 3 and 3A completed
- Design Cactus Basins 4 and 5 completed; SBCFCD plans to begin construction in 2019
- Finalize design for the off-basin conveyance pipeline

Project Schedule

- Construction of basins and dual-purpose facilities in Basins 4 and 5 is scheduled to begin in 2019 with anticipated completion in 2020.
- Anticipated SWP recharge to begin as early as 2020.

For more information: Contact Wen Huang, (909) 387-9223, wenh@sbvmwd.com

Estimated Cost

\$5 million

Project Summary

Facilitate SWP recharge in Cactus Basins for the Rialto – Colton Groundwater Basin.

Partners

West Valley Water District, City of Rialto, San Bernardino County Flood Control District

Project Components

- Lytle Creek Turnout Modifications
- Cactus Basins Turnout
- Off-basin Conveyance Pipeline
- Basins and dual-purpose facilities



Regional Recycled Water System Phase 1



Regional Recycled Water Recharge Pipeline

Fact Sheet – December 2018



Estimated Cost

\$20 Million

Project Summary

A regional conveyance system delivered recycled water for recharge in Bunker Hill Basin – B near the City Creek and Redlands Ponds.

Partners

East Valley Water District (EVWD) and City of San Bernardino Municipal Water Department

Integrated Regional Water Plan Objectives

- Water supply reliability
- Water quality protection

Project Status

- CEQA completed as part of EVWD's Sterling Natural Resource Center Project.
- Preliminary Design Completed.
- Final Design pending.

Project Schedule

Final design scheduled to be completed in 2019. Construction scheduled to be completed by the end of 2020.

For more information: Contact Wen Huang (909)387-9223, wenh@sbvmwd.com

\\RIGEL\1_Project Files\1600...\Projects\Project Forms\Project Info Sheets\(PROJECT NAME)

Enhanced Recharge Phase 1B



ID (Phase)	Proposed Covered Activity	Type of Modification	Average Annual Amount ¹
VD.2.10 (3)	Plunge Creek – Basin 2	Groundwater Recharge	Accounted for in VD.2.06
VD.2.11 (2)	Devil Creek Diversion and Basins	Groundwater Recharge	Increase capture by 2,027 afy /2.8 cfs/1.8 mgd
VD.2.12 (1)	Waterman Basin Spreading Grounds Channel Maintenance	Groundwater Recharge	Increase capture by 1,448 afy/2.0 cfs/1.3 mgd
VD.2.13 (2)	Twin Creek Spreading Grounds	Groundwater Recharge	Increase capture by 1,955 afy/2.7 cfs/1.8 mgd
VD.3 (1)	Enhanced Recharge Project – Seven Oaks Dam Water Conservation Improvements	Groundwater Recharge	Phase 1b – Increase capture by 3,692 afy/5.1 cfs/3.3 mgd
WD.1 (1, 3) ^{3, 4}	SBMWD Recycled Water Project	Effluent Discharge Reduction	HCP Phase 1 – 9,556 afy/13.2 cfs/8.5mgd reduction in flow from RIX to River HCP Phase 3 – 3,620 afy/5 cfs/ 3.2 mgd reduction (minimum 16,651 afy/23 cfs/14.9 mgd discharge)
West.3 (1)	Recycled Water Live Stream Discharge	Groundwater Recharge*	6,733 afy/9.3 cfs/6.0 mgd capacity
West.6 (1)	Arlington Basin Water Quality Improvement Project	Groundwater Recharge*	1,810 – 2,534 afy/ 2.5–3.5 cfs/16–2.3 mgd

¹ Average annual amount is the volume of water estimated to be diverted, captured, discharged over a year in (i.e., acrefeet per year).

² The source of the water captured by new recharge basins is urban runoff that currently flows to Lake Evans, where it percolates and evaporates. As such, increasing capture of this water would not directly affect surface hydrology of the mainstem of Santa Ana River.

³ The Phase 1 reduction includes both the Sterling Natural Resources Center (SNRC) and San Bernardino Municipal Water Department (SBMWD) reductions identified in State Water Resources Control Board (SWRCB), Division of Water Rights wastewater petition Orders WW0095 and WW0059 (available on the SWRCB website at

<u>https://www.waterboards.ca.gov/</u>). The SNRC reduction totals approximately 5 mgd of the Phase 1 reduction, with the remainder associated with the SBMWD reduction.

