

Attachment 10

Program Preferences



San Diego Integrated Regional Water Management Grant Application

PIN 13105

San Diego Region Implementation Grant Proposal

ATTACHMENT 10: Program Preferences

PROGRAM PREFERENCES 1

Program Preference: Support and Improve Local and Regional Water Supply Reliability 4

Program Preference: Contribute to the Long-Term Attainment and Maintenance of Water Quality Standards..... 7

Program Preference: Eliminate or Significantly Reduce Pollution to Impaired Waters and Sensitive Habitats..... 8

Program Preference: Include Safe Drinking Water and Water Quality Projects that Serve Disadvantaged Communities (DACs)..... 10

PROGRAM PREFERENCES

This section discusses the Program Preferences that are met by the San Diego Integrated Regional Water Management Implementation Grant Proposal. The Program Preferences outlined in the Proposition 50 guidelines are:

- ❖ Include integrated projects with multiple benefits
- ❖ Support and improve local and regional water supply reliability
- ❖ Contribute expeditiously and measurably to the long-term attainment and maintenance of water quality standards
- ❖ Eliminate or significantly reduce pollution in impaired waters and sensitive habitat areas, including areas of special biological significance
- ❖ Include safe drinking water and water quality projects that serve disadvantaged communities (DACs).

The suite of projects included in this proposal will address each Program Preferences on a **LOCAL, REGIONAL** or **STATEWIDE** scale. These terms, used to define the breadth and magnitude to which each project addresses Program Preferences, are defined as follows.

- **LOCAL** – Project benefits are focused locally within the project area
- **REGIONAL** – Project benefits extend throughout the San Diego Region (Region)
- **STATEWIDE** – Project benefits are widespread and will benefit not only the Region but other areas throughout California

The following table displays which Program Preferences are addressed by each of the projects included within this proposal, and to what degree.

Proposed Projects	Program Preferences				
	Integrated w/ Multiple Benefits	Improves Water Supply Reliability	Improves Water Quality	Reduces Pollution	Serves DACs
Implementation of Integrated Landscape and Agriculture Efficiency Programs	✓	✓	✓	✓	
Irrigation Hardware Giveaway and Dry Weather Runoff Reduction Demonstration	✓	✓	✓	✓	
Over-Irrigation/Bacteria Reduction	✓	✓	✓	✓	
Santee Water Reclamation Facility Expansion Project	✓	✓	✓	✓	
Recycled Water Retrofit Assistance Program	✓	✓		✓	
City of San Diego Recycled Water Distribution System Expansion, Parklands Retrofit, and Indirect Potable Reuse / Reservoir Augmentation Project	✓	✓	✓	✓	
San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration	✓	✓	✓	✓	✓
El Capitan Reservoir Watershed Acquisition Program	✓	✓	✓	✓	✓
Northern San Diego Invasive Non-Native Species Control Program	✓	✓	✓	✓	
Santa Margarita Conjunctive Use Project	✓	✓	✓		✓
Carlsbad Desalination Project Local Conveyance	✓	✓	✓	✓	✓
San Diego Region Four Reservoir Intertie Project Conceptual Design	✓	✓			
South San Diego County Water Supply Strategy	✓	✓			✓
El Monte Valley Groundwater Recharge and River Restoration Project, Phases 1 and 2	✓	✓	✓	✓	✓
San Diego Regional Pollution Prevention	✓	✓	✓	✓	✓
Biofiltration Wetland Creation and Education Program	✓	✓	✓	✓	✓
San Dieguito Watershed Management Plan Implementation	✓	✓		✓	
San Diego River Watershed Management Plan Implementation	✓				
City of San Diego Green Mall Porous Paving and Infiltration, Phase 1	✓		✓	✓	✓
County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge	✓		✓	✓	
<i>Degree of certainty Preference will be addressed</i>	HIGH	HIGH	HIGH	HIGH	HIGH
<i>Magnitude and extent to which Preference will be addressed</i>	REGION	STATE	REGION	REGION	LOCAL

All of the projects in this proposal are ready to proceed, and were identified in the prioritization process detailed in the 2007 San Diego Integrated Regional Water Management (IRWM) Plan as the Region's highest priority for short-term regional implementation. In addition, the Proposition 50 Program Preferences were used as criteria for determining the highest priority projects for implementation, thereby ensuring that this grant application proposal is consistent with the preferences established for the Proposition 50 IRWM program. Based on the degree of analysis performed on these projects to-date (presented in detail in Attachment 6), it is **FULLY CERTAIN** that the suite of projects included in this proposal will provide the benefits outlined herein.

