Attachment 6

San Diego Integrated Regional Water Management

2015 IRWM Implementation Grant Proposal

Program Preferences

Attachment 6 consists of the following items:

- ✓ **Program Preferences.** This attachment contains information regarding how this *2015 IRWM Implementation Grant Proposal* meets the preferences described in Section II.F of the *2015 Guidelines*. This attachment also describes how the Proposal assists in addressing the Human Right to Water Policy (§CWC 106.3).

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Program Preferences Overview

Table 6-1 shows which Program Preferences are met by each of the thirteen projects included in the *2015 Implementation Grant Proposal*. Taken together, the thirteen projects address all eight Program Preferences and all eight Statewide Priorities.

Table 6-1: How Proposed Projects Meet Program Preferences, Statewide Priorities, and Human Right to Water

	Proposed Projects	Program Preferences								Statewide Priorities								
		1: Regional Projects	2: Integrate Water Mgmt	3: Resolve Conflict	4: Bay-Delta Objectives	5: Benefits DACs	6:Land Use Planning	7. IRWM Plan	8: Statewide Priorities	*Drought Preparedness*	*Reuse Water More Efficiently*	*Climate Change Response*	*Expand Env. Stewardship*	*Int. Flood Management*	*Protect Surface/ Groundwater*	*Improve Tribal Water/Nat. Res.*	*Ensure Equit. Dist. of Benefits*	Human Right to Water
1	Regional Drought Resiliency Program	✓	✓	✓	✓	✓		✓	✓	●	●	●			○		○	✓
2	Conservation Home Makeover in the Chollas Creek Watershed		✓	✓	✓	✓		✓	✓	●	●	●			○		●	✓
3	San Diego Water Conservation Program		✓	✓	✓	✓		✓	✓	●	●	●			○		○	✓
4	Ms. Smarty-Plants Grows Water-Wise Schools		✓	✓	✓	✓		✓	✓	●	●	●			○		●	✓
5	Rural Disadvantaged Community Partnership Project – Phase III		✓	✓	✓	✓		✓	✓	●	●	●	●	●	●	●	●	✓
6	Integrated Water Resource Solutions for the Carlsbad Watershed		✓	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●		○	✓
7	UCSD Water Conservation and Watershed Protection		✓	✓	✓	✓	✓	✓	✓	●	●	●	●		●		●	✓
8	Escondido Advanced Water Treatment for Agriculture		✓	✓	✓	✓	✓	✓	✓	●	●	●			●		○	✓
9	Padre Dam Advanced Water Treatment – Phase I Expansion		✓	✓	✓	✓		✓	✓	●	●	●					●	✓
10	Safari Park Drought Response and Outreach		✓	✓	✓	✓		✓	✓	●	●	●			●		○	✓
11	San Diego River Healthy Headwaters Restoration		✓		✓	✓		✓	✓	●			●	●	●		○	✓
12	Sweetwater Reservoir Wetlands Habitat Recovery		✓	✓		✓		✓	✓	●			●	●	●		●	✓
13	Hodges Reservoir Natural Treatment System	✓	✓	✓	✓	✓		✓	✓	●		●	●		●		○	✓
Degree of Certainty Preferences Will Be Addressed		**H**	**H**	**H**	**M**	**H**	**M**	**H**	**H**	-	-	-	-	-	-	-	-	-
Magnitude and Breadth to Which Preference will be Addressed		**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	-	-	-	-	-	-	-	-	-

M = Medium, H = High, R = Regional; ○ indirectly related; ● directly related

Conservation Program

Project 1: Regional Drought Resiliency Program

The *Regional Drought Resiliency Program* will expand efforts to retrofit correctional facilities with water-saving devices, implement a sustainable landscapes program, and outreach to property owners on reducing water demands. This program addresses seven program preferences and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Regional Project: The project will be implemented across the San Diego County Water Authority (SDCWA) service area, which spans much of the San Diego IRWM Region. Project benefits will be regional both in water savings and in decreased reliance on imported water.

Effectively Integrate Water Management: This project is integrated in three of the six ways defined in the *2013 IRWM Plan*: partnership, resource management, and sustainability integration. Partnership integration has occurred through the SDCWA's partnership with Otay Water District and the California Department of Corrections and Rehabilitation. The project also meets six objectives of the *2013 IRWM Plan*, meeting the Region's definition of resource management integration. It meets the Region's sustainability integration goals by implementing and promoting sustainable water use and conservation measures.

Resolve Water-Related Conflicts: The project will resolve water management conflicts by reducing potable water demands, which allows potable supplies to be used for potable needs, conflict over which increases during times of drought. Reduced potable demands also alleviates demands for imported water in the Region, thereby reducing conflicts related to use of SWP and Colorado River supplies. In addition, conservation achieved through this project will contribute towards the Governor's 25% statewide conservation mandate, which calls for SDCWA's member agencies to reduce water use by 12% to 36%.

Meet Bay-Delta Objectives: The project will meet the Water Supply and Ecosystem Restoration objectives of the CALFED Bay-Delta through reduced demand for imported water. Local imported water demand will be reduced through reduced potable water demands. Approximately one-third of the Region's imported water comes from the SWP. Because this project will offset up to 1,809 AFY imported water, it is anticipated that local demand for SWP will be reduced by approximately 600 AFY as a result of this project. Reduced SWP demands will directly reduce demand from the Bay-Delta.