⁴ Wastewater petition order WW0059 and SBMWD's Settlement Agreements with the City of Riverside and the Center for Biological Diversity (available on the SWRCB website at <u>https://www.waterboards.ca.gov/</u>) stipulate a minimum discharge of 28.6 cfs (18.5 mgd) between June 1 and October 15 of each year.

afy = acre-feet per year; cfs= cubic feet per second; mgd = million gallons per day; RIX = Rapid Infiltration and Extraction facility; RMPU = Recharge Master Plan Update; RWQCP = Riverside Regional Water Quality Control Plant; SBMWD = San Bernardino Municipal Water Department.

2.1.1 Water Reuse Projects

This section describes projects related to construction of new water treatment plants and associated facilities and activities for operating and maintaining existing and new water treatment plants and associated facilities. The location of these activities is shown on Figure 2-1.

Maintenance

All of the aforementioned basins will be maintained for water recharge purposes, including sediment removal (removal of silt and clay). The general O&M activities common to most of the Permittee Agencies are described in Section 2.1.6.

Badger Basins (VD.2.14) - Phase 4

The Badger Basins are located north of Campus Circle and east of the intersection of Badger Canyon Road and West Frontline Road in the City of San Bernardino (Figure 2-12). The facility is owned by SBCFCD.

Note: Project activities are no longer proposed at this location; however, because of the late timing associated with removal of this project (the decision was made very late in the HCP process), impacts associated with this project are still included in the HCP. This project had no hydrologic impacts, but ground-disturbing impacts were identified, and remain in the HCP impact assessment.

Enhanced Recharge Project – Seven Oaks Dam Water Conservation Improvements (VD.3) – Phase 1

The Enhanced Recharge Project – Seven Oaks Dam Water Conservation Improvements is located in the wash area of the mainstem of the Santa Ana River downstream of Seven Oaks Dam. It is divided into three parts. Parts 1a and 2 are covered under separate permits or the Wash Plan HCP and include modification of existing facilities for improved sediment management and structure protection (Parts 1a and 1b) and extension of the existing Water Conservation District canal, and construction of new spreading basins for groundwater recharge (Part 2). Part 3 is proposed as a Covered Activity under this HCP and described below (Figure 2-13). Refer to Table 2-2 for the average annual hydrological change for this Covered Activity.

Change in Operations of Water Diversion Structure

Valley District would change operations at the Cuttle Weir water diversion structure from the existing diversion of 141,174 afy/195 cfs/126 mgd so that up to 361,983 afy/500 cfs/323.2 mgd of Santa Ana River water can be diverted into the Conservation District's canal, the sedimentation basin, and the enhanced spreading basins for groundwater recharge into the San Bernardino Basin Area. The water may also be delivered for direct use through the first part of the Plunge Pool Pipeline. Valley District has the rights to 1,250 cfs, but this HCP only address the recharge of 500 cfs. The Cuttle Weir is an existing concrete structure located downstream of Seven Oaks Dam, where Santa Ana Canyon Road crosses the Santa Ana River.

Plunge Pool Pipeline

When conditions warrant (e.g., groundwater mounding, liquefaction), all or a portion of the 500 cfs would be sent to the inland feeder pipeline for groundwater recharge via the Plunge Pool Pipeline. The Plunge Pool Pipeline would connect approximately 2 miles of 98-inch-diameter pipe to the existing Inland Feeder pipeline owned and operated by the Metropolitan Water District of Southern California (Metropolitan).



Enhanced Recharge in the Santa Ana River Spreading Basins, Phase 1B

Fact Sheet – October 2020



Estimated Cost

\$50 million

Project Summary

Improve and construct canals and recharge ponds to accommodate up to 500 cfs and 80,000 acre-ft in a single year of Santa Ana River water diverted under joint permits with Western Municipal Water District.

Partners

Western Municipal Water District, Riverside Public Utilities, and San Bernardino Valley Water Conservation District

Integrated Regional Water Plan Objectives

- Water supply reliability
- Water quality protection
- Ecosystem restoration and environmental improvement

Project Status

- Plans and Specifications 90% Complete.
- Begin construction in mid-2021.