Program Preference: Integrated Projects with Multiple Benefits

As shown in the table above, all of the projects included within the San Diego Region grant application integrate multiple water management strategies to provide multiple benefits within and beyond the Region. In addition, Table 3 of Appendix 7 of the San Diego IRWM Plan illustrates the integration of water management strategies by projects included in this Proposal.

- ✓ The **Implementation of Integrated Landscape and Agriculture Efficiency Programs, Irrigation Hardware Giveaway and Dry Weather Runoff Reduction Demonstration, and Over-Irrigation/Bacteria Reduction** projects integrate water conservation, water supply reliability, recreation and public access, water quality protection and improvement, and non-point (NPS) source control strategies to provide multiple LOCAL, REGIONAL and STATEWIDE benefits of reduced imported water dependence, improved water supply reliability, improved water quality, enhanced water quality management knowledge, and increased stakeholder involvement and public education. The Over-Irrigation/Bacteria Reduction project will also reduce pollutant loading to San Elijo Lagoon, which is an impaired water body. The certainty of achieving this program preference is high as the link between reducing irrigation runoff through water conservation is well established. Water conservation increases water supply reliability and allows the maintenance of green areas for recreation during drought cycles.
- ✓ **Santee Water Reclamation Facility (WRF) Expansion Project and El Monte Valley Groundwater Recharge and River Restoration Project, Phases 1 and 2.** Together, these projects integrate water supply reliability, ecosystem restoration, environmental and habitat protection and improvement, groundwater management, recreation and public access, and water recycling to provide LOCAL, REGIONAL and STATEWIDE benefits of reduced imported water dependence, improved water reliability through recycled water groundwater recharge, restoration of river habitat, higher groundwater levels for habitat maintenance, improved recreational access through road and trail restoration, prevention and reduction in wastewater discharge to the ocean. The certainty of achieving this program preference is high as additional recycled water made available through the Santee WRF will increase local supply reliability as well as ensure the maintenance of the Santee Lakes Preserve and the El Monte Valley as a recreational resource.
- ✓ **Recycled Water Retrofit Assistance Program and City of San Diego Recycled Water Distribution System Expansion and Parklands Retrofit.** These projects integrate water supply reliability, recreation and public access, and water recycling strategies to provide LOCAL, REGIONAL and STATEWIDE benefits of reduced imported water dependence, improved water supply reliability, reduction in wastewater discharge to the ocean, and maintenance of appearance and function of parks, school fields, athletic fields and golf course during dry years and cutbacks. The certainty of achieving this program preference is high as these projects will allow the beneficial reuse of available recycled water.
- ✓ **San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration and El Capitan Reservoir Watershed Acquisition and Restoration Program.** This project integrates environmental and habitat protection and improvement, recreation and public access, water quality protection and improvement, and watershed planning strategies to provide LOCAL and REGIONAL benefits of source water protection, preservation of sensitive habitat, maintenance of recreational opportunities and open space and avoidance of additional treatment. The certainty of achieving this program preference is high as the targeted properties are near the reservoirs and within sensitive ecological areas.
- ✓ **Northern San Diego Invasive Non-Native Species Control Program.** This project integrates ecosystem restoration, environmental and habitat protection and improvement, water supply reliability, recreation and public access, water quality protection and improvement, and watershed planning strategies to provide LOCAL and REGIONAL benefits of invasive non-native species removal, restoration of native habitat, water quality improvements through restoration of biofiltration, reduction in pollutant loading through removal of illegal encampments, improved recreational access to rivers, and decreased fire risk. The certainty of achieving this program preference is high as the links between invasives removal and the other strategies listed are well documented.
- ✓ **Santa Margarita Conjunctive Use Project (SMCUP).** This project integrates ecosystem restoration, environmental and habitat protection and improvement, water supply reliability, groundwater management, recreation and public access, water quality protection and improvement, desalination, and water treatment strategies to provide LOCAL, REGIONAL and STATEWIDE benefits of reduced imported water dependence, improved water reliability, reduction in conflict through resolution of a long-standing water rights dispute, and preservation of riparian habitat. The certainty of achieving this program preference is high as the project components that represent these strategies are supported through extensive studies, monitoring and modeling, where applicable.
- ✓ **Carlsbad Desalination Project Local Conveyance.** This project integrates ecosystem restoration, environmental and habitat protection and improvement, water supply reliability, recreation and public

access, water quality protection and improvement, desalination, and water treatment strategies to provide **LOCAL, REGIONAL** and **STATEWIDE** benefits of reduced imported water dependence, improved water reliability, maintenance of the inlet to Agua Hedionda Lagoon, wetlands and uplands habitat restoration, maintenance of water contact recreation area, and dedication of ocean front and lagoon front property for public access. The certainty of achieving this program preference is high as these strategies are all elements of the project required for function or mitigation.

