

Project Consistency with an Adopted IRWM Plan

The following projects are included in this Proposal:

1. Mojave Region Commercial, Industrial and Institutional (CII) Turf Phase II Removal Program
2. Hi-Desert Sewer Collection System Phase 1A
3. Mojave Region DAC Small Water Systems Leak Detection Phase 1 Program

Each project being proposed in this grant application is consistent with the Mojave IRWM Plan and contributes to meeting multiple objectives identified in the adopted Plan as shown in Table 1 below. All three projects underwent the project review and selection process documented in the IRWM Plan and are included in the IRWM Plan project list, which is shown on the following pages.

**Table 1
Consistency with the Adopted Mojave IRWM Plan Objectives**

Mojave IRWM Plan Objective	PROPOSAL PROJECTS		
	Mojave Region CII Turf Phase II Removal Program	Hi-Desert Sewer Collection System Phase 1A	Mojave Region DAC Small Water Systems Leak Detection Phase 1 Program
Balance future water demands	💧	💧	💧
Maintain Stable GW Basins	💧	💧	💧
Support & Assist DAC's	💧	💧	💧
Improve Water Use Efficiency	💧	💧	
Reduce Reliance on Delta	💧	💧	
Optimize Use of Assets		💧	
Improve Environmental Stewardship			
Improve Floodplain Mgmt.			
Preserve Water Quality		💧	💧
Obtain Financial Assistance	💧		💧
Improve Public Awareness	💧	💧	
Establish Reliable Maintenance Funding			💧
Increase Use of Recycled Water			
Prevent Land Subsidence			

Appendix D.2

Project Lists

Appendix D.2c

Ranked List of Projects

Mojave Region IRWM Plan Potential Projects (Sorted by Rank)