Project Schedule

Construction of Phase 1B Project is pending on obtaining permits from resources agencies.

For more information: Contact Wen Huang, (909) 387-9223, wenh@sbvmwd.com



Calimesa Aquifer Storage & Recovery Project Phase 1

Upper Santa Ana River Watershed 2020 Integrated Regional Urban Water Management Plan

Call for Projects – Project Submittal Form

Please email all forms and supporting documents to Dawn Flores (<u>dflores@woodardcurran.com</u>) and Laine Carlson (<u>lcarlson@wsc-inc.com</u>)

Please check one. This form is to:

Update an existing project in the 2015 IRWMP/current project list If updating an existing project, only the information that has changed needs to be provided; other sections can be left blank

Submit a new project to be included in the 2020 IRUWMP Note: new projects can be submitted at any time and will be added to the list once approved.

1. Contact Information

General Information		
Project Name	Calimesa Aquifer Storage and Recovery	
Lead Agency or Organization	Yucaipa Valley Water District	
Organization Address	12770 Second Street, Yucaipa CA 92399	
Project Partners (if applicable)		
Contact Information		
Primary Contact Name	Matthew Porras	
Organization	Yucaipa Valley Water District	
Title	Implementation Manager	
Phone Number	909.790.3300	
Email	mporras@yvwd.us	

2. Project Description

Project Information	
Readiness for implementation (conceptual or developed)	Conceptual with some developed
Type (planning or implementation)	Implementation
Location (address, coordinates and/or other location description to describe the project area)	City of Calimesa, 33°58'24.57"N, 117° 2'54.29"W

Project Description

The Yucaipa Valley Water District will be installing four injection wells and two extraction wells as an Aquifer Storage and Recovery Facility in the City of Calimesa. This system will provide for the recharge of fully treated (reverse osmosis) recycled water to provide additional drinking water supplies and to meet peak recycled water demands by reversing the flow of water from the injection wells.

Relationship to other Projects in the Region

The Aquifer Storage Recovery project would assist with efforts toward resolving regional water supply challenges for the region by increasing local water supply's operational flexibility within the upper Santa Ana River.

Has there been any coordination with other entities within or outside of the Region? No.

3. Project Benefits

Check the benefits the project will provide. All projects must provide one or more benefits. Project components that will ensure these benefits should be included in the Project Description.

Improve Water Supply Reliability

- \boxtimes Reduce demand for water
- \boxtimes $% \left({{\operatorname{Increase}}} \right)$ utilization of local supplies
- □ Increase storage of water in groundwater basins during wet years
- ☑ Improve system resiliency and the ability to respond to emergency supply interruptions
- $\ensuremath{\boxtimes}$ Ensure equitable access to clean drinking water

Balance Flood Management and Increase Stormwater Recharge

- □ Utilize flood control retention/detention basins for recharge
- □ Reduce the risk of flooding while providing multiple benefits, where possible
- □ Improve flood control or reduce the risk of flooding in disadvantaged communities
- □ Improve surface water quality and increase recharge by capturing stormwater in urban areas

Improve Water Quality

- □ Reduce or eliminate violations of drinking water quality standards
- □ Improve surface and groundwater quality by treating water supply
- □ Manage total dissolved solids and nitrogen in groundwater
- □ Ensure equivalent water quality services for disadvantaged communities

Improve Habitat and Open Space

- □ Improve habitat and open space
- □ Increase recreation and public access in and around local waterways

Address Climate Change through Adaptation and Mitigation

- Adapt to the impacts of climate change on water resources
- Reduce or offset energy consumption or GHG emissions associated with water and wastewater systems

Additional Benefits

Check which Disadvantaged Communities (DAC), Native American Tribal Communities and Environmental Justice concerns are features of the project:

□ Benefits to DACs. Explain:

□ Benefits to Native American Tribal communities. Explain:

□ Addresses Environmental Justice¹ concerns. Explain:

¹ Environmental Justice is defined by State Law as: "the fair treatment and meaningful involvement of all people regardless of race, color, sex national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies."

4. Project Schedule

Provide the current status of the project (e.g., initial study, planning, design, environmental review, in construction) and include a timeline for the project.