- ✓ **San Diego Region Four Reservoir Intertie Project Conceptual Design.** This project integrates water supply reliability and recreation and public access strategies to provide **LOCAL, REGIONAL** and **STATEWIDE** benefits of: improved water supply reliability; additional regional storage for dry year reserves, fire fighting, and operational flexibility with respect to timing of imported water deliveries; and enhanced recreational opportunities through higher and more consistent reservoir levels. The certainty of achieving this program preference is moderate since the project consists of conceptual design.
- ✓ **South San Diego County Water Supply Strategy.** This project integrates water supply reliability, groundwater management, and conjunctive use strategies to provide **LOCAL, REGIONAL** and **STATEWIDE** benefits of reduced imported water dependence, improved water reliability through determination of the yield from the San Diego Formation (SDF) and opportunities for conjunctive use and groundwater banking. The certainty of achieving this program preference is high as the hydrogeologic monitoring and modeling that will be conducted will establish the optimal conjunctive use of the SDF.
- ✓ **San Diego Regional Pollution Prevention.** This project integrates pollution prevention, water quality protection and improvement and watershed planning strategies to provide **LOCAL** and **REGIONAL** benefits of a water quality and trash baseline set of data for the Region, stakeholder involvement and education opportunities, increased awareness of water quality issues, and opportunities to improve recreational access by identification of impairments that affect REC-1 and REC-2 beneficial uses. The certainty of achieving this program preference is high.
- ✓ **Biofiltration Wetland Creation and Education Program.** This project integrates ecosystem restoration, environmental and habitat protection and improvement, water supply reliability, recreation and public access, water quality protection and improvement, water recycling, wetlands enhancement and creation, NPS source pollution control, and water treatment strategies to provide **LOCAL** and **REGIONAL** benefits by demonstrating the value of wetlands for improving water quality and achieving beneficial use of recycled water from the Wild Animal Park's wastewater treatment plant. The certainty of achieving this program preference is high as this project combines these strategies into functional project.
- ✓ **San Dieguito Watershed Management Plan Implementation and San Diego River Watershed Management Plan Implementation.** These projects integrates ecosystem restoration, environmental and habitat protection and improvement, recreation and public access, water quality protection and improvement, wetlands enhancement and creation, NPS source pollution control, and watershed planning strategies to provide **LOCAL** and **REGIONAL** benefits of implementation of the San Dieguito and San Diego Watershed Management Plans (WMPs), support for responsible public access to the San Dieguito River Park, and stakeholder outreach and education to include seven DACs, and opportunities for watershed activities such as trash cleanup and non-native species removal. The certainty of achieving this program preference is high as the projects will implement the San Dieguito WMP and the San Diego River WMPs.
- ✓ **City of San Diego Green Mall Porous Paving and Infiltration, Phase 1 and County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge.** These projects integrate flood management, stormwater capture and management, water quality protection and improvement, and NPS source pollution control strategies to provide **LOCAL** and **REGIONAL** benefits of water quality improvements through stormwater capture and infiltration, reduction of impervious surfaces, demonstration of porous paving and low impact development (LID) practices, and reduction in pollutant loading to an impaired water body within a DAC. The certainty of achieving this program preference is high as the project employs proven stormwater capture methods and has selected strategic sites for implementation.

[Program Preference: Support and Improve Local and Regional Water Supply Reliability](#)

This Proposal will significantly improve local and regional water supply reliability. Many projects will create new sources of local water or will reduce existing demands. Many projects that do not have supply as a primary focus support improved water supply reliability through education and awareness programs. The projects in this Proposal that meet this program preference are discussed below.