Address DAC Needs: This project will conserve potable water for potable needs, increasing water supply reliability, including in times of drought. Conserved water could be used during shortages to address critical water supply needs in the Region, including those of DACs.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in Attachment 1. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification (including conservation/efficient use of resources) is a key part of the *2013 IRWM Plan*, and this project helps to increase conservation, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan* (see *Attachment 1*).

Address Statewide Priorities: The project directly meets four statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions, and 4) Ensure Equitable Distribution of Benefits; and indirectly meets one statewide priority: 1) Protect Surface/Groundwater Quality. Drought preparedness and using water more efficiently are addressed by the project's turf replacement, retrofit, landscape makeover and water use efficiency programs, which will reduce potable demands and increase water reuse to meet non-potable demands. Similarly, the project will address potential climate change impacts, which are anticipated to include increased reliability issues with imported water (the Region's largest source of potable supply) and climate change-driven drought by reducing water demands and increasing the public's water-use efficiency through education. As described in Attachment 7, SDCWA's service area is 26% DAC by area, and this project benefits SDCWA's service area equally, thereby ensuring an equitable distribution of benefits. The project indirectly protects surface and groundwater quality by reducing irrigation and associated runoff.

Project 2: Conservation Home Makeover in the Chollas Creek Watershed

The *Conservation Home Makeover in the Chollas Creek Watershed* project will install stormwater capture, greywater, and landscape upgrades in low-income homes in the Encanto neighborhood to reduce potable water demands and allow for sustainable home-food production in DACs. The project will address the Human Right to Water (below), six program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: The project includes three types of integration defined in the *2013 IRWM Plan*: partnership, resource management integration, and sustainability integration. Groundwork San Diego (Groundwork) has partnered with Grid Alternatives and the San Diego Sustainable Living Institute to implement the project, which will address seven *2013 IRWM Plan* objectives (resource management integration). Sustainability integration has been achieved by utilizing sustainable water and energy sources to promote food and water security in DACs, and move the Encanto neighborhood towards a more sustainable future.

Resolve Water-Related Conflicts: The project will help reduce conflicts over imported and potable water supplies through reduction of potable demands from installation of greywater systems. It also helps improve food security in DACs by using greywater to irrigate fruit trees, reducing conflicts related to potable water demands and costs.

Meet Bay-Delta Objectives: The project will help meet two of the CALFED Bay-Delta program objectives: Water Supply and Ecosystem Restoration. By reducing potable water demand 8.5 AFY, the project will directly offset local imported water demands. Approximately one-third of the Region's imported water comes from the SWP. Therefore, this project will directly reduce local demand from the Bay-Delta by 2.8 AFY.

Address DAC Needs: This project directly addresses a critical water supply DAC need because it is implemented exclusively in a DAC, and addresses water supply needs identified in the *2013 IRWM Plan* by utilizing an alternative to potable water for irrigation needs to support food security in underserved communities. The associated cost savings realized by homeowners from the project will make the costs of the remaining potable water necessary for human health and needs easier for residents to manage.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in *Attachment 1*. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets four statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; and 4) Ensure Equitable Distribution of Benefits and indirectly meets one statewide priority: 1) Protect Surface/Groundwater Quality. Through reduced potable water demand, the project will address drought preparedness by conserving potable supplies. The project will also use water more efficiently by reducing water waste and utilizing greywater to meet irrigation demands (which also provides drought preparedness). Reduced potable water demand and utilization of greywater supplies contributes towards adaptation for climate change by preparing the region for impacts of potential climate change-driven droughts and improving water supply reliability. This project will be implemented in a DAC, ensuring an equitable distribution of benefits. The project will indirectly address protection of surface/groundwater quality through proper installation and maintenance of greywater systems, reduced runoff, and reduced discharges to the ocean outfall.

Project 3: San Diego Water Conservation Program

The *San Diego Water Conservation* program will reduce potable water demand and conserve water through turf replacement, and greywater systems, and will fund education and outreach on irrigation enhancements and water use efficiency. The project will address the Human Right to Water (below), six program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in three of the ways defined in the *2013 IRWM Plan*: partnership, resource management, and sustainability integration. Partnership integration has occurred through the City of San Diego's partnership with the Sustainable Living Institute and The Water Conservation Garden. The project also achieves sustainability integration through improving the sustainability of landscaping

using water-wise landscaping and greywater systems. The project also meets five objectives of the *2013 IRWM Plan*, meeting the Region's definition of resource management integration.

Resolve Water-Related Conflicts: The project will resolve water management conflicts by reducing potable water demands, allowing potable supplies to be used for potable needs, which is especially important during times of drought. Reduced potable demands also alleviates demands for imported water in the Region, thereby reducing conflicts related to use of SWP and Colorado River supplies.

Meet Bay-Delta Objectives: The project will meet the Water Supply and Ecosystem Restoration objectives of the CALFED Bay-Delta program through reduced demand for imported water. Imported water demand will be reduced through reduced potable water demands. This project will reduce local demand for imported water by 74.8 AFY. Approximately one-third of the Region's imported water comes from the SWP, so this project is expected to offset 24.7 AFY local demand from the SWP. Reduced local SWP demands will directly reduce local demand from the Bay-Delta, thereby supporting the Ecosystem Restoration and Water Supply objectives of the CALFED Bay-Delta program.

Address DAC Needs: This project will conserve potable water, which will then be available to address critical water supply needs in the Region (including DACs) to meet human health and sanitation needs. This conservation is especially important during times of drought when supplies are limited.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in *Attachment 1*. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification (including conservation/efficient use of resources) is a key part of the *2013 IRWM Plan*, and this project helps to increase conservation, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan* (see *Attachment 1*).