The project is anticipated to begin in the last quarter of 2022.

5. Project Costs and Funding

Project Costs

\$6,250,000.00

Funding

The project's funding has not been fully determined at this time.

Basis for Project Cost

The project cost was estimated using consultant firms estimates.

6. Supporting Information

Technical Feasibility

Technical studies have already been completed for the project. Geoscience has conducted recharge studies on the site to determine the optimal location for the injection wells.

Economic Feasibility

An economic analysis has not been done at this time.

7. Other Considerations

Yucaipa Valley Water District adopted the latest Upper Santa Ana River Watershed 2015 Integrated Urban Water Management Plan and will adopt the 2020 Integrated Regional Urban Water Management Plan



Calimesa Regional Recycled Water Pipeline Project

Upper Santa Ana River Watershed 2020 Integrated Regional Urban Water Management Plan

Call for Projects – Project Submittal Form

Please email all forms and supporting documents to Dawn Flores (<u>dflores@woodardcurran.com</u>) and Laine Carlson (<u>lcarlson@wsc-inc.com</u>)

Please check one. This form is to:

Update an existing project in the 2015 IRWMP/current project list If updating an existing project, only the information that has changed needs to be provided; other sections can be left blank

Submit a new project to be included in the 2020 IRUWMP Note: new projects can be submitted at any time and will be added to the list once approved.

1. Contact Information

General Information		
Project Name	Calimesa Recycled Water Conveyance Project	
Lead Agency or Organization	Yucaipa Valley Water District	
Organization Address	12770 Second Street, Yucaipa CA 92399	
Project Partners (if applicable)		
Contact Information		
Primary Contact Name	Matthew Porras	
Organization	Yucaipa Valley Water District	
Title	Implementation Manager	
Phone Number	909.790.3300	
Email	mporras@yvwd.us	

2. Project Description

Project Information	
Readiness for implementation (conceptual or developed)	Developed
Type (planning or implementation)	Implementation
Location (address, coordinates and/or other location description to describe the project area)	The project is a linear pipeline mainly located in Calimesa Boulevard. 33°58'57.03"N, 117° 3'5.16"W

Project Description

The proposed project would involve construction of approximately 18,500 linear feet (3.5 miles) of 24inch-diameter waterline to connect an existing YVWD waterline to customers in the Calimesa area. The intent of the proposed project is to deliver recycled water customers to offset current water supply shortages.

Relationship to other Projects in the Region

The SAGE project would assist with efforts toward resolving regional water supply challenges for the region by increasing local water supply operational flexibility within the upper Santa Ana River.

Has there been any coordination with other entities within or outside of the Region? No.

3. Project Benefits

Check the benefits the project will provide. All projects must provide one or more benefits. Project components that will ensure these benefits should be included in the Project Description.

Improve Water Supply Reliability	

- Reduce demand for water
- ☑ Increase utilization of local supplies
- □ Increase storage of water in groundwater basins during wet years
- ☑ Improve system resiliency and the ability to respond to emergency supply interruptions
- ☑ Ensure equitable access to clean drinking water

Balance Flood Management and Increase Stormwater Recharge

- Utilize flood control retention/detention basins for recharge
- □ Reduce the risk of flooding while providing multiple benefits, where possible
- □ Improve flood control or reduce the risk of flooding in disadvantaged communities
- □ Improve surface water quality and increase recharge by capturing stormwater in urban areas

Improve Water Quality

- Reduce or eliminate violations of drinking water quality standards
- □ Improve surface and groundwater quality by treating water supply
- Manage total dissolved solids and nitrogen in groundwater
- □ Ensure equivalent water quality services for disadvantaged communities

Improve Habitat and Open Space

- □ Improve habitat and open space
- □ Increase recreation and public access in and around local waterways

Address Climate Change through Adaptation and Mitigation

- □ Adapt to the impacts of climate change on water resources
- Reduce or offset energy consumption or GHG emissions associated with water and wastewater systems

Additional Benefits

Check which Disadvantaged Communities (DAC), Native American Tribal Communities and Environmental Justice concerns are features of the project:

- $\hfill\square$ Benefits to DACs. Explain:
- □ Benefits to Native American Tribal communities. Explain:
- □ Addresses Environmental Justice¹ concerns. Explain:

¹ Environmental Justice is defined by State Law as: "the fair treatment and meaningful involvement of all people regardless of race, color, sex national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies."