- ✓ The **Implementation of Integrated Landscape and Agriculture Efficiency Programs** will significantly improve water use efficiency through implementation of programs to address agricultural and landscape water use efficiency. The project will achieve approximately 500 acre feet per year (AFY) of savings through the use of agricultural audits. An incentive program to encourage irrigation retrofits is projected to produce 541 AFY of water use savings. An innovative web-driven water budget program has the potential to achieve savings of up to 2,741 AFY. Finally, demonstration retrofits associated with the landscape ordinance are projected to generate 6 AFY. This project will improve water supply reliability at a **LOCAL** level to participating customers and member agencies by reducing imported water demand. It will produce **REGIONAL** benefits by contributing to the San Diego County Water Authority's (Water Authority's) regional water conservation goals. The certainty of implementing this program preference through the agricultural audit and irrigation retrofit programs is high, as these are based on proven programs. In addition, customers have indicated their willingness to develop and adhere to water budgets at a recent Water Conservation Summit.
- ✓ The **Irrigation Hardware Giveaway and Dry Weather Runoff Reduction Demonstration** will increase irrigation efficiency leading to enhanced water supply reliability. The project is projected to save 150 AFY of water by providing 700 weather-based irrigation controllers (WBICs) and other types of distribution hardware to residences and businesses, as well as providing California Friendly Plant Palettes. This project will improve water supply reliability at a **LOCAL** level by reducing local dependence on imported water supplies. It will produce **REGIONAL** benefits by contributing to the Water Authority's regional water conservation goals. The certainty of achieving this preference is high as the equipment that will be given away has proven, demonstrated water supply savings.
- ✓ The **Over-Irrigation/Bacteria Reduction** project will improve water supply reliability at a **LOCAL** level by reducing the demand on imported water through water conservation and use of efficient water irrigation devices to prevent over-irrigation. The certainty of obtaining implementing this preference is high as the equipment that will be given away has proven, demonstrated water supply savings.
- ✓ The **Santee WRF Expansion Project** will provide 5,000 AF of local, drought-proof water through the expansion of recycled water production capacity from 2 mgd to 4 mgd. This project will improve water supply reliability at the **LOCAL** level by reducing imported water demand. It will improve water supply reliability at a **REGIONAL** level by implementing one of the Water Authority's planned local resource projects necessary to meet projected regional water demands. The certainty of achieving this program preference is high because a completed feasibility study supports the expected benefits.
- ✓ The **Recycled Water Retrofit Assistance Program** will facilitate the delivery of 2,000 AFY of recycled water through installation of customer retrofits. This will increase water supply reliability at the **LOCAL** level by reducing imported water demand. It will improve water supply reliability at the **REGIONAL** level by helping to meet the Water Authority's regional recycled water expansion goals and by increasing the diversity of the member agencies' water supply portfolio. Every gallon of recycled water used reduces the need to import or develop other water supplies and furthers the Region's supply reliability. The certainty of achieving this program preference is high because studies have shown that providing retrofits helps to overcome the last barrier to delivery of recycled water.
- ✓ The **City of San Diego Recycled Water Distribution System Expansion, Parklands Retrofit, and Indirect Potable Reuse / Reservoir Augmentation Project** will increase recycled water supply deliveries from the North City Water Reclamation Plant (NCWRP) by 1,709 AFY through expansion of a distribution system and park retrofits. This will increase water supply reliability at the **LOCAL** level by reducing imported water demands. It will improve water supply reliability at the **REGIONAL** level by helping to meet the Water Authority's regional recycled water expansion goals and by diversifying the member agencies' water supply portfolio. The certainty of achieving this program preference is high because the project will serve recycled water demands that have already been identified.
- ✓ **San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration** will improve the quality of runoff reaching the reservoir by helping to establish a 1000' buffer zone surrounding the reservoir, thereby increasing the safety, reliability and affordability of drinking water. The project will improve water supply reliability at the **LOCAL** level by ensuring that the supplies that are available will not be lost due to poor water quality, which would necessitate greater reliance on additional imported supplies. It will improve water supply reliability at the **REGIONAL** level as San Vicente Reservoir

will eventually become part of a larger regional system. The certainty of achieving this program preference is high.

✓ The **EI Capitan Reservoir Watershed Acquisition and Restoration Program** would protect the water quality of the EI Capitan Reservoir, which is the Region's largest surface water storage facility, by acquiring approximately 120 acres of vacant land that is upstream of the reservoir and maintaining it in undeveloped condition. This will reduce the potential for NPS sources of contaminants from development and ensure the water supply reliability at the **LOCAL** level. The certainty of implementing this preference is high.

✓ The **Northern San Diego Invasive Non-Native Species Control Program** will increase local water supply reliability at the **LOCAL** level by removing high water-consuming invasive plant species. The project will also increase reliability by removing a potential threat to water storage delivery systems, structures and maintenance roads. The certainty of achieving this program preference is moderate as the actual impact of the invasive plant species on water supplies in the targeted HUs has not been established.

✓ The **SMCUP** will create 6,500 AF of new supply through increased diversions from the Santa Margarita River and through optimal conjunctive use of the Santa Margarita River groundwater basin. This will increase water supply reliability at the **LOCAL** level by resolving a long standing water rights dispute between Camp Pendleton and Fallbrook. It will also improve water supply reliability at the **REGIONAL** level by providing a connection to the regional system, diversifying the Region's supply. The certainty of achieving this program preference is high, as the project is well-supported by groundwater modeling studies and technical reports that establish the basis for the benefits.

