Mojave Integrated Regional Water Management Plan

Project Identification – Long Form

To the extent possible this form should be electronically filled out and e-mailed to **comments@mywaterplan.com.** Items denoted with an asterisk are required.

PART 1: LEAD IMPLEMENTING AGENCY/ORGANIZATIONAL INFORMATION

Please provide the following information regarding the project sponsor and proposed project.

Implementing Agency/ Organization / Individual: *

City of Victorville Water District

Agency / Organization / Individual Address:

14343 Civic Drive, Victorville, CA. 92392

Possible Partnering Agencies:

Mojave Water Agency

Name:*

Steven Ashton

Title:

Water Manager

Telephone:* 760-955-2482

Fax: 760-269-0088

Email:*

sashton@victorvilleca.gov

Website:

www.victorvilleca.gov

Project Name:*

R3 Turnout #5

Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.

Project Latitude: 34.2655 N **Project Longitude:** 117.2152 W

Location Description:	In the area of Amethyst Rd. and Mesa Road in the City of Victorville.

Project Cooperating Agency(ies)/Organization(s)/Individual(s):

- Mojave Water Agency
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Project Status (e.g., new, ongoing, expansion, new phase):

Expansion of R3 Project

Project Type (e.g., Conceptual, Design, Feasibility Study, Implementable Project, Implementable Program):

Design

*PART 2: PROJECT NEED**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Mojave IRWM Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

The Victorville Water District (VWD) currently has two connections to the R3 Project (TO #3 and TO #6). The City of Adelanto will soon be connecting to R3 TO #7, which is at the same location of TO #6. Currently, due to hydraulic issues, the VWD must keep our Highway 395 storage tanks at approximately mid-level or lower and MWA must keep the R3 west storage tank (Le Panto Tank) full for the VWD to receive adequate flow from TO #6. Hydraulic modeling has shown that once the City of Adelanto connects to TO #7, VWD's ability to receive water from TO #6 will be further substantially impeded.

TO #5 will provide much more flexibility for VWD. At the site of the proposed connection of TO #5 to VWD's system, VWD will be able to utilize R3 water to supplement all of VWD's system. The proposed connection is at the storage tank site serving the highest pressure zone for the previous Victor Valley Water District's system (WID 1) allowing R3 to serve lower zones through PRV's, and a new booster station at the site (currently out to bid) will allow the VWD to be able to utilize R3 water to supplement all of the higher pressure zones of the previous Baldy Mesa Water District (WID 2).

Additionally, R3 water at the TO #5 site can be utilized for blending to meet Arsenic and future Chromium 6 compliance. The groundwater well field in the proposed TO #5 area currently pump into a raw water line where blending takes place to meet Arsenic compliance. An R3 connection at this site could be utilized to greatly assist with the blending scheme since R3 water is very low in Arsenic concentration.

*PART 3: PROJECT DESCRIPTION**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

A new R3 turnout will be constructed in the area of Amethyst Road and Mesa Road in the City of Victorville. A turnout at this location was originally proposed in the early stages of the R3 Project planning and it is believed that a 'tee' with a blind flange is already in place on the R3 west conveyance line at the site of the proposed TO #5. A Turnout facility will be constructed that is basically identical to the other existing R3 Turnouts. From the TO, approximately one mile of raw water pipe will be installed directly north and connect to VWD's facility #129 at the corner of Amethyst Road and Sycamore Road in the City of Victorville. Once at Site #129, R3 water will be disinfected with Sodium Hypochlorite before entering into VWD's distribution system. R3 water utilized for blending will not be disinfected at Site #129 since all of the blended water is chlorinated at the point of compliance.

Once constructed, the R3 TO #5 will function as a supplemental water supply, when available, to serve VWD customers and will assist the VWD with meeting water quality regulations as a less expensive alternative to costly Ion Exchange and Coagulation/Filtration water treatment, currently utilized by the VWD.