4. Project Schedule

Provide the current status of the project (e.g., initial study, planning, design, environmental review, in construction) and include a timeline for the project.

The project is anticipated to begin in the last quarter of 2021.

5. Project Costs and Funding

Project Costs \$5,500,000.00

Funding

A portion of the funding is coming from the State Revolving Fund.

Basis for Project Cost

The project has been designed and the environmental is complete.

6. Supporting Information

Technical Feasibility

A design has been completed.

Economic Feasibility

An economic analysis has not been done at this time but a portion of the funding will come from the State Revolving Fund.

7. Other Considerations

Yucaipa Valley Water District adopted the latest Upper Santa Ana River Watershed 2015 Integrated Urban Water Management Plan and will adopt the 2020 Integrated Regional Urban Water Management Plan



R-12.5 Recycled Water Reservoir

YUCAIPA VALLEY WATER DISTRICT
CAPITAL IMPROVEMENT PROGRAM

Project	R 12.5 Recycled Water Reservoirs (2 – 0.5 MG)		
Fund	Recycled	Projected Dates	2021-22
Elements #	95916	Priority	Critical

FUNDING SOURCE		
Reserves/Depreciation	on	\$ 0
Development Impact	Fees	\$ 2,397,750
Federal Participation		\$ 0
State Participation		\$ 0
Bond Financing		\$ 0
Local Matching		\$ 0
Other Funds		\$ 0
	Total	\$ 2,397,750

Project Description: Installation of 2 recycled water reservoirs located within the commercial warehouse development (I-10 Logistics) fronting Cherry Valley Boulevard in the City of Calimesa. The reservoirs will be connected to the 12 zone recycled system and will be 500,000 gallons each. The location of this site will balance the 12 zone recycled demand flows as the nearest recycled reservoir in the 12 zone is over 5 miles to the north in Chapman Heights.







Wochholz Regional Water Recycling Facility Energy Resiliency Project

Upper Santa Ana River Watershed 2020 Integrated Regional Urban Water Management Plan

Call for Projects – Project Submittal Form

Please email all forms and supporting documents to Dawn Flores (<u>dflores@woodardcurran.com</u>) and Laine Carlson (<u>lcarlson@wsc-inc.com</u>)

Please check one. This form is to:

Update an existing project in the 2015 IRWMP/current project list If updating an existing project, only the information that has changed needs to be provided; other sections can be left blank

Submit a new project to be included in the 2020 IRUWMP Note: new projects can be submitted at any time and will be added to the list once approved.

1. Contact Information

General Information		
Project Name	Energy Resiliency Project - HWRWRF	
Lead Agency or Organization	Yucaipa Valley Water District	
Organization Address	12770 Second Street, Yucaipa CA 92399	
Project Partners (if applicable)		
Contact Information		
Primary Contact Name	Matthew Porras	
Organization	Yucaipa Valley Water District	
Title	Implementation Manager	
Phone Number	909.790.3300	
Email	mporras@yvwd.us	

2. Project Description

Project Information	
Readiness for implementation (conceptual or developed)	Developed
Type (planning or implementation)	Implementation
Location (address, coordinates and/or other location description to describe the project area)	880 County Line Road, Yucaipa CA 92399

Project Description

An energy independent microgrid system consisting of solar power arrays, peak battery backup and a natural gas generator will be installed at the Regional Water Recycling Facility to protect the facility from Public Safety Power Shutoff events and emergency power outages. This equipment will be installed at 880 West County Line Road, Yucaipa.

Relationship to other Projects in the Region

The Energy Resiliency Project will reduce the energy load on the regional energy needs. The wastewater plant uses large amounts of energy to run the reverse osmosis. Having an alternative energy supply will assist with energy efficiency.

Has there been any coordination with other entities within or outside of the Region? No.

3. Project Benefits

Check the benefits the project will provide. All projects must provide one or more benefits. Project components that will ensure these benefits should be included in the Project Description.

