

City of San Diego Public Utilities Department

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# WaterSMART: Title XVI Water Reclamation and Reuse Program Funding for Fiscal Year 2020

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Prepared for: United States Bureau of Reclamation

Prepared by: City of San Diego

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**WaterSMART: Title XVI Water Reclamation and Reuse Program  
Funding for Fiscal Year 2020**

**Pure Water San Diego Program, North City Project**

**Technical Proposal  
(BOR-DO-20-F008)**

**Prepared for:  
United States Bureau of Reclamation**

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**February 18, 2020**

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Appendix D	Official Resolution No. R-310530





# Technical Proposal and Evaluation Criteria

## Chapter 1 Executive Summary

### Application Information

**Date:** February 18, 2020      **Applicant Name:** City of San Diego  
**City, County and State:** City of San Diego, San Diego County, California

### Amount of Water Reclaimed/Reused by the Project

The Pure Water Program will result in 83 mgd (93,000 acre-feet per year (AFY)) of reclaimed water. Phase 1 & 2 of the program (North City) will result in 30 mgd (33,600 AFY) of water suitable for potable reuse.

### Project Activities Summary

The City of San Diego is applying to the WaterSMART: Title XVI Water Reclamation and Reuse Program for \$14,161,923 for the North City Project (Project). This proposal comprises the first two phases of the Pure Water San Diego Program (Pure Water Program). Funding received will aide in the development of environmental documentation and construction document preparation for the Project. The Pure Water Program is a phased, multi-year program that will ultimately create 93,000 AFY of the anticipated 298,860 AFY of the City's water supply by 2035 or approximately 30%. The Pure Water Program produces a new source of supply for the production of potable water for San Diego, increases the amount of reclaimed water, and diverts wastewater flows from ocean outfalls. The result is a sustainable, resilient water supply that reduces the need for imported water while protecting the ocean. The Pure Water Program:

- Uses proven technology to produce safe, high-quality drinking water
- Provides a reliable, sustainable, locally controlled water supply
- Offers a cost-effective investment for San Diego's water needs

Eighty-five to ninety percent of the City's water is imported from the Colorado River and California State Water Project. The cost of this imported water is rising, having almost tripled in the last 10 years. This dependence on imported water and a lack of local control over its cost makes San Diego's water supply vulnerable to water shortages, droughts, climate change and natural disasters. The Pure Water Program will help solve San Diego's water challenges by enhancing the City's water supply. The Pure Water Program will also decrease the amount of treated wastewater that is released into the ocean by diverting wastewater flows away from the Point Loma Wastewater Treatment Plant (PLWWTP) and into the Pure Water system.

The North City Project will produce 30 mgd of purified water and will be completed by 2025 and is comprised of five main components. These elements include a new wastewater pump station that will collect additional wastewater flows and send the flows to the North City Water Reclamation Plant (NCWRP), where the wastewater will be treated to Title 22 standards. The NCWRP capacity will increase from 30 mgd to 52 mgd as part of the Project. The reclaimed water will be sent to a new North City Advanced Water Purification Facility (NCAWPF). The purified water produced at the NCAWPF will be of suitable quality for discharge to a local reservoir. Through new pump stations and conveyance pipelines, the purified water will be pumped to the Miramar Reservoir where it will stay until it is pulled into the existing water treatment system. The City had been reviewing the viability of pumping the water to



either the Miramar Reservoir or the San Vicente Reservoir. After study and evaluation, the Miramar Reservoir was selected as the better option to store the purified water.

## Chapter 2 Technical Project Description

The North City Project (Project) is a subset of the overall Pure Water Program. A brief description of the Pure Water Program is provided here to set the context of the Project.

### Pure Water Program Overview

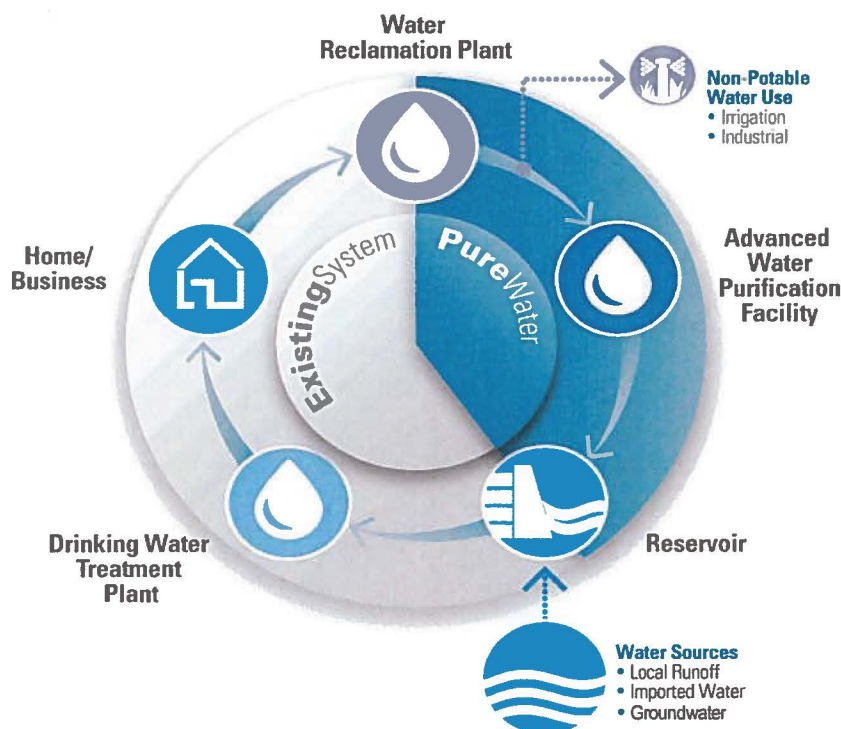
The Pure Water Program is a multi-year program that uses advanced water treatment technology to produce purified water from recycled water. The Pure Water Program will involve the planning, design, and construction of new advanced water treatment facilities, wastewater treatment facilities, pump stations, and pipelines as well as expansion of existing facilities. It will also include property and easement acquisition, financing, facility startup, testing, operation and maintenance of new facilities, and significant public education and community engagement.

#### What is Pure Water

San Diego's existing water system is primarily a single-use system. Approximately 10% of the water leaving homes and businesses is recycled; the rest is treated and released into the ocean. As shown in Figure 2-1, the Pure Water Program uses advanced water purification to transform the City's water system into a complete water cycle that maximizes our use and reuse of the world's most precious resource—water.