Address Statewide Priorities: The project directly meets three statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; and 3) Climate Change Response Actions and indirectly meets two statewide priorities: 1) Protect Surface/Groundwater Quality; and 2) Ensure Equitable Distribution of Benefits. Drought preparedness and reusing water more efficiently are addressed by the project's turf replacement and greywater system rebates, which will reduce potable demands and increase water reuse to meet non-potable demands. Similarly, the project will address potential climate change impacts, which are anticipated to include increased reliability issues with imported water (the Region's largest source of potable supply) and climate change-driven drought. These issues will be addressed by reducing water demands and increasing local, drought-proof, non-potable supplies. The project indirectly protects surface and groundwater quality by reducing irrigation and associated runoff, and indirectly ensures equitable distribution of benefits by benefitting the Region as a whole, including DACs.

Project 4: Ms. Smarty-Plants Grows Water-Wise Schools

The *Ms. Smarty-Plants Grows Water-Wise Schools* program will implement water conservation education, turf conversion, irrigation efficiency, and water-wise practices at 12 to 15 schools that serve students from disadvantaged communities (DACs). The project will address the Human Right to Water (see below), six program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in three ways, as defined in the 2013 IRWM Plan: partnership, resource management, and sustainability integration. Partnership integration has occurred through The Water Conservation Garden's partnership with the Helix Water District, Otay Water District, and local K-12 schools. The project also meets six objectives of the *2013 IRWM Plan*, meeting the Region's definition of resource management integration. Finally, the project meets the Region's definition of sustainability integration by promoting and implementing sustainable water practices and water conservation measures.

Resolve Water-Related Conflicts: The project will resolve water management conflicts by reducing potable water demands, which allows potable supplies to be used for potable needs, especially important during times of drought. It will also reduce water demands at schools which must balance recreation opportunities for students with local water conservation mandates resulting from the current drought. Helix and Otay Water Districts are each required to reduce water demands by 20%. Reduced potable demands also reduces demands for imported water in the Region, thereby reducing conflicts related to use of SWP and Colorado River supplies.

Meet Bay-Delta Objectives: The project will meet the Water Supply and Ecosystem Restoration objectives of the CALFED Bay-Delta through reduced demand for imported water. Imported water demand will be reduced through reduced potable water demands. Approximately one-third of the Region's imported water comes from the SWP, and because this project will reduce potable demands by 25 AFY, local demand for SWP supplies will be reduced by 8.3 AFY. Reduced local SWP demands will directly reduce local demand from the Bay-Delta.

Address DAC Needs: Water conservation benefits DACs in the Region by improving water supply reliability and conserving potable supplies for potable demands, including human health and sanitation needs. Critical water supply needs of DACs may be met by this conserved water during times of drought when supplies are limited.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in Attachment 1. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification (including conservation and efficient use of resources) is a key part of the *2013 IRWM Plan*, and this project helps to increase conservation, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan* (see *Attachment 1*).

Address Statewide Priorities: The project directly meets three statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; and 4) Ensure Equitable Distribution of Benefits, and indirectly meets one statewide priorities: 1) Protect Surface/Groundwater Quality. Drought preparedness and using water more efficiently are addressed by the project's school landscaping improvements and conservation course, which will reduce potable demands and increase water reuse to meet non-potable demands. Similarly, the project will address potential climate change impacts, which are anticipated to include increased reliability issues with imported water (the Region's largest source of potable supply) and climate change-driven drought by reducing water demands and increasing local, drought-proof, non-potable supplies. The project will target Title I schools, which serve students from DACs, ensuring an equitable distribution of benefits. The project indirectly protects surface and groundwater quality by reducing irrigation and associated runoff.

Rural Water Infrastructure Program

Project 5: Rural Disadvantaged Community Partnership Project – Phase III

The *Rural Disadvantaged Community Partnership Project – Phase III* program will provide funding for ten sub-projects to improve water and wastewater infrastructure and address water quality concerns in underserved rural disadvantaged communities. The project will address the Human Right to Water (below), six program preferences, and seven statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in three ways, as defined in the 2013 IRWM Plan: partnership, resource management, and sustainability integration. Partnership integration has occurred through the Rural Community Assistance Corporation (RCAC) partnership with DACs implementing the ten sub-projects under this program. The project also addresses ten objectives of the *2013 IRWM Plan*, meeting the Region's definition of resource management integration. It achieves sustainability integration by implementing water reclamation infrastructure, constructing additional infrastructure, providing technical capacity building, and environmental improvements.