✓ The **Carlsbad Desalination Project Local Conveyance** project will provide 56,000 AFY of new local water supply which will replace an equivalent amount of imported water. This will improve water supply reliability at the **LOCAL** level for the contracting member agencies by reducing dependence on imported water with a new, locally controlled drought-proof supply of potable water. This project increases water supply reliability at the **REGIONAL** level as this project will reduce imported water demands for the Region. The certainty of achieving this program preference is high, as the project is supported by a feasibility study and has recently received approval from the California Coastal Commission.

✓ The **San Diego Region Four Reservoir Intertie Project Conceptual Design** will provide up to an additional 100,000 AF of storage for the Region by maximizing the use of four reservoirs. This will improve **LOCAL** and **REGIONAL** water supply reliability by optimizing capacity for imported water storage and/or improved management of local water resources. The certainty of achieving the program preference is low to moderate as this project represents an intermediate step toward final implementation.

✓ The **South San Diego County Water Supply Strategy** will greatly improve **LOCAL** water supply reliability by allowing a significant groundwater resource to be managed for water supply. It will also improve **REGIONAL** water supply reliability by reducing overall imported water demand and creating opportunities for groundwater banking and conjunctive use. The certainty of achieving this program preference is moderate. The completion of the Implementation Study will enable the next phase of implementation of the **South San Diego County Water Supply Strategy** to begin.

✓ **EI Monte Valley Groundwater Recharge and River Restoration Project, Phases 1 and 2** supports and improves both **LOCAL** and **REGIONAL** water supply reliability through up to 5,000 AFY of new drought-proof water supply by recharge of the EI Monte Valley Groundwater basin with recycled water. The certainty of achieving this program preference is high as a feasibility study has been completed, supporting the expected benefits.

✓ The **San Diego Regional Pollution Prevention** project will contribute to **LOCAL** water supply reliability by encouraging actions such as water conservation that will reduce demand on imported water. The certainty of this program preference being achieving is low, as the primary focus of this project is water quality.

✓ The **Biofiltration Wetland Creation and Education Program** will improve both **LOCAL** and **REGIONAL** water supply reliability by reducing the dependence on imported water. The certainty of this program preference being achieved is moderate, as the actual impact on changing behavior is unknown.

✓ The **San Dieguito Watershed Management Plan Implementation** project will assist in finding innovative ways improve both **LOCAL** and **REGIONAL** water supply reliability. The certainty of this program preference being achieved by this project is low to moderate, as the steps described above, although important, are only the initial ones towards improving water supply reliability

Program Preference: Contribute to the Long-Term Attainment and Maintenance of Water Quality Standards

✓ The **Implementation of Integrated Landscape and Agriculture Efficiency Programs** will contribute to long-term attainment and maintenance of water quality standards at a **LOCAL** level by reducing impacts of over-irrigation to local water bodies. Since the project is being implemented throughout the Water Authority service area and in local watersheds that ultimately drain into San Diego Harbor, San Diego Bay and the Ocean, it also provides improved water quality at a **REGIONAL** level. The certainty of achieving this program preference is high, as studies have linked over-irrigation to downstream water quality impacts.

✓ The reduction in irrigation runoff created by the **Irrigation Hardware Giveaway and Dry Weather Runoff Reduction Demonstration** project will contribute to the long-term attainment and maintenance of water quality at the **LOCAL** level by decreasing pollution present in runoff from landscapes (chemicals, pesticides, fertilizer, other contaminants) that flow out to waterways. Since the local watersheds ultimately drain into San Diego Harbor, San Diego Bay and the Ocean, the project also provides improved water quality at the **REGIONAL** level. The certainty of achieving this program preference is high, as studies have linked over-irrigation to downstream water quality impacts.

✓ The **Over-Irrigation/Bacteria Reduction** project will improve water quality at the **LOCAL** level by improving water quality at San Elijo Lagoon, an impaired water body listed for bacteria, nutrients, and sediment. As the project is designed to demonstrably illustrate the link between irrigation over-watering and water quality degradation, it will serve as a model to enhance the beneficial uses of the Region's water bodies. This will contribute to long-term attainment and maintenance of water quality standards at the **REGIONAL** level. The certainty of achieving this program preference is high, as studies have linked over-irrigation to downstream water quality impacts.

✓ The **Santee WRF Expansion Project** will contribute measurably to the long-term maintenance of water quality standards at the **LOCAL** level through groundwater quality improvements generated by percolating highly treated recycled water.