**Figure 2-1: Pure Water Completes the Water Cycle**

### What is **Pure** Water?







## Where is the Pure Water Program?

The new Pure Water Program facilities, which will be spread in various parts of the City as illustrated in Figure 2-2, are grouped into three geographical areas to facilitate Program Implementation. Phases 1 & 2, will comprise the North City Projects. Phase 3 will comprise the Central Area and South Bay projects.

**Figure 2-2: Pure Water Program Map**



## What is the Timeline for the Pure Water Program:

The Pure Water Program will be implemented in phases, ending in 2035. The timeline for the Program was established as part of the City's recent application to the Environmental Protection Agency (EPA) for a waiver from the federal Clean Water Act for the City's Point Loma Wastewater Treatment Plant (PLWWTP). The North City Project will be completed first. The Project will meet the Phase 1 goal of 15 mgd, and support early completion of the Phase 2 goal of 30 mgd before 2025. Construction of the North City Project began in 2019.



## Current Program Status

The Program has completed its startup stage that 'stood up' the program governance and validated the Program phases, projects, schedule and budget. Startup efforts resulted in a fully developed Program Schedule.

## North City Project

With the Program startup activities completed, the focus of the Program team has shifted to delivery of the North City Project (Project) which includes the following:

- Morena Pump Station, Force Main and Brine Conveyance: needed to increase wastewater flow to NCWRP (NC05)
- NCWRP Expansion: expansion of existing water reclamation plant from 30 mgd to 52 mgd of Title 22 water that is needed to produce 30 mgd of purified water (NC06)
- North City Influent Conveyance: needed to connect the NCWRP and NCAWPF (NC01)
- NCAWPF: treats reclaimed water from the NCWRP (NC02A)
- North City Conveyance: pipeline and pump station(s) to deliver purified water to the Miramar Reservoir (NC03A/NC04A)
- North City Cogeneration Facilities Expansion (NC07)

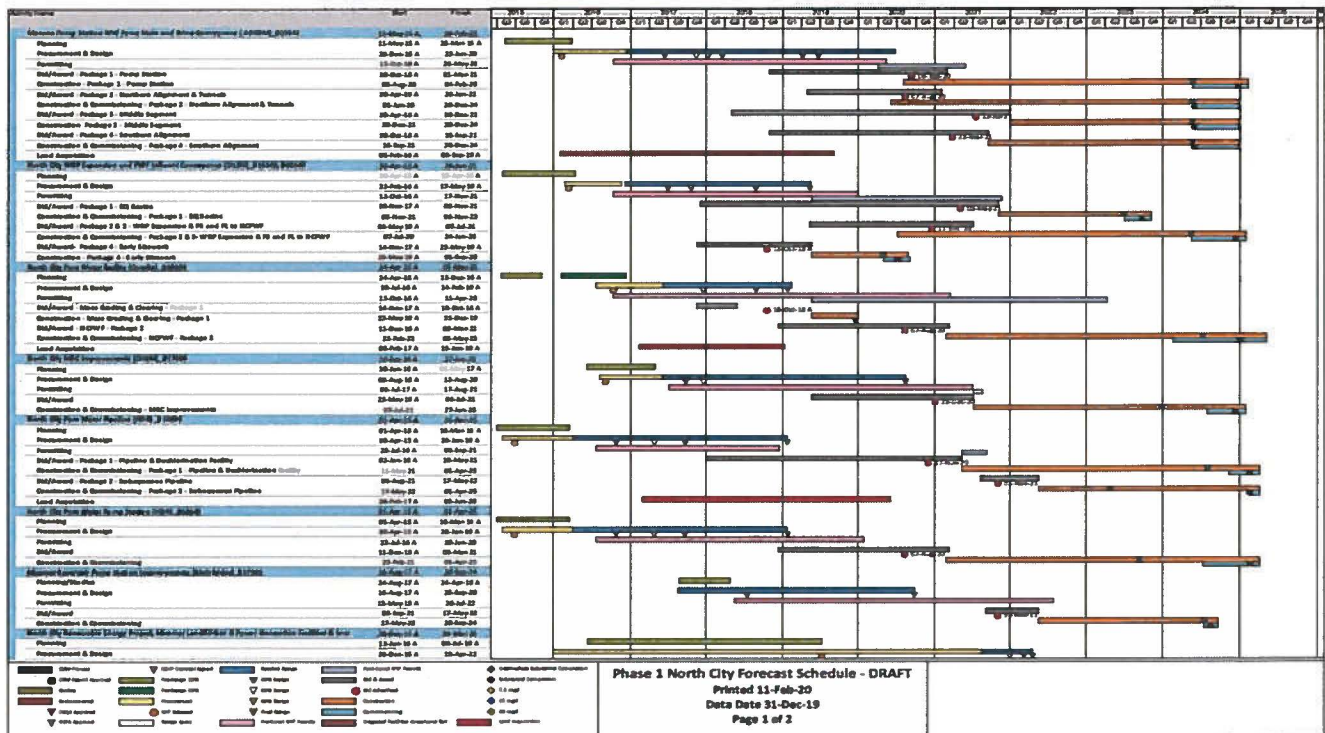
The City has completed 100% design on the facilities required to convey purified water to the Miramar Reservoir. The Project thru December 2019 is expected to cost \$14,161,923. Overviews of the Project components listed above are provided on the following pages.





## North City Project Detailed Schedule

The North City Project components design have been completed. Advertisement of construction packages will take place based on the tentative schedule shown below.



## Morena Pump Station, WW Force Main and Brine Conveyance

The Morena Pump Station will be located within the proximity of Friars Road and Interstate 5 (I-5). This pump station will collect wastewater flows from four pipelines, the North Mission Valley Interceptor, Morena Boulevard Interceptor, Morena Boulevard Trunk Sewer, and East Mission Bay Trunk Sewer. Flows will be conveyed to the NCWRP through a 13 mile force main. This pump station will provide 12 mgd to 37 mgd of wastewater, augmenting the current wastewater flow to the North City Water Reclamation Plant.