If applicable, list surface water bodies and groundwater basins associated with the proposed project:

- Alto subarea groundwater basin
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Please identify up to three available documents which contain information specific to the proposed project and associated benefits (this information helps determine the technical justification and feasibility):

- Preliminary Design Report, MW METERING STATION TURNOUT #5 – Jan 2018
- 2018 Water Master Plan, Section 2.3.2. PURCHASED WATER
- 2009 20-YEAR COMPREHENSIVE WATER MASTER PLAN, Section 5 Water Supplies

How do you rate the technical feasibility of the proposed project?

X High	The technical feasibility is well-documented and is based on similar successful projects and/or the project uses common and widely accepted technology/practices and/or the project includes or is based on pilot studies or similar results.
☐ Medium	The project does not use common or widely accepted technology/practices, but substantial documentation is available on proposed benefits and project success.
☐ Low	The project has not been done before and technical feasibility is not adequately documented.

PART 4: IRWM PLAN OBJECTIVES ADDRESSED BY PROJECT *

Describe how the project meets any of the following Mojave IRWM Plan Objectives:

Mojave IRWM Plan Objective	Contribution			Description
1. Balance average annual future water demands with available future supplies to ensure sustainability throughout the Region between now and the 2035 planning horizon and beyond.	X Primary	☐ Secondary	☐ NA	R3 water at TO #5 will be utilized whenever available to offset Arsenic removal costs and potential future Chromium 6 treatment costs while meeting customer demands long into the future.
3. Maintain stability in previously overdrafted groundwater basins and reduce overdraft in groundwater basins experiencing ongoing water table declines.	X Primary	☐ Secondary	☐ NA	Utilizes imported SWP water via MWA percolation facilities to offset pumping groundwater from local aquifer.
7. Provide support and assistance to Disadvantaged Communities and help facilitate projects and programs that benefit those communities.	☐ Primary	☐ Secondary	X NA	
8. Protect and restore sensitive environmental areas in coordination with land use and conservation plans to support stewardship and awareness of environmental resources.	☐ Primary	☐ Secondary	X NA	
9. Improve stormwater management throughout the Plan area.	☐ Primary	☐ Secondary	X NA	
2. Continue improving regional water use efficiency by implementing a portfolio of conservation actions that are regionally cost-effective.	☐ Primary	☐ Secondary	X NA	
10. Preserve local beneficial uses as it relates to water quality of water supplied by each source, including groundwater, stormwater, surface water, imported water, and recycled water.	☐ Primary	X Secondary	☐ NA	Using R3 water to offset groundwater pumping in the local area assists in preserving beneficial uses as it relates to the local groundwater basin.
11. Obtain financial assistance from outside sources to help implement this Plan across a range of project sizes during the planning horizon.	☐ Primary	☐ Secondary	X NA	

Mojave IRWM Plan Objective	Contribution			Description
13. Identify and establish reliable funding sources to maintain, modernize and improve water infrastructure to ensure a high quality, resilient and reliable water supply.	☐ Primary	☐ Secondary	X NA	
14. Increase the use of recycled water in the Region while maintaining compliance with the Mojave Basin Area Judgment.	☐ Primary	☐ Secondary	X NA	
4. Address the State policy goal of reducing reliance on the Delta by meeting water demands with alternative sources of supply during times when State Water Project (SWP) supplies are reduced or unavailable due to droughts, outages, environmental and regulatory restrictions, or other reasons.	☐ Primary	X Secondary	☐ NA	Stored R3 groundwater can still be utilized during times when SWP supplies are reduced or unavailable provided there is ample R3 water stored in the regional aquifer.
5. Optimize the use of the Region's water related assets to maximize available supplies to meet projected demands while mitigating against risks. Water related assets to be optimized include financial resources, groundwater storage programs, available imported water supplies, transfer and exchange opportunities, available physical infrastructure, and management policies.	X Primary	☐ Secondary	☐ NA	The R3 project is a major water related asset to the region. In constructing an additional turnout, the VWD will be able to continue using R3 to its fullest potential even after the City of Adelanto connects to R3 and utilizes R3 water to meet their system demands.
12. Improve public awareness of water supply, conservation, water quality, and environmental stewardship challenges and opportunities throughout the planning horizon.	☐ Primary	☐ Secondary	X NA	
6. Prevent land subsidence throughout the Region.	☐ Primary	☐ Secondary	X NA	