Improve Water Supply Reliability

- □ Reduce demand for water
- □ Increase utilization of local supplies
- □ Increase storage of water in groundwater basins during wet years
- ☑ Improve system resiliency and the ability to respond to emergency supply interruptions
- □ Ensure equitable access to clean drinking water
- Balance Flood Management and Increase Stormwater Recharge
- □ Utilize flood control retention/detention basins for recharge
- □ Reduce the risk of flooding while providing multiple benefits, where possible
- □ Improve flood control or reduce the risk of flooding in disadvantaged communities
- □ Improve surface water quality and increase recharge by capturing stormwater in urban areas

Improve Water Quality

- □ Reduce or eliminate violations of drinking water quality standards
- □ Improve surface and groundwater quality by treating water supply
- □ Manage total dissolved solids and nitrogen in groundwater
- □ Ensure equivalent water quality services for disadvantaged communities

Improve Habitat and Open Space

- Improve habitat and open space
- □ Increase recreation and public access in and around local waterways

Address Climate Change through Adaptation and Mitigation

- Adapt to the impacts of climate change on water resources
- Reduce or offset energy consumption or GHG emissions associated with water and wastewater systems

Additional Benefits

Check which Disadvantaged Communities (DAC), Native American Tribal Communities and Environmental Justice concerns are features of the project:

□ Benefits to DACs. Explain:

□ Benefits to Native American Tribal communities. Explain:

□ Addresses Environmental Justice¹ concerns. Explain:

¹ Environmental Justice is defined by State Law as: "the fair treatment and meaningful involvement of all people regardless of race, color, sex national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies."

4. Project Schedule

Provide the current status of the project (e.g., initial study, planning, design, environmental review, in construction) and include a timeline for the project.

The project is anticipated to begin in the last quarter of 2022.

5. Project Costs and Funding

Project Costs \$25,000,000.00

Funding

The project will be funded by the energy offset from the alternative energy.

Basis for Project Cost

The project cost was estimated using an energy consultant.

6. Supporting Information

Technical Feasibility

A design has been completed.

Economic Feasibility

An economic analysis has not been done at this time but the District will not be paying for the project costs since the alternative energy source will offset the current and future energy costs.

7. Other Considerations

Yucaipa Valley Water District adopted the latest Upper Santa Ana River Watershed 2015 Integrated Urban Water Management Plan and will adopt the 2020 Integrated Regional Urban Water Management Plan



Yucaipa Valley Regional Water Filtration Facility Energy Resiliency Project

Upper Santa Ana River Watershed 2020 Integrated Regional Urban Water Management Plan

Call for Projects – Project Submittal Form

Please email all forms and supporting documents to Dawn Flores (<u>dflores@woodardcurran.com</u>) and Laine Carlson (<u>lcarlson@wsc-inc.com</u>)

Please check one. This form is to:

Update an existing project in the 2015 IRWMP/current project list If updating an existing project, only the information that has changed needs to be provided; other sections can be left blank

Submit a new project to be included in the 2020 IRUWMP Note: new projects can be submitted at any time and will be added to the list once approved.

1. Contact Information

General Information		
Project Name	Energy Resiliency Project - YVRWFF	
Lead Agency or Organization	Yucaipa Valley Water District	
Organization Address	12770 Second Street, Yucaipa CA 92399	
Project Partners (if applicable)		
Contact Information		
Primary Contact Name	Matthew Porras	
Organization	Yucaipa Valley Water District	
Title	Implementation Manager	
Phone Number	909.790.3300	
Email	mporras@yvwd.us	

2. Project Description

Project Information	
Readiness for implementation (conceptual or developed)	Conceptual
Type (planning or implementation)	Implementation
Location (address, coordinates and/or other location description to describe the project area)	35477 Oak Glen Road, Yucaipa, CA 92399

Project Description

An energy independent microgrid system consisting of solar power arrays, peak battery backup and a natural gas generator will be installed at the Yucaipa Valley Regional Water Filtration Facility to protect the facility from Public Safety Power Shutoff events and emergency power outages. This equipment will be installed at Yucaipa, CA 92399

Relationship to other Projects in the Region

The Energy Resiliency Project will reduce the energy load on the regional energy needs. The drinking water plant uses large amounts of energy to run the filters. Having an alternative energy supply will assist with energy efficiency.