Resolve Water-Related Conflicts: The project will resolve water management conflicts by reducing potable water demands, which allows potable supplies to be used for potable needs, especially important during times of drought. The sub-projects are designed to meet critical water-related DAC needs, reducing conflicts associated with leaking, inadequate, aging, and/or contaminated water infrastructure. This will help to increase water supplies, improve supply reliability and water quality, and protect human health and safety. Another conflict that will be resolved by this project is providing water supplies adequate to meet needs while storing enough for emergencies such as wildfires. The trash removal and bioswale components will help reduce conflicts between urbanization and natural resources. Further, the technical capacity building aspect of this project will ensure long-term sustainability of these sub-projects, reducing future water-related conflicts

Address DAC Needs: This project will directly address critical water supply and water quality DAC needs, because the sub-projects were selected specifically to address such needs. Nine DACs will directly benefit from this project. Critical water supply and drinking water quality needs of rural DACs will be addressed by the subprojects

implemented as part of the *Rural Disadvantaged Community Partnership – Phase III* program. Water shortages will be addressed through construction of additional storage and replacement of leaking storage tanks. Groundwater supplies will be made more accessible through construction of a new well and additional pumping equipment. Critical drinking water quality needs will be addressed through replacement of a leaky storage tank that poses a risk of contamination, as well as groundwater treatment systems to remove excess nitrates, iron, and manganese that currently exceed MCL standards.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in Attachment 1. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification and efficient use of water resources are key parts of the *2013 IRWM Plan*, and this project helps to increase conservation and meet Objective E of the *2013 IRWM Plan* (see *Attachment 1*).

Address Statewide Priorities: The project directly addresses all eight statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; and 3) Climate Change Response Actions; 4) Expand Environmental Stewardship; 5) Practice Integrated Flood Management; 6) Protect Surface/Groundwater Quality; 7) Improve Tribal Water/Natural Resources; and 8) Ensure Equitable Distribution of Benefits. Drought preparedness and reusing water more efficiently are addressed by the project's reclaimed water infrastructure, which will reduce potable demands and increase water reuse to meet non-potable demands. Similarly, the project will address potential climate change impacts, such as water supply reliability, increased risk of wildfires, and climate change-driven drought, by reducing water demands; increasing local, drought-proof, non-potable supplies; and increasing quality of local potable water. The project protects surface and groundwater quality by treating water for iron and manganese and removing trash, and directly ensures equitable distribution of benefits by benefitting targeted DACs, including Tribal DACs and other tribal lands. Tribal project sites will be located in the Pauma, Campo, and La Jolla Indian Reservations, and the San Pasqual Reservation. Environmental stewardship is addressed through the bioswale and trash removal sub-projects.

Water Reuse Program

Project 6: Integrated Water Resource Solutions for the Carlsbad Watershed

The *Integrated Water Resource Solutions for the Carlsbad Watershed* project will implement recycled water and low impact development (LID) strategies to offset potable water demands, reduce urban runoff, and implement water quality monitoring. It will address the Human Right to Water (see below), and addresses seven program preferences and seven statewide priorities. It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: The project includes all six types of integration defined in the *2013 IRWM Plan*: 1) partnerships with the Cities of Encinitas and Solana Beach, San Dieguito Water District, Santa Fe Irrigation District, Olivenhain MWD, and the San Elijo Lagoon Conservancy; 2) resource management through implementation of multiple IRWM Plan objectives; 3) beneficial use integration through support of multiple beneficial uses of waters in the project area; 4) geographical integration through implementation of the project across the Carlsbad and San Dieguito watersheds; 5) hydrological integration by providing three watershed services (infiltration, stream improvements, and reduced sedimentation); and 6) sustainability integration by increasing water recycling and recycled water use, and reducing pollutant loading to San Elijo Lagoon.

Resolve Water-Related Conflicts: This project will reduce water-related conflicts by increasing recycled water supply and use, reducing discharges to the San Elijo Ocean Outfall, and installing LID elements to reduce stormwater runoff, improving water quality in San Elijo Lagoon. These efforts will reduce potable water demands, allowing the offset water to be available for potable uses, including during times of drought, and reducing local demand for imported water. Improved water quality in San Elijo lagoon will support wildlife and recreation activities, and reduce potential beach closures due to water quality impairment.

Meet Bay-Delta Objectives: The project will address the Water Supply and Ecosystem Restoration objectives of the CALFED Bay-Delta program. Conserving water through managing demand will reduce demand for imported water. Approximately one-third of the Region's imported water is sourced from the SWP. By reducing local demand for imported water by 100 AFY, the project will directly reduce local demand from the Bay-Delta by 33 AFY.

Address DAC Needs: The project will indirectly address a critical water supply needs of a DAC by protecting water supply reliability in the Region through increased water reuse and associated offsetting of potable demand, which conserves potable water for potable needs.

Integrate Water Management with Land Use Planning: The project will integrate water management with land use planning through the installation of LID elements along Highway 101. These LID elements will reduce stormwater runoff and improve the quality of stormwater reaching San Elijo Lagoon.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: This project is included in the *2013 IRWM Plan* (see *Attachment 1*). The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how it will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets six statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; 4) Expand Environmental Stewardship; 5) Practice Integrated Flood Management; and 6) Protect Surface/Groundwater Quality. The project indirectly meets one statewide priority: 1) Ensure Equitable Distribution of Benefits. Reducing potable demand through increased recycled water use allows for the offset potable water to be used for potable purposes during drought, and is a local, drought-proof supply, helping to reuse water more efficiently and address potential climate change impacts. The LID component will help reduce stormwater runoff, and improve the quality of discharges to the San Elijo Lagoon. In combination with the water quality monitoring at the lagoon, this project will both expand environmental stewardship and protect surface and groundwater quality. Regional supply reliability benefits from potable offsets will be realized across the Region, including DACs.