This component of the Project also entails the design and construction of a brine line from the Reverse Osmosis process at NCAWPF which will convey brine back by gravity via a 13-mile pipeline to the Morena Pump Station area and discharge it to a sewer downstream of the Morena Boulevard diversion structures. The brine will then be conveyed to Pump Station No. 2 (PS2) where it will be sent to the Point Loma Wastewater Treatment Plant or treated at the future Central Area Water Reclamation Plant. The brine pipeline and force main will reside in the same corridor.

## North City Water Reclamation Plant (NCWRP)

The NCWRP is an existing 30-mgd facility delivering approximately 7,500 AFY (or 6.7 mgd annual average) of Title 22 recycled water to irrigation and industrial customers throughout the northern San Diego region, including the City of Del Mar, City of Poway, and northern San Diego communities such as Mira Mesa, Rancho Penasquitos, Scripps Ranch and Rancho Bernardo. With the addition of the Morena Pump Station, NCWRP's influent flows will increase to 52 mgd, and therefore the NCWRP will be expanded from its current capacity of 30 mgd. The higher flows and



plant expansion are needed to satisfy the additional requirements of the Project while continuing to meet projected non-potable reuse (NPR) demands.

As shown on Figure 2-3, the existing NCWRP consists of preliminary treatment, primary sedimentation, primary effluent flow equalization, secondary aeration with full nitrification and partial denitrification, secondary clarification, deep bed anthracite filtration, and chlorine disinfection. Chlorine disinfection is provided to meet the requirements specified in the Title 22 Water Recycling Criteria (CCR, 2014) for the current non-potable uses of the recycled water.

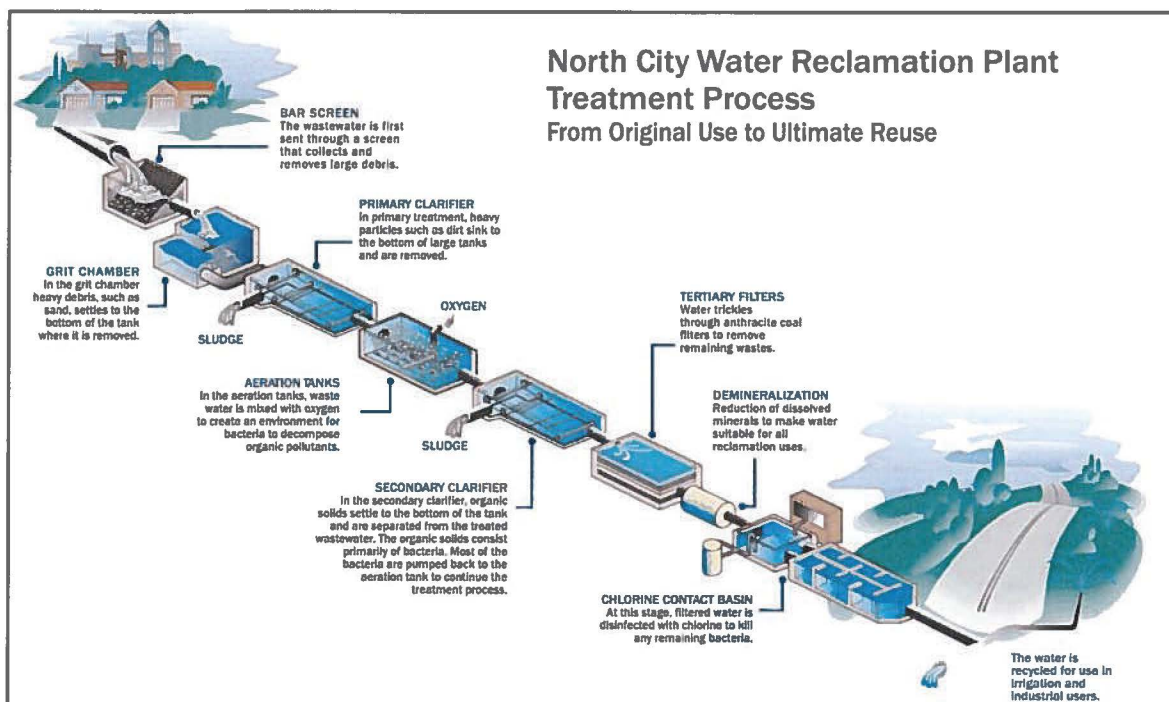
An aerial photo of the NCWRP is shown on Figure 2-4.

To ensure 30 mgd of purified water can be produced from the NCAWPF, each process at the NCWRP will be expanded to effectively process up to an annual average flow of 52 mgd. At the expanded capacity, the NCWRP will be able to produce enough tertiary effluent to deliver up to an annual average of 12 mgd for non-potable reuse (NPR) and a minimum of 30 mgd of purified water for potable reuse.

The expanded NCWRP facilities are expected to include an additional bar screen, grit pumps, primary sedimentation tanks, aeration basins, secondary clarifiers, and tertiary filters along with additional ancillary and support systems. The expansion may incorporate chemically enhanced primary treatment and denitrification filters.

The expanded biological treatment process at the NCWRP will employ the same Modified Ludzack-Ettinger process currently used at the NCWRP. The City has implemented significant stress and other testing of the facilities as part of the pre-design of the expansion to ensure a robust treatment operation.

**Figure 2-3: NCWRP Treatment Process**







**Figure 2-4: Aerial Photo of the North City Water Reclamation Plant**



### North City AWPf Influent Conveyance

The North City AWPf Influent Conveyance component of the Project will convey a constant flow of tertiary effluent from the North City Water Reclamation Plant (NCWRP) to the new North City Advanced Water Purification Facility (NCAWPf). It includes new equalization basins, an influent pump station, and a tertiary effluent pipeline connecting the two treatment facilities.

The NCAWPf will be located across the street from the NCWRP, on the north side of Eastgate Mall. In order to convey the tertiary effluent from the NCWRP to the NCAWPf, the NCAWPf Influent Pump Station is required at the NCWRP site. The pump station will be located west of the tertiary filters to divert tertiary effluent from upstream of the chlorination facilities and pump it to the membrane filtration facility at NCAWPf.

Flow equalization basin(s) ahead of the NCAWPf will help equalize the diurnal flow fluctuations and homogenize the influent water characteristics before treatment. One of the existing NCWRP chlorine contact tanks can be repurposed to provide equalization.