Has there been any coordination with other entities within or outside of the Region? No.

3. Project Benefits

Check the benefits the project will provide. All projects must provide one or more benefits. Project components that will ensure these benefits should be included in the Project Description.

Improve Water Supply Reliability

- □ Reduce demand for water
- □ Increase utilization of local supplies
- □ Increase storage of water in groundwater basins during wet years
- ☑ Improve system resiliency and the ability to respond to emergency supply interruptions
- □ Ensure equitable access to clean drinking water
- Balance Flood Management and Increase Stormwater Recharge
- □ Utilize flood control retention/detention basins for recharge
- □ Reduce the risk of flooding while providing multiple benefits, where possible
- □ Improve flood control or reduce the risk of flooding in disadvantaged communities
- □ Improve surface water quality and increase recharge by capturing stormwater in urban areas

Improve Water Quality

- □ Reduce or eliminate violations of drinking water quality standards
- □ Improve surface and groundwater quality by treating water supply
- □ Manage total dissolved solids and nitrogen in groundwater
- □ Ensure equivalent water quality services for disadvantaged communities

Improve Habitat and Open Space

- Improve habitat and open space
- □ Increase recreation and public access in and around local waterways

Address Climate Change through Adaptation and Mitigation

- Adapt to the impacts of climate change on water resources
- Reduce or offset energy consumption or GHG emissions associated with water and wastewater systems

Additional Benefits

Check which Disadvantaged Communities (DAC), Native American Tribal Communities and Environmental Justice concerns are features of the project:

□ Benefits to DACs. Explain:

□ Benefits to Native American Tribal communities. Explain:

□ Addresses Environmental Justice¹ concerns. Explain:

¹ Environmental Justice is defined by State Law as: "the fair treatment and meaningful involvement of all people regardless of race, color, sex national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies."

4. Project Schedule

Provide the current status of the project (e.g., initial study, planning, design, environmental review, in construction) and include a timeline for the project.

The project is anticipated to begin in the last quarter of 2023.

5. Project Costs and Funding

Project Costs \$20,000,000.00

Funding

The project will be funded by the energy offset from the alternative energy.

Basis for Project Cost

The project cost was estimated using an energy consultant.

6. Supporting Information

Technical Feasibility

A design has not been completed. The wastewater facility will be constructed first then the alternative energy planning for the drinking water facility will begin.

Economic Feasibility

An economic analysis has not been done at this time but the District will not be paying for the project costs since the alternative energy source will offset the current and future energy costs.

7. Other Considerations

Yucaipa Valley Water District adopted the latest Upper Santa Ana River Watershed 2015 Integrated Urban Water Management Plan and will adopt the 2020 Integrated Regional Urban Water Management Plan



Salinity & Groundwater Enhancement Project

YUCAIPA VALLEY WATER DISTRICT CAPITAL IMPROVEMENT PROGRAM

Project	Salinity and Groundwater Enhancement (SAGE)		
Fund	WastewaterProjected Dates2020-22		2020-22
Elements #	95290	Priority	Critical

FUNDING SOURCE			
Reserves/Depreciation			\$0
Development Impact Fee	es		\$0
Federal Participation			\$0
State Participation			\$0
Bond Financing			\$0
Local Matching		\$ 21,	275,000
Other Funds			\$0
-	Total	\$ 21,	275,000



Project Description: The primary objectives of the proposed project include the following:



- Expand the WRWRF from a 6 mgd plant to an 8 mgd plant
- Expand the RO system from 2.25 mgd to a full 7.0 mgd.
- Add Advanced Oxidation Processes to produce recycled water that will meet Groundwater Recharge Regulation Article 5.2
- Increase RO concentration recovery from 80 percent to 92 percent
- Treat and reuse wastewater for multiple beneficial uses to meet existing and future needs within the YVWD's service area
- Increase groundwater replenishment opportunities in the Yucaipa subbasin with recycled water resources
- Increase the use of recycled water to continue efforts toward resolving regional water supply challenges in a cost effective and environmentally responsible manner
- Increase local water supply operational flexibility within the upper Santa Ana River watershed region to advance the integrated water management objectives of the District and the region