Project 7: UCSD Water Conservation and Watershed Protection

The *UCSD Water Conservation and Watershed Protection* project will expand water reuse at a University of California, San Diego (UCSD) cooling tower, reuse HVAC condensate water, replace turf, monitor/treat stormwater, and implement watershed protection (including trash boom and clean-ups) in Tijuana River Valley. This project will address the Human Right to Water (see below), meet seven program preferences, and address five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: The project is integrated in four of the ways defined in the *2013 IRWM Plan*: partnership, resource management, beneficial use, and sustainability integration. UCSD has partnered with San Diego Coastkeeper, Urban Corps of San Diego, WildCoast, and community-based organizations to implement the project components. The project will implement ten of the objectives of the *2013 IRWM Plan* (resource management integration) and support multiple beneficial uses. It also supports sustainability integration, by reusing water wisely, and implementing sustainability measures such as LID and turf replacement.

Resolve Water-Related Conflicts: The project will help resolve conflicts over imported water supplies by reducing demand for potable water by 203 AFY and promoting conservation. These efforts will reduce potable water demands, including during times of drought, and reducing demand for imported water. It will also monitor stormwater quality discharging to San Diego Bay and the La Jolla ASBS, and reduce pollutant loading to these two sites, helping to improve water quality. This will help protect ecosystems and reduce the potential for beach closures as a result of impaired water.

Meet Bay-Delta Objectives: The project will address the Water Supply and Ecosystem Restoration objectives of the CALFED Bay-Delta program. Conserving water through managing demand will reduce demand for imported water. Approximately one-third of the Region's imported water is sourced from the SWP. By reducing local imported water demand by 203 AFY, the project will directly reduce local demand from the Bay-Delta by 67 AFY.

Address DAC Needs: The project will indirectly address critical water supply needs of a DAC by protecting water supply reliability in the Region through increased water reuse and offsetting potable demand, which conserves potable water for potable needs.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in *Attachment 1*. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see

Appendix 1-4). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets five statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; 4) Expand Environmental Stewardship; and 5) Protect Surface/Groundwater Quality. It indirectly meets one statewide priority: 1) Ensure Equitable Distribution of Benefits. The project address drought preparedness by reducing potable water demands through promoting conservation and provision of recycled/condensed water. The project will also help curb erosion and slow runoff flows. Climate change response actions will be met, because the project will help the region adapt to climate change by reducing reliance on imported water sources, which is a known climate change vulnerability in the Region. The project will protect surface water quality through reduced stormwater pollutant loading to San Diego Bay and the La Jolla ASBS. The project will also improve the Tijuana River Valley through trash and invasive species removal, expanding environmental stewardship. This project will improve water supply reliability, which benefits the Region as a whole, and indirectly ensures an equitable distribution of benefits.

Project 8: Escondido Advanced Water Treatment for Agriculture

The *Escondido Advanced Water Treatment for Agriculture* project will construct a new advanced water treatment facility to improve the water quality of recycled water delivered to agricultural customers in Escondido. It will address the Human Right to Water (below), as well as eight program preferences and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: The project includes three types of integration defined in the *2013 IRWM Plan*: 1) resources management integration through implementation of multiple IRWM Plan objectives, 2) geographic integration through supporting reuse in two groundwater basins, and 3) sustainability integration through production of additional recycled water which supports water sustainability in the Region.

Resolve Water-Related Conflicts: This project will reduce conflicts over water supply by providing recycled water suitable for agricultural irrigation, thereby reserving potable water for drinking water and other purposes. Advanced water treatment will reduce the salt content of recycled water delivered to agricultural users, and will reduce salt loading to surface and groundwater. This will help improve groundwater quality in the San Pasqual basin (CASGEM-designated Medium Priority) that is high priority for salt and nutrient management. This project also helps to address conflicts between urban and agricultural users over water use during times of drought by utilizing a sustainable supply for agricultural irrigation. It will reduce future water use conflicts by laying the groundwork for future potable reuse in the area, improving water supply reliability and reducing local imported potable water demands.

Meet Bay-Delta Objectives: The project will address two of the CALFED Bay-Delta objectives: Water Supply and Ecosystem Restoration. Approximately one-third of the Region's imported water comes from the Bay-Delta through the SWP. By reducing imported water demand by 1,110 AFY, the project will directly reduce local demand from the Bay-Delta by 366 AFY.

Address DAC Needs: As described in *Attachment 7*, 49% of the project benefit area qualifies as DAC by population. This project will protect water supply reliability by reducing potable demands and increasing recycled and advanced treated water use, including for DACs within the project benefit area. Because this project will be implemented by the City of Escondido, it will protect supply reliability in the city as a whole, indirectly benefitting all DACs within the city itself, which is approximately 43% DAC by area. Offsetting potable demands helps to conserve potable water for human health and sanitation needs, particularly in times of drought when supplies may be limited.

Integrate Water Management and Land Use: This project effectively integrates water management and land use by providing reclaimed water suitable to meet agricultural needs. This allows continued agricultural land use without placing additional or undue demands on potable water supplies.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: This project is included in the *2013 IRWM Plan* (see *Attachment 1*). The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly addresses four statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; and 4) Protect Surface/Groundwater Quality, and indirectly addresses one statewide priorities: 1) Ensure Equitable Distribution of Benefits. Through increased use of recycled water, expansion of a local-drought proof supply, and reduced potable water demand, the project will help with drought preparedness, and reuse water more efficiently. The project will also help address potential climate change impacts that may affect availability of imported water, such as drought or damage to imported water infrastructure that may result from changes in weather patterns. The project will directly address groundwater quality by improving the quality of recycled water applied through agricultural irrigation, reducing salt loading to the basin. The project will also indirectly ensure equitable distribution of benefits by offsetting potable water demands and ensuring that water supplies are available in the City of Escondido's service area, which includes DAC populations.