### North City Advanced Water Purification Facility (NCAWPf)

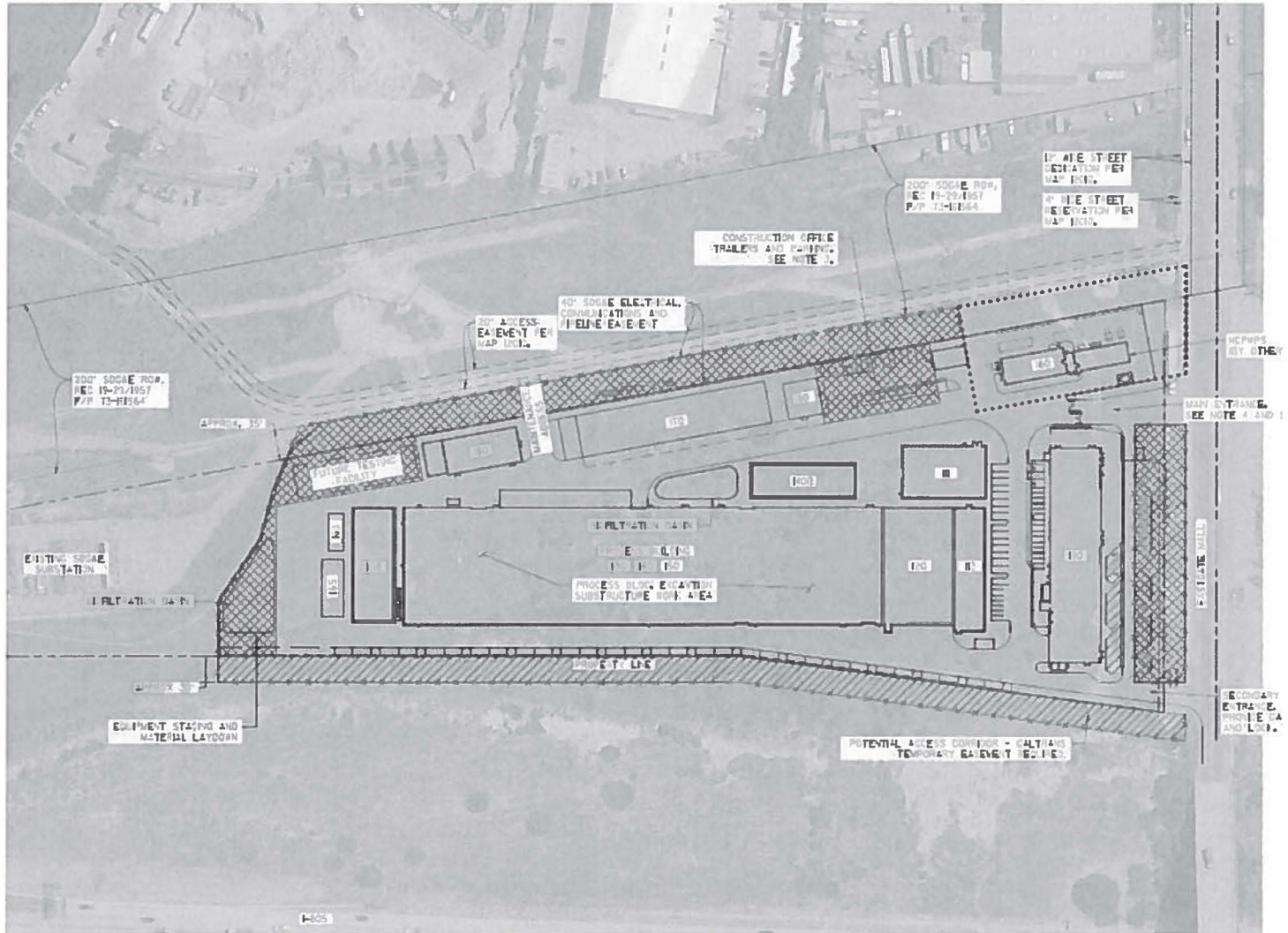
To treat the reclaimed water from NCWRP to potable reuse standards, the City will build a 30-mgd NCAWPf that will meet the intent of the draft Surface Water Augmentation regulations currently under development by the State Division of Drinking Water (DDW). Approximately 3 mgd of additional purified water will also be produced for blending with of the NCWRP Title 22 effluent to satisfy the non-potable reuse demands and for plant water needs. The site for the NCAWPf is a City-owned 8.7-acre site located across the street from the existing NCWRP, on the north side of Eastgate Mall.





This component of the Project includes site improvements; an operations, maintenance and administration building; and a new advanced water purification facility, including various treatment processes, chemical feed systems, transfer pumping between processes, instrumentation and controls. Production of purified water involves a number of advanced water treatment processes. The basic process configuration includes Ozone (O3) treatment and biological activated carbon (BAC) filters, Microfiltration (MF) and Reverse Osmosis (RO), followed by Ultraviolet (UV) Light disinfection and an Advanced Oxidation Process (AOP).

A conceptual layout for the NCAWPF is provided as Figure 2-5. \\Figure 2-5: NCAWPF Conceptual Layout







## North City Conveyance Projects

A purified water pump station and pipeline are needed to convey purified water produced at the NCAWPF to the Miramar Reservoir. The purified water will be pumped from NCAWPF and conveyed approximately 10 miles to the Miramar Reservoir.

## North City Cogeneration Facilities Expansion

The City desires to construct a cogeneration (cogen) facility on the North City site to assist with the power supply needs of the new NCAWPF and the expanded NCWRP, as well as the effluent pump station to the Miramar Reservoir. The City is currently considering a Public Private Partnership for the Cogen project.

There are two existing cogeneration facilities located at North City: a facility privately owned by Fortistar and another plant owned by the City of San Diego. Both facilities use landfill gas, which Fortistar maintains the right to use as their fuel source. The Fortistar facility provides power to the existing NCWRP, and sells power back to the grid. The City's facility provides shortfall power to the NCWRP and also sells power back to the grid. Fortistar is under contract to operate their facility to provide power to the City. Eventually, the City may replace the Fortistar facilities with additional City-owned cogen units.