The construction of the SAGE project will occur in two phases. Phase 1 will include the necessary modification in facilities, buildings and associated equipment for operation at a capacity of up to 6.0 mgd. Phase 2 will increase to operating capacity to 8.0 mgd. The District estimates Phase 1 will be complete by September 2022 to meet this grants requirement and therefore, the District is applying for 25 percent of Phase 1, Phase 2 will take an additional 18 to 24 months to complete. This project will increase the production of recycled water from 2.25 mgd to 4 mgd, producing an additional 1,680 acre-feet of recycled water annually at the completion of the SAGE project. At maximum capacity of wastewater treatment, the Wochholz Regional Water Recycling Facility (WRWRF) plant production of recycled water is estimated to be 5,040 acre-feet annually.



R-10.3 Recycled Water Booster to R-11.4 Recycled Water Reservoir

YUCAIPA VALLEY WATER DISTRICT CAPITAL IMPROVEMENT PROGRAM

Project	R 10.3 Recycled Water Booster to R 11.4 Recycled Water Reservoir		
Division	Recycled	Projected Dates	2022-23
Elements #	TBD	Priority	Important

FUNDING SOURCE			
Reserves/Depreciation	on	\$ 2,328,750	
Development Impact	Fees	\$ 0	
Federal Participation	l	\$ 0	
State Participation		\$ 0	
Bond Financing		\$ 0	
Local Matching		\$ 0	
Other Funds		\$ 0	
	Total	\$ 2,328,750	

Project Description: Installation of a recycled water booster station to the existing recycled water 10.3 reservoir and booster



LOCATION MAP

complex. The existing 10.3 reservoir and booster complex includes the R-10.3.1 and R-10.3.2 recycled water tanks, each with a capacity of 1-million gallons. The two boosters on-site (B-10.3.1, B-10.3.2) both pump to the 12 zone. This project will add two boosters that are designed to pump to the 11 zone within the recycled system. The existing electrical system at the site will need to be upgraded to accommodate for the new pumping equipment.



24" Recycled Water Pressure Zone 11 Regional Pipeline

YUCAIPA VALLEY	WATER DISTRICT
CAPITAL IMPROVE	MENT PROGRAM

Project	24" Recycled Water Pressure Zone 11 Regional Pipeline		
Division	Recycled Projected Dates 2022-23		2022-23
Elements #	TBD	Priority	Important

FUNDING SOURCE			
Reserves/Depreciation	on	\$ 10,045,250	
Development Impact	Fees	\$ 0	
Federal Participation		\$ 0	
State Participation		\$ 0	
Bond Financing		\$ 0	
Local Matching		\$ 0	
Other Funds		\$ 0	
	Total	\$ 10,045,250	

Project Description: The installation of approximately 12,000 linear feet of 11 zone recycled water pipeline connecting the future booster station at R-10.3 and suppling the future 11 zone pipeline to be constructed by others that will ultimately connect to the future R-11.4 reservoir site.

The pipeline will be constructed of 24-inch ductile iron pipe and will follow a similar alignment to the sewer infrastructure in the area.





3.0 MG R-11.4 Recycled Water Reservoir

YUCAIPA VALLEY WATER DISTRICT CAPITAL IMPROVEMENT PROGRAM

Project	3.0 MG R 11.4 Recycled Water Reservoir		
Division	Recycled Projected Dates 2022-23		2022-23
Elements #	TBD	Priority	Important

FUNDING SOURCE		
Reserves/Depreciation	1	\$ 0
Development Impact F	ees	\$ 0
Federal Participation		\$ 0
State Participation		\$ 0
Bond Financing		\$ 0
Local Matching		\$ 0
Other Funds		\$ 5,111,750
	Total	\$ 5.111.750

Project Background: Developments in the City of Calimesa will require additional drinking water and recycled water storage capacity within the eleven (11) pressure zone of each respective distribution system. The future R-11.4 Reservoir Complex will be funded by the participating developers and built by the District.



<u>Project Overview:</u> The project will consist of a 3-million-gallon drinking water reservoir and a 2.5million-gallon recycled water reservoir. The elevation of the reservoir site will need to be adjusted to meet the existing high-water level of the existing eleven (11) zone.

<u>Related Project Requirements:</u> Off-site pipelines will need to be installed to provide service to the reservoir complex.