Project 9: Padre Dam Advanced Water Treatment – Phase I Expansion

The *Padre Dam Advanced Water Treatment – Phase I Expansion* will expand the Ray Stoyer Water Reclamation Facility by 4 mgd to deliver recycled water for irrigation and allow for future potable reuse. It will address the Human Right to Water (see below), meet six of the eight program preferences, and four of the eight statewide priorities, as shown in **Table 6-1**. It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in four of the ways defined in the *2013 IRWM Plan*: partnerships, resource management, sustainability, and beneficial use integration. This project includes partnerships between Padre Dam MWD and Helix Water District, County of San Diego, and City of El Cajon, and resource management integration through meeting multiple *2013 IRWM Plan* objectives. It also includes sustainability integration, because the recycled water created by the project is a local, drought-proof supply, resistant to the effects of climate change. Finally it includes beneficial use integration by supporting municipal/domestic supply and agricultural supply.

Resolve Water-Related Conflicts: The project will help resolve conflicts related to supply reliability by reducing demand for potable water by 1,008 AFY. In accordance with the Region's goal to reduce reliance on imported supplies, any potable water offsets will be used to offset local demand for imported water. In addition, the modeling and tracer study at Lake Jennings Reservoir will be used to help reduce potential conflicts associated with reservoir augmentation for potable reuse by providing a clear, scientifically-sound basis for decisions regarding use of the reservoir.

Meet Bay-Delta Objectives: The project will directly offset local demand for imported water through the creation of 1,008 AFY of recycled water for irrigation uses. Approximately one-third of the Region's imported water comes from the Bay-Delta through the State Water Project (SWP). This project will directly reduce local demand from the Bay-Delta by approximately 333 AFY, thereby supporting the Ecosystem Restoration and Water Supply objectives of the CALFED Bay-Delta program.

Address DAC Needs: This project indirectly provides DAC water supply benefits by developing a drought-proof local supply of non-potable water, which will offset potable demands, conserving potable water for potable needs for all customers within Padre Dam MWD's service area, including DACs. It also lays the groundwork for future potable reuse, which will further improve potable water supply reliability for DACs in Padre Dam MWD's and its partners' service areas.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in *Attachment 1*. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets four statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; and 4) Ensure Equitable Distribution of Benefits. Creation and use of a local, drought-proof supply will help Padre Dam MWD and Helix Water District weather droughts and potential impacts of climate change. Reuse of water for non-potable needs in the short-term and potable needs in the long-term will reduce reliance on imported water. Finally, because the water produced by the project off-sets district-wide potable water demands, associated supply reliability benefits will be

distributed equitably across Padre Dam MWD and Helix Water District's customer base, including the DACs served by both agencies.

Project 10: Safari Park Drought Response and Outreach

The *Safari Park Drought Response and Outreach* project will achieve potable water savings through turf conversion and expansion of existing wastewater treatment facility to reclaim and reuse wastewater at the Safari Park. It will address the Human Right to Water (below), meet six program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in three of the ways defined in the *2013 IRWM Plan*: partnership, resource management, and sustainability integration. Partnership integration is achieved through the Zoological Society of San Diego (Zoological Society) partnership with SDCWA and coordinated outreach efforts with San Diego Unified School District, San Diego County Office of Education, and schools throughout San Diego County. The project also directly meets five *2013 IRWM Plan* objectives (resource management integration), and addresses sustainability by developing a new recycled water source that is a local, drought-proof supply, resistant to the effects of climate change.

Resolve Water-Related Conflicts: By increasing recycled water production at use at the Safari Park, the Zoological Society will reduce its demand for groundwater. Groundwater used at the Safari Park comes from the San Pasqual Basin, which is a medium priority basin under CASGEM, and is monitored by the City of San Diego. Reduced groundwater pumping will reduce conflicts over the basin and the use of groundwater in the area. Increased supply diversification with local sources also reduces local imported water demands, thereby reducing water supply conflicts associated with high imported potable water demands. This project also improves quality of the recycled water at the park, reducing water quality conflicts associated with storage pond overflows during wet weather events. This project is upstream of the Hodges Reservoir, which faces water quality issues.

Meet Bay-Delta Objectives: The project will reduce local demand for imported water by 72 AFY through the increased production and use of recycled water for irrigation and non-potable uses. Approximately one-third of the Region's imported water comes from the Bay-Delta. This project will directly reduce local demand from the Bay-Delta by 24 AFY, thereby supporting the Ecosystem Restoration and Water Supply objectives of the CALFED Bay-Delta program.

Address DAC Needs: As with other projects offsetting potable water demands in the Region, this project indirectly addresses DAC water supply needs by improving potable water supply reliability for all users in the Region, including DACs.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in *Attachment 1*. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets four statewide priorities: 1) Drought Preparedness; 2) Reuse Water More Efficiently; 3) Climate Change Response Actions; and 4) Protect Surface/Groundwater Quality; and indirectly address one priority: 1) Ensure Equitable Distribution of Benefits. Recycled water is a drought-proof local supply that reduces demand for imported potable water, conserving potable supplies for potable needs. Water recycling is specifically noted in the *2015 Guidelines* as a climate change response action, because it helps to reduce wastewater loads, energy demands and GHG emissions. The project will directly address surface water quality through increased use of recycled water in lieu of imported water. The use of recycled water which is more highly regulated than potable water, will result in reduced runoff and associated salt and nutrient loading into waterways. The project will also indirectly ensure equitable distribution of benefits by offsetting potable water demands and ensuring that potable water supplies are available in the San Diego Region, including DACs.