## **Awards**

The Pure Water Program in general and the North City Project in particular have devoted a significant level of effort to public outreach. The City has recently received several awards for the efforts in communicating the benefit of potable water re-use and the overall Program. The following is a list of awards received in the last few years:

- 2015 U.S. Water Alliance Water Prize
- 2015 California Association of Sanitation Agencies Public Outreach and Education Achievement Award
- 2014 Public Relation's Society of America's Silver Bernay's Award
- 2014 Water Reuse Association CA Community Outreach & Public Education Program of the Year Award

## **Supporters**

The Pure Water Program and the North City Project have many local and regional supporters. A list of stakeholders and organizations that have written letters of support is listed below:

List of Supporters	
Asian Business Association	San Diego Audubon Society
BIOCOM	San Diego Business Leadership Alliance
Building Industry Association of San Diego County	San Diego Coastkeeper*
California Restaurant Association, San Diego County chapter	San Diego Regional Chamber of Commerce*
City of Imperial Beach	San Diego Regional Economic Development Corporation
Coastal Environmental Rights Foundation	San Diego River Park Foundation
CONNECT	Surfrider Foundation, San Diego County chapter
Equinox Center	WateReuse Association, San Diego chapter



Industrial Environmental Association  
Metro Wastewater Joint Powers Authority

United States Environmental Protection Agency\*  
San Diego County Water Authority  
Congressman Scott Peters\*

\*Letters of support provided in Attachment A

## Past Working Relationships with Bureau of Reclamation

The Bureau of Reclamation and the City of San Diego (City) have worked cooperatively on over 31 projects since 1998 under the Title XVI Water Reclamation and Reuse Program. Funding for authorized Title XVI projects within the San Diego Area has amounted to over \$153 million during this time, of which \$81.8 million has been awarded to the City of San Diego. The City continues to work with the Bureau of Reclamation on projects which have been completed in preparation for the Pure Water San Diego Program and the North City Project. Most recently the City was awarded a total of \$28,417,379 under the BOR WaterSMART Fiscal Years 2016, 2017, 2018 and 2019 programs towards the Pure Water Program, North City Project.

The majority of projects funded through the Title XVI Program have been for the delivery of recycled water to customers for irrigation and industrial use from the North City WRP and South Bay WRP. This cooperative relationship has assisted the City in meeting water demands while reducing the dependence on imported water. The Title XVI Program has provided funds in the construction of recycled water pipelines to deliver recycled water to customers for irrigation, manufacturing, and other non-drinking, or non-potable uses.

In addition, cooperative agreements with the Bureau of Reclamation have assisted the City in actively pursuing the development of local water sources for beneficial purposes through groundwater exploration. The City has worked to determine the water supply production of potential groundwater basins including the Santee- El Monte Basin, Mission Valley and San Diego Formation.

Authorized projects related to the Pure Water Program and the North City Project which has been awarded Title XVI funding is as follows:

### Recycled Water Study Project

The Recycled Water Study identified opportunities to increase recycling and reclamation of wastewater for potable and non-potable uses. The study examined potential costs of implementing such opportunities, and to what extent such recycling and reclamation could feasibly offload wastewater flows to the Point Loma Wastewater Treatment Plant (PLWWTP). Additional goals included identification and evaluation of recycling alternatives that would result in maximizing recycling of the City's wastewater to the fullest extent practicable, and evaluating opportunities to increase recycled water reuse at satellite facilities or a regional recycled water agency using wastewater generated by the Participating Agencies of the Metro Joint Powers Authority (Metro JPA).

The study investigated opportunities for Reservoir Augmentation and was awarded \$593,912 in Title XVI funds. The Study may be obtained at <http://www.sandiego.gov/water/pdf/purewater/2012/recycledfinaldraft120510.pdf>.

### Indirect Potable Reuse/Reservoir Augmentation Demonstration Project





The City developed the Potable Reuse/Reservoir Augmentation Demonstration Project and worked cooperatively with the Bureau of Reclamation in the design, planning, and construction of the crucial Phase Two of the Demonstration Project. Phase Two consisted of a demonstration scale advanced water purification facility to provide the technical, water quality, environmental, regulatory, funding, and public outreach requirements necessary to implement a full-scale project. The current phase (Phase Three) uses tertiary treated wastewater to create an estimated 12,000 acre-feet per year of purified water for potable reuse for the City of San Diego. The City was awarded \$3,109,360 in Title XVI funding for the Indirect Potable Reuse Demonstration Project.

## Chapter 3 Technical Proposal: Evaluation Criteria

### Evaluation Criterion 1: Water Supply (35 Points)

#### Subcriterion No.1a. Stretching Water Supplies (18 Points)

**1. How many acre-feet of water are expected to be made available each year upon completion of the Project? What percentage of the present and/or future annual demand in the project sponsor's service area will the Project's reclaimed water provide upon Project completion? The percentage should be based on the total service area demand, not just recycled water demand. Use the total capacity of the entire Project upon completion, not just the water that will be produced by the activities that will be completed over the next two years.**

#### Response:

The City committed to the EPA to complete the first phase of the North City Project to deliver 15 mgd (16,800 AFY) of potable reuse supply by 2023 with the second phase providing another 15 mgd (16,800 AFY) of potable reuse supply by 2027. The City is serious about meeting these commitments and has accelerated the delivery of the Project with the first 30 mgd (33,600 AFY) by 2025. Figure 3-1 illustrates the City's commitment.

The Pure Water is a phased, multi-year program that will ultimately create 93,000 AFY of the anticipated 298,890 AFY of the City's water supply by 2035 or approximately 30%.

**Figure 3-1: Pure Water Commitments and Goals**

Program Phase	Cumulative Flow Commitments	Accelerated Project Delivery Goals	Location
1	15 mgd (16,800 AFY) (by 2023)	30 mgd (by 2025)	North City
2	30 mgd (33,600 AFY) (by 2027)		
3	83 mgd (93,000 AFY) (by 2035)	83 mgd (93,000 AFY) (by 2035)	Central Area South Bay



**2. Will the Title XVI project reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies?**

**Response:**

Yes. The Project will reduce the need for development of new or expanded non-recycled water supplies. A reduction in imported water supplies is a benefit not only to the City's existing water infrastructure, but also the imported water infrastructure managed by other agencies. The City's water wholesaler, the San Diego County Water Authority (SDCWA), in its 2013 Regional Water Facilities Master Plan Update notes that these projects have the ability to significantly delay or forgo future SDCWA investments in new infrastructure and any decision on new regional supply development projects. These improvements to the water supplies also have the benefit of deferring and/or eliminating scheduled improvements to the City's Metropolitan Sewerage System (Metro System). The Metro System is the largest wastewater system in San Diego County. The system is managed by the City and Participating Agencies and serves a 450-square mile area that includes incorporated areas of the City and 12 cities and districts. The PLWWTP, the main wastewater treatment plant for the Metro System, continues to operate as an advanced primary treatment facility and the ability to operate the plant without secondary upgrades continues to be debated and may not be allowed in the future. The benefits of this Project are twofold, deferring and/or eliminating the secondary upgrade to the PLWWTP by reducing TSS Mass Emissions while creating a new local water supply for the region. The total cost to upgrade the PLWWTP upgrade to secondary treatment is estimated to cost \$2.1 billion dollars and will result in no additional water source.