Project No.	Project Category	Project Title	Lead Agency/ Organization	Project Description	Comments/ Review Questions	Project Type	Prioritized Objectives														Primary Objectives	Importance	Urgency	Tier for Ranking	Get Real Rank							
							1	3	7	2	4	5	8	9	10	11	12	13	14	6												
18R	Conservation & Education	Commercial/Industrial/ Multi-Family Cash for Grass Program	Alliance for Water Awareness and Conservation	This project would expand the scope of turf removal projects in the Mojave region. Currently, there is a \$10,000 rebate cap for commercial, industrial, and multi-family units. This has discouraged larger scale landscape conservation projects. The savings this project can expect is approximately 55 gallons of water saved per year per square foot of grass removed, this would increase our water savings throughout the region based on how much participation we receive in the process.		Implementable Program		2		2			1		1					2		1		2,12	H	H	1	1				
60R	Other	Reorganization between two adjacent small water agencies (BDVWA and CSA 70 Zone W-1 [Landers])	Bighorn-Desert View Water Agency	Initiate reorganization through LAFCO. Provide for LAFCO processing fees, boundary map, preparation of TFM Report (Technical, Financial and Managerial) plan for operation of consolidated entities and evaluate physical infrastructure tie-in. Possible need for Master Plan identifying infrastructure improvements and build-out requirements.		Implementable Project		1			1		2			1				2		1				1	2	7,5	H	H	1	1
92R	Wastewater / Recycled Water	Wastewater Reclamation Project	Hi-Desert Water District	The District's Wastewater Reclamation Project has been determined to be the most viable method of ensuring the Town's compliance with the Regional Board's adoption of the septic tank discharge Prohibition. The project will provide centralized treatment of wastewater generated within the Town at a level consistent with that of the local discharge requirements of both the Regional Board and the CDPH. Wastewater will be collected and conveyed through a series of pipelines that make up the WRP's collection system. Once delivered to the treatment facility, the treated wastewater will be discharged into the East Hydrogeologic Subunit of the Warren Subbasin providing a future source of extractable groundwater.		Implementable Project		2		2		1		2		2				1		2					7,10	H	H	1	1	
93	Wastewater / Recycled Water	Apple Valley & Hesperia Subregional Water Reclamation Facilities	Victor Valley Wastewater Reclamation Authority	Two scalping facilities that will treat liquids from existing collection system and reuse for irrigation purposes. Once complete, each facility will be able to process up to 1 million gallons per day (MGD) with the opportunity to expand each to 4 MGD.	2004 RWMP (VWVRA Subregional Wastewater Treatment Plants).	Implementable Project		2		2		2		2		1				2		2		1	1		4,14	H	H	1	1	
1011	Water Supply / Recharge	Antelope Valley Wash / Rancho Basin Recharge Ponds	City of Hesperia, MWA	The Ponds would provide groundwater recharge upgradient from Hesperia Water District wells. The Hesperia Master Plan of Drainage identifies a 65 acre site for a storm water detention basin in the Antelope Valley Wash south of the newly constructed Rancho Road. In addition to storm water detention, the site would be able to accommodate groundwater recharge. Integrates Projects 4 and 109.	Integrates Projects 4 and 109.	Conceptual Design				1					1							2				3	H	H	1	1		
19	Individual or Small System Improvements	Conceptual Planning for Hinkley's Community Drinking Water System	MWA/Lahontan Regional Water Quality Control Board (RWQCB) /Department of Public Health (DPH) grant	Evaluate the concept of a community water system that draws water from a source of water that is not affected by the chromium plume. The water source must not be affected by plume expansion, remedial byproducts, or groundwater drawdown for the lifetime of the source and must be able to meet the water quality requirements.	Hinkley Water Supply Augmentation - 2004 Regional Water Management Plan - MWA	Conceptual						1				2			2							7	H	H	1	2		
32	Wastewater / Recycled Water	Helendale Community Services District (CSD) Tertiary Treatment Upgrade	Helendale Community Services District	The District has completed a Recycled Water Facilities Plan which has identified a preferred treatment alternative and cost scenario estimated at \$2,670,000 for plant upgrades. The project is designed to produce recycled tertiary water for use within the District service area by improving the WWTP processes to provide unrestricted Title 22 recycled water. The delivery phase is two-stage with minor delivery required to move Title 22 water across the street to Helendale Community Park for landscape irrigation, and the second stage for delivery of Title 22 water to the Silver Lakes Association for golf course irrigation which would require an extensive pump station and force main. The next phase is recycled water storage required to store water during the wet months for use in the dry months and for use by the onsite farming operation. However, this stage of tertiary treatment can be reduced by the implementation of full phase 2 providing recycled water to the SLA golf course.		Implementable Project		1		1			2		1		1			1		2		2		1		10,1,3	H	H	1	2
57	Wastewater / Recycled Water	Recycled Water Distribution System	City of Hesperia	Construct a water distribution system for the conveyance of recycled water from the proposed Subregional Treatment Plant in the City of Hesperia. The system would include a non-potable reservoir near the Subregional site, booster pumps, and approximately seven miles of "purple" pipeline to convey recycled water to the Hesperia Golf Club and several other users throughout the City.		Conceptual Design		1		2		2			1					1							1	1,5,14	H	H	1	2
95	Wastewater / Recycled Water	Adelanto Pearmain Relief Sewer Line	City of Adelanto	The project would consist of the installation of 12 to 18 inch sewer main and manholes from the waste water treatment plant on Auburn to the intersection of Air Expressway and Pearmain. Project would also connect new County HS that is built but not opened due to lack of County funding. However, if/when school does open, the current existing Adelanto sewer does NOT have enough capacity to convey projected school ww flows.		Implementable Project				2		1		2			2			1		1		2			2	7,10	H	H	1	2
106	Water Supply / Recharge	Sheep Creek Recharge Basin and Two Wells	Phelan Piñon Hills Community Services District	Recharge Basin from State Water Project along with 2 pumping wells. The purpose for this project is to purchase water from State Water Project in the future. Currently the District pumps 100% of its water with natural recharge of the basin. With future growth comes future water demand the District is looking at utilizing the Sheep Creek California Aqueduct turn-out to extract state water to recharge the proposed basin utilizing the proposed pipeline. The two proposed wells will be used to pump water into our distribution system. They will also serve to monitor static and pumping levels of the ground water.	Sheep Creek Recharge Ponds 2004 RWMP	Conceptual		1		1		1		1						1		1		2		2	7	H	H	1	2	
116	Water Supply / Recharge	Replacement Water Supply for Perchlorate/Nitrate Affected Groundwater - Barstow Area	MWA/Lahontan RWQCB/DPH grant	Perform a feasibility study to determine the most cost effective and sustainable manner to design, construct and operate an alternative water supply for residents adversely affected by perchlorate and nitrate polluted groundwater in an unincorporated area northeast of Barstow.		Feasibility Study						1				1				1		1		1			7,5	H	H	1	2	
1003	Individual or Small System Improvements	Assistance Program for Small Drinking Water Systems	Mojave Water Agency, San Bernardino County Environmental Health Services	Program would identify water supply, water quality and infrastructure needs of small drinking water systems within the IRWM Region. Small systems needs may include but not limited to: Water quality treatment systems, fireflow protection, replacing aging infrastructure, install new infrastructure, interconnection with other purveyors, well drilling, scada systems, feasibility studies, etc. This program would help connect small systems to available funding by identifying funding sources, assisting with grant applications and paperwork, etc. Sources of funding could include State and Federal funds from a variety of programs designed to help small systems in the identified challenges listed. Integrates Projects 6, 7, 15, 44, 45R, 52, 69, 80, 83, 84, 85, 100, and 120.	Integrates Projects 6, 7, 15, 44, 45R, 52, 69, 80, 83, 84, 85, 100, and 120.	Conceptual		2		2		1								2		1		1			7,11	H	H	1	2	
1004	Baja / Ag Issues	Baja Sustainability Initiative #1 (Agricultural Water Conservation and Base Annual Production Right (BAP) Acquisition Program)	Mojave Water Agency	This Agricultural Water Conservation program will be accomplished through several different means. It includes components of a Voluntary program funded entirely from local, state, federal and/or water fee dollars that purchase base annual production rights (BAP) from stipulated parties under the Mojave Basin Area Judgment. All BAP will be purchased by the Mojave Water Agency and be permanently retired. Each producer's percentage share of BAP will determine the eligible amount of BAP that can be sold to MWA. Also, a Crop Conversion program that would incentivize converting from water intensive crops like Alfalfa to other water efficient crops, with the ultimate goal of reducing costs to the point of making direct delivery of SWP viable and economically feasible. Integrates Projects 1, 10, 25, 55R, and 70R.	Integrates Projects 1, 10, 25, 55R, and 70R.	Implementable Program		1		1		1		1		1				1		1		1			1,3,7	H	H	1	2	