Water Quality and Habitat Program

Project 11: San Diego River Healthy Headwaters Restoration

The *San Diego River Healthy Headwaters Restoration* program includes invasive species removal, restoration, and rehabilitation of impacted sites in the San Diego River watershed to improve habitat, water supply, and quality. The project will address the Human Right to Water (below), five program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in three of the ways defined in the *2013 IRWM Plan*: partnership, resource management, and sustainability integration. Partnership integration has occurred through the USDA Forest Service (USFS) partnership with the City of San Diego, Back Country Land Trust, San Diego River Park Foundation, Feral Pig Workgroup, and San Diego River Conservancy. The project also meets seven objectives of the *2013 IRWM Plan*, meeting the Region's definition of resource management integration. Sustainability integration is achieved through restoration of unauthorized recreation areas, protecting natural resources for future generation and reducing water quality impacts to the San Diego River. Other water quality improvements and habitat restoration efforts of this project will also promote the sustainability of the San Diego River and associated riparian and natural areas.

Resolve Water-Related Conflicts: This project will help address multiple water-related conflicts in the Region. *Section 5.7 San Diego River Watershed* of the 2013 IRWM Plan describes water management issues and conflicts specific to the San Diego River Watershed. Some of these conflicts include invasive species, which contribute to flooding, increase fire risks, and degrade native habitats, as well as sedimentation. Sedimentation and sediment build up in reservoirs is a problem throughout the Region, including the San Diego River Watershed. This project will remove invasive species, addressing flooding, fire, and native habitat concerns, and will reduce sediment loading to the river and its tributaries.

Meet Bay-Delta Objectives: The project will meet the Water Supply and Ecosystem Restoration objectives of the CALFED Bay-Delta because it will conserve up to 1,988 AFY water through invasive species removal. This conserved water will be used to offset local imported water demands, including water imported from the Bay-Delta through the SWP. Approximately one-third of the Region's imported water supply comes from the SWP, so this project will reduce local SWP demands by up to 656 AFY.

Address DAC Needs: This project increases local supply availability, thereby improving supply reliability in the Region. These conserved supplies can be used to meet critical water supply needs in the Region (including DACs), including during times of drought.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in Attachment 1. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets five statewide priorities: 1) Drought Preparedness, 2) Expand Environmental Stewardship; 3) Practice Integrated Flood Management; 4) Protect Surface/Groundwater Quality; and 5) Ensure Equitable Distribution of Benefits. The project will reduce the water consumed by invasive species, allowing additional surface water supplies to reach El Capitan Reservoir for storage and later use, helping prepare for drought. Environmental Stewardship is a keystone of the project, seen in the habitat restoration and invasive species removal. The removal of the invasive species and restoration of habit will help curb erosion and improve water quality. Invasive species removal also helps to reduce flooding, which is exacerbated when streams are constricted by invasive species. As described in Attachment 7, 56% of the *San Diego River Healthy Headwaters Restoration* project's direct benefit area qualifies as a DAC, ensuring equitable distribution of benefits by benefitting the Region as a whole, including DACs.

Project 12: Sweetwater Reservoir Wetlands Habitat Recovery

The *Sweetwater Reservoir Wetlands Habitat Recovery* project will restore and enhance habitat near Sweetwater Reservoir, including 75 acres Least Bell's Vireo habitat, enabling full use of Sweetwater Reservoir for storage.

The project will address the Human Right to Water (below), five program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Effectively Integrate Water Management: This project is integrated in three of the ways defined in the *2013 IRWM Plan*: partnership, hydrologic, and resource management integration. Partnership integration has occurred through the Sweetwater Authority (SWA) partnership with the SDCWA, California Conservation Corps, and Urban Corps of San Diego County. The project includes hydrologic integration, as it decreases erosion while separately improving the habitat-function of the channel. It also meets nine objectives of the *2013 IRWM Plan*, meeting the Region's definition of resource management integration.

Resolve Water-Related Conflict: The project increases water storage at Sweetwater Reservoir, reducing conflicts related to insufficient water storage or false water shortages caused by an inability to maximize storage in the reservoir when imported supplies are available. This project also integrates species protection and reservoir management by restoring Sweetwater River's ability to support riparian habitat while simultaneously improving functionality of the reservoir. This reduces conflicts between using water to protect threatened species (Least Bell's Vireo) and storing water to meet human needs.

Address DAC Needs: This project will increase supply storage at the Sweetwater Reservoir, providing water supply reliability for Sweetwater Authority customers. As described in Attachment 7, 54% of Sweetwater Authority's service area is DAC. A reliable water supply is crucial to meet critical water supply needs of DACs.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in Attachment 1. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase storage capacity for additional supplies (both local and imported), meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets five statewide priorities: 1) Drought Preparedness, 2) Expand Environmental Stewardship; 3) Practice Integrated Flood Management; 4) Protect Surface/Groundwater Quality; and 5) Ensure Equitable Distribution of Benefits. Increased storage at Sweetwater Reservoir will allow Sweetwater Authority to store additional water when available, and use it during times of drought when other supplies may be limited. Environmental Stewardship is a keystone of the project, seen in the habitat restoration improvement of the hydrological character of the channel. The restoration of habit will help curb erosion and improve water quality. The project directly ensures equitable distribution of benefits by benefitting Sweetwater Authority customers, 54% of whom are DACs.