**3. Will the Project alleviate pressure on existing water supplies and/or facilities? If so, please describe the existing water supplies, identify the supplies and/or facilities that will be impacted and explain how they will be impacted by the Project, including quantifications where applicable.**

**Response:**

The City receives its imported water from the regional water wholesaler, San Diego County Water Authority (SDCWA). The imported water is a blend of local, State (Bay-Delta) and Federal (Colorado River) waters and varies from year to year based on availability. The City maintains records of purchases from SDCWA and the SDCWA publishes annual data of supplies from the Bay-Delta and Colorado River. Table 3-1 presents the combined data of purchased water and the quantity of water from each imported source between 2004 and 2016:

**Table 3-1: City of San Diego Imported Water Use and SDCWA Supplies from Each Imported Water Source**

Fiscal Year	Water Purchased from SDCWA <sup>1</sup> (AF)	Bay-Delta		Colorado River	
		Percentage of SDCWA Supply <sup>2</sup>	Volume of Water Imported to the City of San Diego (AF)	Percentage of SDCWA Supply <sup>2</sup>	Volume of Water Imported to the City of San Diego (AF)
2004	228,620.8	32%	73,158.7	62%	141,744.9
2005	204,199.2	39%	79,637.7	50%	102,099.6





2006	197,997.1	34%	67,319.0	50%	98,998.6
2007	227,295.6	41%	93,191.2	48%	109,101.9
2008	205,698.6	34%	69,937.5	54%	111,077.2
2009	203,333.5	15%	30,500.0	71%	144,366.8
2010	188,391.0	11%	20,723.0	76%	143,177.2
2011	163,040.5	18%	29,347.3	61%	99,454.7
2012	165,497.2	32%	52,959.1	49%	81,093.6
2013	180,847.9	23%	41,595.0	51%	92,232.4
2014	186,227.5	8%	14,898.2	69%	128,497.0
2015	192,400	15%	28,860	76%	146,224
2016	155,329	3%	4,659.9	81%	125,816.5
Average	192,221.3	26%	46,675.9	58%	117,221.8
1. Information provided by the City of San Diego Water Operations Division based on SDCWA meter data. 2. SDCWA supply percentage from SDCWA Annual Reports from 2004 thru 2016					

Shown in Table 3-1, 48% to 81% of SDCWA's water supplies were sourced from the Colorado River with a sharp increase of 20% between 2013 and 2015 due to the historic drought in California. Governor Brown's Executive Order B-29-15 for mandatory water use restrictions had mandated a 16% reduction for the City of San Diego. The average percentage and volume of imported water from the Colorado River between 2004 and 2016 as stated in Table 3-1 was used as a conservative approach to determine the amount of reduction in federal water supply demand. Tables 3-2 and 3-3 characterize the reduction in imported water supplies from the Bay-Delta and the Colorado River anticipated from the implementation of the Pure Water Program along with the projected imported water needs identified in the 2015 Urban Water Management Plan prepared by the City of San Diego.

**Table 3-2: Reduction Percentage of Imported Water Supplies from the Bay-Delta**

Fiscal Year	Projected Imported Water Supplies (AF) <sup>1</sup>	Pure Water Production (AF)	Bay-Delta				
			Avg. Percentage of SDCWA Supply	Avg. Volume of Water Imported City of San Diego Without the Pure Water Program (AF)	Volume of Water Imported to the City of San Diego with Pure Water Program (AF)	Reduction in Imported Water Demand (AF)	Percent Reduction in Imported Water Demand
2020	200,984	-	26%	52,255.8	52,255.8	0	-
2025	242,038	33,600	26%	62,929.9	54,193.9	8,736.0	14%
2030	264,840	33,600	26%	68,858.4	60,122.4	8,736.0	13%
2035	273,748	93,000	26%	71,174.5	46,994.5	24,180.0	34%
2040	273,408	93,000	26%	71,086.1	46,906.1	24,180.0	34%

1. Volume derived from Table 4-7 of the City of San Diego 2015 Urban Water Management Plan

**Table 3-3: Reduction Percentage of Imported Water Supplies from the Colorado River**

Fiscal Year	Projected Imported Water Supplies (AF) <sup>1</sup>	Pure Water Production (AF)	Colorado River				
			Avg. Percentage of SDCWA Supply	Avg. Volume of Water Imported City of San Diego Without the Pure Water Program (AF)	Volume of Water Imported to the City of San Diego with Pure Water Program (AF)	Reduction in Imported Water Demand (AF)	Percent Reduction in Imported Water Demand
2020	200,984	-	58%	116,570.7	116,570.7		-
2025	242,038	33,600	58%	140,382.0	120,894.0	19,488.0	14%
2030	264,840	33,600	58%	153,607.2	134,119.2	19,488.0	13%
2035	273,748	93,000	58%	158,773.8	104,833.8	53,940.0	34%
2040	273,408	93,000	58%	158,576.6	104,636.6	53,940.0	34%

1. Volume derived from Table 4-7 of the City of San Diego 2015 Urban Water Management Plan

As noted in Tables 3-2 and 3-3 above the Project will produce a total of 33,600 AFY of purified water reducing the total imported water demand by 28,224 AFY by 2025 with 8,736 AFY being reduced from the Bay- Delta and 19,488 AFY reduced from the Colorado River. Subsequently the Pure Water Program will reduce the need for imported water supplies by 78,120 AFY with 24,180 AFY reduced from the Bay- Delta and 53,940 AFY reduced from the Colorado River.