✓ **San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration** will protect the quality of water stored in the San Vicente Reservoir by improving the quality of runoff reaching the reservoir. Since the San Vicente Reservoir will be connected to a regional system of reservoirs, this project will contribute to the long-term attainment and maintenance of water quality standards at both the **LOCAL** and **REGIONAL** levels. The certainty of achieving this program preference is high.

✓ The **El Capitan Reservoir Watershed Acquisition and Restoration Program** will protect the quality of water stored at El Capitan Reservoir by improving the quality of runoff that reaches the reservoir. This will benefit the lower San Diego River, which is impaired for TDS, fecal coliform, low dissolved oxygen and phosphorus. Thus, this project will contribute to the long-term attainment and maintenance of water quality standards at both the **LOCAL** and **REGIONAL** level. The certainty of achieving this program preference is high.

✓ The **Northern San Diego County Invasive Non-Native Species Control Program** will provide water quality benefits through the removal of invasive species, including the restoration of more natural sediment flood processes, flood regimes, river shading and reduction of debris and organic inputs. Since the project will be implemented across four HUs, which all drain to the ocean, this project will contribute to the long-term attainment and maintenance of water quality standards at both a **LOCAL** and **REGIONAL** level. The certainty of achieving this program preference is high because the linkage between removal of invasives and water quality along the riparian areas in this project is proven.

✓ The **SMCUP** will reduce long-term TDS levels in the lower Santa Margarita River basin by providing a high level of brine removal from extracted groundwater. This will contribute to the long-term attainment and maintenance of water quality standards at the **LOCAL** level. The certainty of achieving this program preference is high as TDS will be removed by a proven reverse osmosis (RO) treatment process.

✓ The desalinated water from the **Carlsbad Desalination Project Local Conveyance** project will deliver water with lower TDS and hardness than existing supplies, facilitating long-term maintenance of drinking water standards. Because the supply from this project will be delivered to a number of member agencies, the project will contribute to the long-term attainment and maintenance of water quality standards at the **LOCAL and REGIONAL** level. The certainty of achieving this program preference is high because TDS will be removed through proven RO process.

- ✓ The **El Monte Valley Groundwater Recharge and River Restoration Project, Phases 1 and 2** will contribute measurably to the long-term maintenance of water quality standards through groundwater quality improvement created by percolation of highly treated recycled water and wetland pollution elimination. This will have effects downstream in the watershed, where the San Diego River is impaired, and thus will contribute to the long-term attainment and maintenance of water quality standards at the **REGIONAL** level. The certainty of achieving this program preference is moderate as the link between water quality in the San Diego River and groundwater quality in the El Monte Valley Groundwater basin is not well established.
- ✓ The **San Diego Regional Pollution Prevention** project will establish an important baseline trash and water quality dataset for the Region, transferable to local communities. This will allow stakeholders to gain a greater understanding of regional and local water quality objectives leading to improved stewardship of water resources, including a reduction in non-point source (NPS) pollution. This project will provide the tools that decision makers and local citizens need to effect water quality improvements, contributing to the long-term attainment and maintenance of water quality standards at both the **LOCAL** and **REGIONAL** level. The certainty of achieving this program preference is high as there will be measurable reductions in debris contributing to water quality degradation.
- ✓ The **Biofiltration Wetland Creation and Education Program** will remove Biological Oxygen Demand, total suspended solids, organic nitrogen, and nitrates from its pond water, which overflows into the Santa Ysabel Creek and San Pasqual Valley drainage into Lake Hodges, an impaired waterbody. As a result, the project will directly contribute to the long-term attainment and maintenance of water quality standards at both the **LOCAL** and **REGIONAL** level. The certainty of achieving this preference is high as the project drains into an impaired water body.
- ✓ The implementation of the **City of San Diego Green Mall Porous Paving and Infiltration, Phase 1** project will help the City comply with the Chollas Creek Total Maximum Daily Load (TMDL) for copper, lead, and zinc and the Municipal Storm Water Permit, which are long-term programs to improve and protect surface water quality in the Region. The project will thus contribute to the long-term attainment and maintenance of water quality standards at both the **LOCAL** and **REGIONAL** level. The certainty of achieving this program preference is high as the projects are using proven Best Management Practices (BMPs) for capturing stormwater and are targeting the Chollas Creek, which is an impaired water body.
- ✓ The **County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge** project will contribute expeditiously and measurably to long-term attainment and maintenance of water quality standards at both the **LOCAL** and **REGIONAL** level by contributing towards implementation of the Chollas Creek TMDL for copper, lead, and zinc by reducing runoff from County facilities in the Chollas Creek Watershed and demonstrating LID methods that could be used by others to further reduce urban runoff within the watershed. The certainty of achieving this program preference is high as the project will use proven BMPs to improve water quality at an impaired water body.