*PART 5: RESOURCE MANAGEMENT STRATEGIES**

Please indicate California Water Plan strategies addressed by the proposed project. (Check all that apply)

Reduce Water Demands			
☐ Primary	☐ Secondary	X NA	Agricultural Water Use Efficiency
☐ Primary	☐ Secondary	X NA	Urban Water Use Efficiency
Improve Operational Efficiency and Transfers			
☐ Primary	X Secondary	☐ NA	Conveyance – Delta, Regional/Local
☐ Primary	X Secondary	☐ NA	System Reoperation
☐ Primary	☐ Secondary	X NA	Water Transfers
☐ Primary	☐ Secondary	X NA	Other (Please State):_____
Increase Water Supply			
X Primary	☐ Secondary	☐ NA	Conjunctive Management and Groundwater Storage
☐ Primary	☐ Secondary	X NA	Desalination – Brackish/Seawater
☐ Primary	☐ Secondary	X NA	Precipitation Enhancement
☐ Primary	☐ Secondary	X NA	Recycled Municipal Water
☐ Primary	☐ Secondary	X NA	Surface Storage – CALFED or Regional/Local
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Water Quality			
X Primary	☐Secondary	☐ NA	Drinking Water Treatment and Distribution
☐ Primary	X Secondary	☐ NA	Groundwater/Aquifer Remediation
☐ Primary	X Secondary	☐ NA	Matching Quality to Use
☐ Primary	☐ Secondary	X NA	Pollution Prevention
☐ Primary	☐ Secondary	X NA	Salt and Salinity Management
☐ Primary	☐ Secondary	X NA	Urban Runoff Management
☐ Primary	☐ Secondary	X NA	Other (Please State) _____

Practice Resource Stewardship			
☐ Primary	☐ Secondary	X NA	Agricultural Lands Stewardship
X Primary	☐ Secondary	☐ NA	Economic Incentives (loans, grants, water pricing)
☐ Primary	☐ Secondary	X NA	Ecosystem Restoration
☐ Primary	☐ Secondary	X NA	Forest Management
☐ Primary	X Secondary	☐ NA	Land Use Planning and Management
☐ Primary	☐ Secondary	X NA	Recharge Areas Protection
☐ Primary	☐ Secondary	X NA	Water-Dependent Recreation
☐ Primary	X Secondary	☐ NA	Watershed Management
☐ Primary	☐ Secondary	☐ NA	Other (Please State): _____
Improve Flood Risk Management			
☐ Primary	☐ Secondary	X NA	Flood Risk Management
Other Strategies			
☐ Primary	☐ Secondary	X NA	Please State: _____

Is the proposed project an element or phase of a regional or larger program?	X Yes ☐ No
If yes, please identify the program	R3 Project

*PART 6: PROJECT READINESS**

Item	Status (e.g., not initiated, in process, complete, N/A)	Expected Completion Date
Conceptual Plans	N/A	N/A **(mm/dd/yyyy)**
Feasibility Study	N/A	N/A **(mm/dd/yyyy)**
Preliminary Design and Cost Estimates	90%	12/20/2018 **(mm/dd/yyyy)**
CEQA/NEPA	50%	04/26/2019 **(mm/dd/yyyy)**
Permits	10%	04/26/2019 **(mm/dd/yyyy)**
Construction Drawings	30%	04/26/2019 **(mm/dd/yyyy)**
Funding	100%	N/A **(mm/dd/yyyy)**

For projects that do not include construction, please briefly describe the project's readiness-to proceed.