Project 13: Hodges Reservoir Natural Treatment System

The *Hodges Reservoir Natural Treatment System* project will implement a constructed biofiltration wetland at Hodges Reservoir to treat seasonally degraded water quality in the reservoir and from upstream contributors. The project will address the Human Right to Water (below), seven program preferences, and five statewide priorities (**Table 6-1**). It is **fully certain** that this project will meet these preferences and priorities on a regional, state, or local level as described here.

Regional Project: In conjunction with the *Regional Emergency Storage and Conveyance System Intertie Optimization* project funded through a Prop 84-Drought Round IRWM grant, this project will help enable the Region to fully utilize its Emergency Storage Project (ESP), a regional water supply reliability project that will ensure the region's needs are met should an emergency disrupt imported water deliveries. Hodges Reservoir is a key component of the ESP, but cannot be utilized fully due to water quality issues. The project will help reduce nutrient loading to the reservoir, improving water quality in the reservoir, thereby helping to allow captured surface water to move from the reservoir into the Region's aqueducts.

Effectively Integrate Water Management: This project is integrated in three of the ways defined in the *2013 IRWM Plan*: partnership, resource management, and geographical integration. Partnership integration has occurred through the City of San Diego Public Utilities Department's partnership with Santa Fe Irrigation District, San Dieguito Water District, and SDCWA. The project also meets ten objectives of the 2013 IRWM Plan, meeting the Region's definition of resource management integration. By providing regional benefits, this project is also geographically integrated.

Resolve Water-Related Conflicts: The project will resolve water management conflicts by increasing availability of potable water to satisfy demands through improved water quality, especially important during times of drought when every drop is needed. It will resolve water management conflicts in times of drought by increasing the Region's ability to move water within its ESP system, and in wet years by allowing water to be moved from Hodges Reservoir to other storage sites in the regional system, thereby avoiding water lost to dam spills. Improvement of a local water source will reduce demands for imported water in the Region, thereby reducing conflicts related to use of SWP and Colorado River supplies.

Address DAC Needs: This project will benefit the entire Region, including DACs, by improving local water supply reliability, particularly in times of drought, when water stored in Hodges Reservoir would be moved into the regional system through the ESP, to meet critical water supply needs.

Part of an IRWM Plan that Reduces Reliance on Sacramento-San Joaquin Delta: The project is included in the *2013 IRWM Plan*, as described in Attachment 1. The *2013 IRWM Plan* was approved by DWR in June 2014, and passed the Plan Review Standard related to how the plan will help reduce dependence on the Delta (see **Appendix 1-4**). Supply diversification is a key part of the *2013 IRWM Plan*, and this project helps to increase local supply, reducing demand for imported water, and meeting Objective E of the *2013 IRWM Plan*.

Address Statewide Priorities: The project directly meets four statewide priorities: 1) Drought Preparedness; 2) Climate Change Response Actions; 3) Expand Environmental Stewardship; 4) Protect Surface/Groundwater Quality; and one indirectly: 1) Ensure Equitable Distribution of Benefits. Drought preparedness is addressed by the project's improvement of a local water supply, which will reduce potable demands and increase water reuse to meet non-potable demands. Similarly, the project will address potential climate change impacts by improving use of the ESP which could be used to meet water demand in the face of climate-change driven water emergencies. Creation of the wetland will expand environmental stewardship and protect surface water quality. The project will indirectly ensure equitable distribution of benefits by benefitting all users in the Region, including DACs.

Human Right to Water

Approximately 95% of the population of the San Diego IRWM Region is served by municipal water agencies, which all provide safe water for human consumption, cooking, and sanitary purposes. Therefore, any project that protects municipal water agency supplies (both quality and reliability) and water reliability will help address the Human Right to Water in the Region. Twelve of the thirteen projects in this Proposal will offset some amount of imported water, and all projects will improve water supply reliability in the Region. Imported water is less reliable than drought-proof local supplies, due to the potential for delivery restrictions in times of drought or service interruptions from catastrophic events such as earthquakes because the imported water distribution system crosses three earthquake faults before reaching the San Diego Region.

The *Rural Disadvantaged Community Partnership Project – Phase III* will implement water security projects in rural DACs that may not be served by a municipal water agency, directly addressing Human Right to Water in those communities. This project will improve drinking water quality and provide adequate water supply in the following ways to address the Human Right to Water:

- **Drinking water quality:** leaking storage tanks will be replaced, reducing risk of water supply contamination; nitrate, iron, and manganese treatment systems will be installed to treat groundwater exceeding MCLs for these constituents; and bioswales will be constructed to reduce pollutant loading of groundwater basins.
- **Adequate water supply:** leaking storage tanks will be replaced, reducing risks of tank failure and water loss; new tanks will be constructed to reduce water shortage frequency related to insufficient storage; new groundwater wells and pumping equipment will be installed to address on-going water supply shortages; recycled water use will be increased, reducing water costs and increasing potable supply availability; and potable water conservation will be expanded through improved understanding of water consumption rates.

This project will provide additional water-related benefits to DACs, including trash removal, improved surface water quality, flood protection through removal of creek constrictions, and increasing recreational areas.

Each of these four programs in the Proposal helps to reduce dependence on imported water and contributes to increased water supply reliability. Projects with conservation elements also contribute to maintaining affordability by reducing the need for securing additional, potentially costly, supplies. In so doing, these thirteen projects directly contribute to the Region's ability to address the Human Right to Water.