Appendix D.2d

Summary Table of Projects by Priority

Updated Projects Arranged by Proposed Priority*

Tier 2 (L,H)	Tier 1 (M,H)	<p>Tier 1 (H,H)</p> <p style="text-align: center;">GRI = 1</p> <p>18R – Commercial / Industrial / Multi-Family Cash for Grass Program</p> <p>60R – Reorganization between 2 Small Water Agencies (BDVWA and CSA 70 Zone W-1 [Landers])</p> <p>92R – Wastewater Reclamation Project (Hi-Desert WD)</p> <p>93 – Apple Valley & Hesperia Subregional Water Reclamation Facilities - VVWRA</p> <p>1011 – Antelope Valley Wash / Rancho Basin Recharge Ponds</p> <p style="text-align: center;">GRI = 2</p> <p>19 – Conceptual Planning for Hinkley’s Community Drinking Water System</p> <p>32 – Helendale CSD Tertiary Treatment Upgrade</p> <p>57 – Recycled Water Distribution System (City of Hesperia)</p> <p>95 – Adelanto Pearmain Relief Sewer Line</p> <p>106 – Sheep Creek Recharge Basin & Two Wells</p> <p>116 – Replacement Water Supply for Perchlorate / Nitrate Affected GW – Barstow Area</p> <p>1003 – Assistance Program for Small Drinking Water Systems</p> <p>1004 – Baja Sustainability Initiative #1 (Ag Water Conservation & Base Annual Production Right Acquisition Program)</p> <p>1012 – Cedar Street / Bandicoot Detention Basin (City of Hesperia)</p>
Tier 4 (L,M)	Tier 3 (M,M)	<p>Tier 2 (H,M)</p> <p style="text-align: center;">GRI=1</p> <p>13R – Camp Cady: Tamarisk Removal & Riparian Restoration Program</p> <p>118 – Weather Based Irrigation / Completion of Demonstration Garden Project (Barstow CC)</p> <p>1001 – Sewer Lift Station or Reverse Osmosis Treatment Plant (City of Victorville)</p> <p>1006 – Capital Water Main Replacement Program (Hi-Desert WD)</p> <p style="text-align: center;">GRI=2</p> <p>21 – Dairy Nitrate Reduction</p> <p>34 – Hydroelectric Facility at Deep Creek for R3 Wells</p>