Program Preference: Eliminate or Significantly Reduce Pollution to Impaired Waters and Sensitive Habitats

- ✓ The **Implementation of Integrated Landscape and Agriculture Efficiency Programs** would reduce pollutant loading at the **REGIONAL** level by reducing runoff from over-irrigation throughout the entire Water Authority service area, which includes a number of impaired water bodies. The certainty of achieving this program preference is high, as dry weather urban runoff is a major contributor to pollutant loading for a number of constituents in the Region and this project will remove a source of that runoff.
- ✓ The **Irrigation Hardware Giveaway and Dry Weather Runoff Reduction Demonstration** would reduce pollution loading at the **REGIONAL** level by minimizing pollutant loading from landscape runoff (chemicals, pesticides, fertilizer, other contaminants) that flow to waterways. This project would be implemented within the City of San Diego, which includes the impaired water bodies of Los Penasquitos Creek, Los Penasquitos Lagoon, San Diego River, Chollas Creek and San Diego Bay. The certainty of achieving this program preference is high, as dry weather runoff due to over-irrigation is major contributor to pollutant loading in these water bodies.
- ✓ The **Over-Irrigation/Bacteria Reduction** project will reduce or eliminate runoff and associated bacteria and nutrient loading to receiving waters caused by over-irrigation, with a specific focus on San Elijo Lagoon, which is impaired for bacteria, nutrients, and sediment. This project will reduce pollutant loading at

the **LOCAL** level, improving impaired waters and sensitive habitat areas. The certainty of achieving this program preference is moderate as the project is a smaller scale project.

✓ The **Santee WRF Expansion Project**, along with the **El Monte Valley Groundwater Recharge and River Restoration Project** together will reduce pollutant loading to impaired waters and sensitive habitat at the **LOCAL** level through the use of habitat and wetland management in the El Monte Valley as well as control of pollutant loads from non-point sources. Because the El Monte Valley Basin is upstream of the Lower San Diego River, which is impaired for TDS, fecal coliforms, low dissolved oxygen and phosphorus, this project has the potential to reduce pollutant loading at a **REGIONAL** level by reducing loads to this river. The certainty of achieving this program preference is moderate.

✓ The **Recycled Water Retrofit Assistance Program** will minimize pollution loading to sensitive ocean habitat at the **REGIONAL** level due to reduced discharge releases. The certainty of achieving this program preference is high as the water beneficially reused will not be discharged to the ocean.

✓ The **San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration** and **El Capitan Reservoir Watershed Acquisition and Restoration Program** projects would eliminate the potential for development of the acquired properties, improving runoff quality by limiting the potential increase in pollutant loading at the **LOCAL** level and precluding an increase in impermeable surfaces. Because both reservoirs are upstream of the Lower San Diego River, which is impaired for TDS, fecal coliform, low dissolved oxygen and phosphorus, this project will reduce pollutant loading at the **REGIONAL** level by reducing loads to the impaired San Diego River. The certainty of achieving this program preference is high as the properties for acquisition are in close proximity to the reservoirs.

✓ The **Northern San Diego County Invasive Non-Native Species Control Program** will restore habitat function and improve water quality, reducing pollutant loading at the **REGIONAL** level through biofiltration and reduced NPS fecal contamination by reducing use of riparian areas by the homeless. The Santa Margarita and San Luis Rey Rivers are impaired as well as Buena Vista, San Marcos, Encinitas and Escondido Creeks, which are all within the targeted HUs and would benefit from invasives removal. The certainty of achieving this program preference is high as the pollution reduction benefits associated with removal of invasives will be assured by replacement of habitat with native vegetation.

✓ The **Carlsbad Desalination Project Local Conveyance** will have a beneficial impact on the sedimentation problem in Agua Hedionda Lagoon by ensuring the lagoon inlet remains open and tidal exchange is unobstructed. The Agua Hedionda Lagoon is impaired for bacteria and sedimentation. As a result, this project will reduce pollutant loading to sensitive habitat and and impaired waterbody at the **LOCAL** and **REGIONAL** levels. The certainty of achieving this program preference is high as the inlet must remain open to allow the project to function.

✓ The **San Diego Regional Pollution Prevention** project will remove debris from waterways and coastal areas, allow stakeholders to gain a greater understanding of regional and local water quality objectives, leading to improved stewardship of water resources to reduce NPS pollution for impaired waters and areas of special biological significance at the **REGIONAL** level. Many of the rivers that will be sampled and where cleanups will be conducted in this project are impaired. The certainty of achieving this program preference is high.