The North City Project will produce water locally, it will decrease the need for imported water for the City thereby reducing the existing Federal water supply demand from the Colorado River and diversions from the Bay-Delta. The reduction in imported water demand has been calculated in Tables 3-2 and 3-3 above and is summarized in Table 3-4, below:

**Table 3-4: Reduction of Total Imported Water Supplies**

Program Phase	Accelerated Project Delivery Goals	Location	Reduction Imported Water Bay-Delta (AFY)	Reduction in Imported Water Colorado River (AFY)	Total Reduction Imported Water (AFY)
1	30 mgd (33,600 AFY) (by 2025)	North City	8,736	19,488	28,224
2			(14%)	(14%)	(14%)
3	83 mgd (93,000 AFY) (by 2035)	Central Area South Bay	24,180 (36%)	53,940 (36%)	78,120 (36%)

**4. What performance measures will be used to quantify actual benefits upon completion of the project?**

**Response:**

The performance measures that will be used to quantify actual benefits upon completion of the Project include:

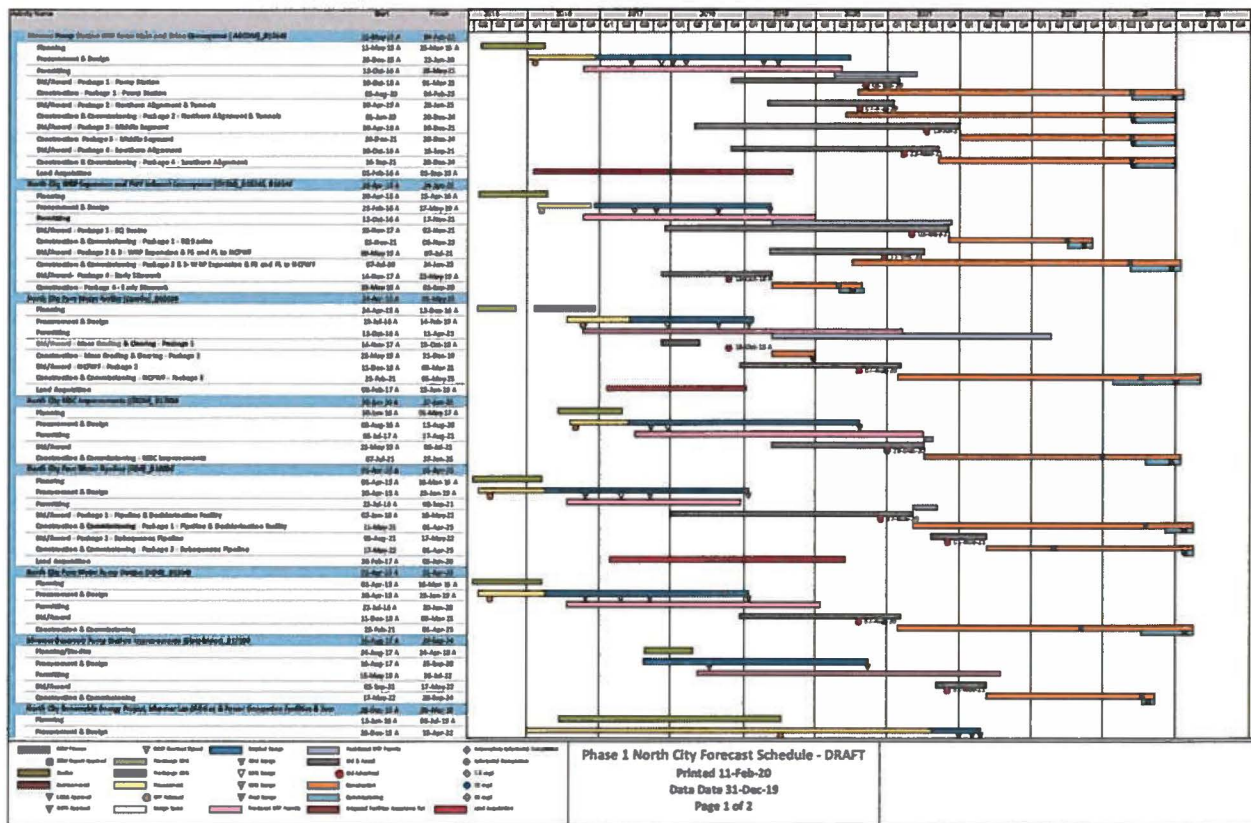
- Pure Water production that meets Program goals of 30 mgd by 2025. Amount of imported water need is offset by Pure Water production and will be monitored by monthly and annual purchases from the regional wholesaler of water, San Diego County Water Authority.
- PLWWTP ocean outfall discharge reduction (measured by Total Suspended Solids (TSS) Mass Emissions)

Monthly and annual flow recordings of purified water produced at the NCAWPF and Recycled Water produced at the NCWRP will be made available. In addition, TSS Mass Emissions discharged from PLWWTP will be monitored and reported.

A Program Management Plan has been developed and outlines short-term performance measures that will be used to monitor the health of the overall Pure Water Program. North City Projects will be monitored via the Project Delivery System which has a series of steps and Stage Gates that include Monthly Project Status Reports and meetings. These status reports will monitor each North City Project component's schedule and budget against the approved baseline. Any changes to the overall Project cost or schedule will require a formal review and approval process as part of the Program Management Plan.

North City Project Schedule Milestones will be monitored against the schedule, shown on Figure 3-2.



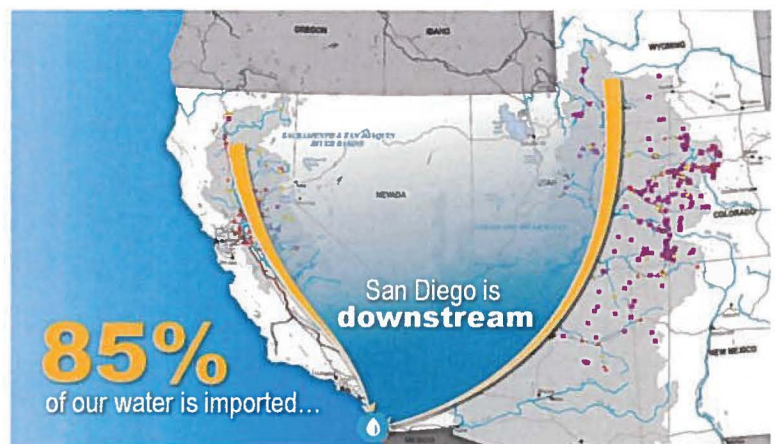


## Subcriterion No.1b. - Contributions to Water Supply Reliability (17 Points)

**1. Will the Title XVI Project make water available to address a specific concern?**  
**Consider the number of acre-feet of water and/or the percentage of overall water supply to be made available by the Project. Explain the specific concern and its severity. Also explain the role of the Title XVI Project in addressing that concern and the extent to which the Project will address it.**