N/A

Have funding sources been identified for implementation of the project? Please provide a brief explanation.

The project is identified in the VWD's Capital Improvement Plan and will be funded by customer rates.

*PART 7: PROJECT BENEFITS**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits. Quantify benefits to the extent possible (e.g., project will result in x acre-feet of water savings, project will benefit x acres of habitat)

1. **The project will enable the VWD to continue utilizing the full benefits of the R3 project after the City of Adelanto connects and utilizes R3 TO #7.**
2. **The project will provide more flexibility to the VWD by constructing the new TO at a location where R3 water can supplement all of VWD's pressure zones through booster pumps and pressure reducing valves.**
3. **The project will assist the VWD with regulatory compliance by adding low Arsenic and Chromium R3 water to VWD's blending system for water quality compliance.**
4. **The project will aid in keeping treatment costs low by enabling VWD to utilize R3 water to meet regulatory compliance rather than very costly Ion Exchange and Coagulation/Filtration treatment.**
5. **The project will utilize imported water to offset pumping of the local groundwater aquifer.**

Does the project address environmental justice issues (including helping reduce inequitable distribution of environmental burdens and access to environmental goods)?

☐ **Yes** ☐ **No** **X Not Sure**

Does the project address critical water issues (including water supply or water quality) of a disadvantaged community?

X Yes ☐ **No** ☐ **Not Sure**

Does the project provide specific benefits to critical water issues for Native American tribal communities?

☐ **Yes** **X No** ☐ **Not Sure**

If yes, please identify the tribal community: _____

Please indicate to what extent your project contributes to Climate Change Response Actions.

Adaptation to Climate Change		
X	Increases Water Supply Reliability	
X	Advances/ Expands Conjunctive Management of Multiple Water Supply Sources	
☐	Increases Water Use and/or Reuse Efficiency	
X	Provides Additional Water Supply	
X	Promotes Water Quality Protection	
☐	Reduces Water Demand	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse	
☐	Addresses Sea Level Rise	
☐	Addresses other Anticipated Climate Change Impact (e.g. through water management system modifications) Please State:	
☐	Improves Flood Control (e.g. through wetlands restoration, management, protection)	
☐	Promotes Habitat Protection	
	☐	Establishes Migration Corridors
	☐	Re-establishes River-Floodplain Hydrologic Continuity
	☐	Re-introduces Anadromous Fish Populations to Upper Watersheds
	☐	Enhances and Protects Upper Watershed Forests and Meadow Systems
	☐	Other (Please State):
☐	Other (Please State):_____	
Reduces Greenhouse Gas Emissions and/or Energy Consumption		
☐	Promotes Energy-Efficient Water Demand Reduction or Increases Water Use Efficiency	
X	Improves Water System Energy Efficiency	
☐	Advances/Expands Water Recycling	
☐	Promotes Urban Runoff Reuse that Leads to Reduced Energy Demand	
☐	Promotes Use of Renewable Energy Sources	
☐	Contributes to Carbon Sequestration (e.g. through vegetation growth)	
☐	Other (Please State):	

PART 8: PROJECT COST ESTIMATE

Project cost information is needed to assist in comparing benefits and costs. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated total capital cost for project implementation. These costs include land purchase/easement, planning/design/engineering, construction/ implementation, environmental compliance, administration, and contingency.

Lower estimated total capital cost ($):860.000

Upper estimated total capital cost ($): 1,200,000

Of the total capital cost, please indicate the estimated cost for land purchase / easement ($): $50,000

Annual Operation and Maintenance Cost ($): Unknown

Design Life of Project (years): 40 years

Economic Feasibility

Is the project cost-effective?		
X Yes	☐ No	☐ Not Sure
Does the project have a positive benefit-cost ratio?		
X Yes	☐ No	☐ Not Sure