✓ The **Biofiltration Wetland Creation and Education Program** will reduce BOD, total suspended solids, organic nitrogen, and nitrates from its pond water, which sometimes overflows into Santa Ysabel Creek and the San Pasqual Valley drainage which flow into Lake Hodges. These areas are home to significant wetland and riparian habitats supporting Bell's vireo, arroyo toad, and other wetland/riparian-dependent species of concern. This will reduce pollutant loading to sensitive habitat at the **LOCAL** and **REGIONAL** level. The certainty of achieving this program preference is high as the presence of the sensitive habitats and the impacts from upstream non-point sources to Lake Hodges are acknowledged.

✓ The **San Dieguito and San Diego River Watershed Management Plan Implementation** projects will support and seek funding for projects that will enhance native habitats and conduct public education and outreach about pollution prevention at the **REGIONAL** level throughout the San Dieguito and San Diego watersheds, areas of which are included in the Multi Species Conservation Plan (MSCP). The certainty of achieving this program preference is moderate.

✓ The **City of San Diego Green Mall Porous Paving and Infiltration, Phase 1** will help reduce runoff pollution through pollutant source control, volume reduction and treatment. This will provide benefits to local impaired waters at the **LOCAL** level, including, but not limited to: Chollas Creek, Tecolote Creek,

Peñasquitos Creek, Mission Bay, San Diego Bay, Tijuana River, and San Diego River. The certainty of achieving this program preference is moderate.

✓ The **County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge** project will significantly reduce pollution in impaired waters and sensitive habitat by reducing runoff from approximately 5.2 acres of County facilities in the Chollas Creek Watershed and by demonstrating LID methods that could be used by others to further reduce urban runoff within the watershed. This will provide pollutant reductions at both the **LOCAL** and **REGIONAL** level. The certainty of achieving this program preference is moderate.

Program Preference: Include Safe Drinking Water and Water Quality Projects that Serve Disadvantaged Communities (DACs)

The nature of projects serving DACs is to provide benefits at a **LOCAL** level.

✓ The San Vicente and El Capitan Reservoirs, which are the reservoirs affected by the **San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration** and **El Capitan Reservoir Watershed Acquisition and Restoration Program** projects, are part of the system that provides drinking water to a myriad of diverse communities (including DACs). The certainty of achieving this program preference is high as the lands acquired will be adjacent to the reservoirs.

✓ Development of additional local supply, treatment and conveyance through the **SMCUP** will provide a source of safe drinking water to the DACs within the FPUD service area and Camp Pendleton. The certainty of achieving this program preference is high as water supply benefits are well established.

✓ The **Carlsbad Desalination Local Conveyance** project will deliver a highly reliable supply of high-quality drinking water supply at a price that is less than or equal to the price of imported water. DACs are disproportionately impacted by water quality considerations. The proposed project will lessen these impacts in the DACs directly served by the project (e.g., the Barrio in Carlsbad). The certainty of achieving this program preference is high as the project will supply a new safe source of drinking water.

✓ The **South San Diego County Water Supply Strategy** will implement Phase III of the USGS Implementation Study to determine the extent to which the San Diego Formation can sustainably be used to maximize local water resources. Depending on the outcome of the study, water service improvement projects would be implemented that would benefit DACs, including portions of National City and western Chula Vista. The certainty of achieving this program preference is moderate.

✓ The **El Monte Valley Groundwater Recharge and River Restoration Project, Phases 1 and 2** includes water quality benefits to DACs within Lakeside by improving the groundwater and shifting groundwater users in the project's sphere of influence to a potable water supply (Lakeside Water District). The certainty of achieving this program preference is high as the recharge capacity of the groundwater basin has been confirmed through studies and modeling.

✓ The **San Diego Regional Pollution Prevention** project will include waterway and coastal area cleanups, water quality monitoring and associated community outreach in DACs through the management, dissemination and communication of trash and water quality data as well as how to mitigate impacts in these areas. The certainty of achieving this program preference is moderate.

✓ The **Biofiltration Wetland Creation and Education Program** will provide water conservation and pollution prevention programs to DACs. The certainty of achieving this program preference is moderate.

✓ The **City of San Diego Green Mall Porous Paving and Infiltration, Phase 1** will lead to projects similar in scope that will be implemented in other areas of the City, including DACs, which will help protect local tributaries and canyons from urban runoff pollution. The certainty of achieving this program preference is high as the project is implemented within a DAC and adjacent to an impaired water body that serves as a resource for the DAC.