### Response

The North City Project will produce 33,600 AFY of water that will be made available by 2025 to support the region. The City relies on two main sources of imported water, the Bay-Delta and the Colorado River, to supply 85 to 90 percent of its water. The overarching goal of the Pure Water Program is to produce 93,000 AFY of the City's potable water by 2035. This Project will provide approximately the first third of this amount. The purified water produced will establish some local







control over the water supply and address the City of San Diego's water supply concerns:

**Concern: Rising Population, Lack of Local Rainfall and Limited Underground Aquifers**

**Severity: HIGH**

The City has maintained aggressive conservation efforts that have met the 16% reduction for the City of San Diego Governor Brown's Executive Order B-29-15 for mandatory water use restrictions. However, a 23% increase in population from 2015 to 2040 is anticipated, as documented in Table 3-1 of the City of San Diego's 2015 Urban Water Management Plan (UWMP). The UWMP is closely aligned with a 25% increase in population for the County of San Diego as described in SANDAG's 2050 Regional Growth Forecast

The City has nine local surface water reservoirs with more than 408,000 AF of capacity, which are connected directly or indirectly to three water treatment plants. These reservoirs capture local rainwater and runoff to supply approximately 12 percent of the City's water. The City's reservoir system operates in combination with the imported water system. San Diego has a Mediterranean to semi-arid climate when classified using the Koppen climate classification system, which is characterized by warm, dry summers and mild winters with some rain. Local rainfall and runoff into the reservoirs stores only a portion of the City's water supply. Between the fiscal years of 1990 and 2015 an average of 30,800 AFY (14%) of the City's water supply was from local sources with a variation of 72,010 AFY (30%) in 1997 and 6,100 AFY (3%) in 2010. This represents a low quantity of rainfall supplies with high variability.

The City has identified development of groundwater as a viable source identifying 14,000 AFY from ground water basins as stated in the 2012 Long Range Water Resource Plan.

There are several groundwater basins in the San Diego Region that the City has rights, concerns, jurisdiction and an interest in developing for municipal supply or other beneficial uses. These basins are:

- San Pasqual Basin
- Mission Valley Basin
- Santee/El Monte
- Tijuana Basin
- San Diego Formation

The groundwater quality of these basins is predominantly brackish. Improved technologies provide consideration of affordable water sources, such as brackish groundwater, that were not available a few decades ago. Groundwater is a viable alternative and is part of the City's planning efforts. Local water supply projects, particularly groundwater exploration, benefit City rate payers, offer drought protection and are locally controlled.

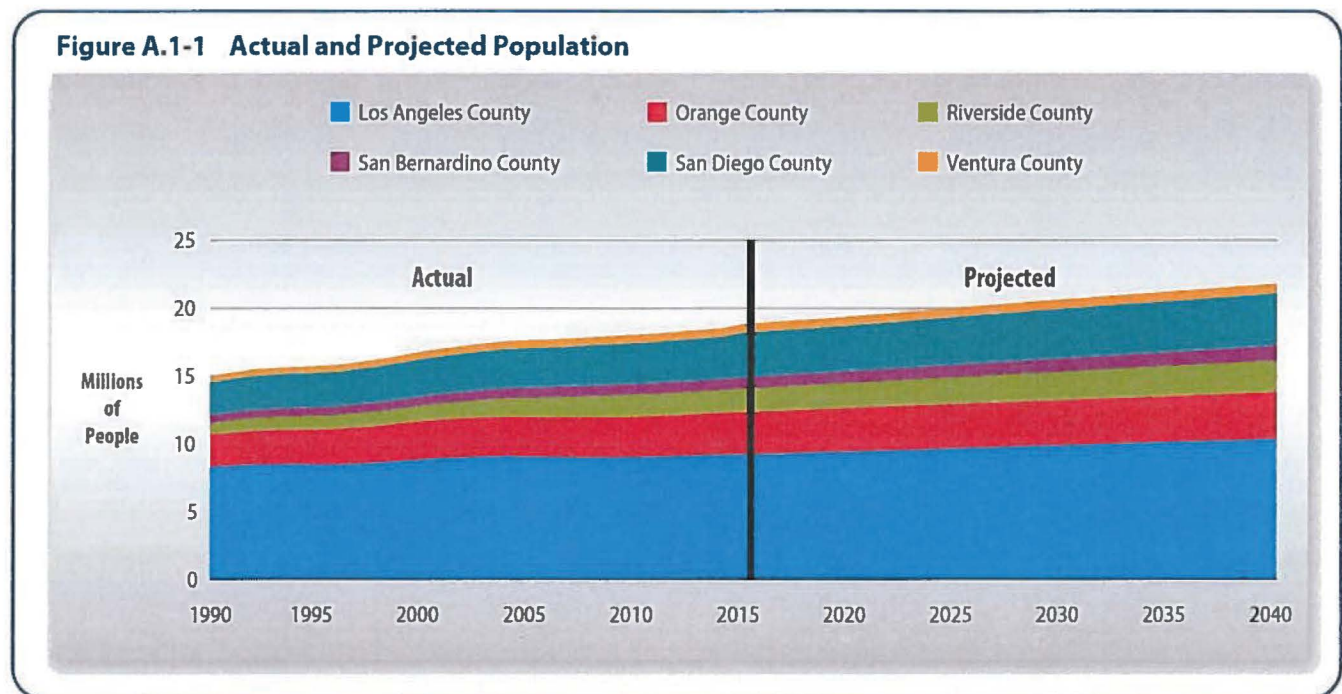
**Concern: Rising Water Cost due to Heightened Competition for Limited Water Supplies**

**Severity: HIGH**



The cost of imported water is rising; SDCWA Untreated Supply Rate has jumped from \$599/AF in 2010 to \$885/AF in 2016 (an increase of 48%) and an increase in fixed charges from \$41.1 million in 2010 to \$75.2 million in 2016 (an 83% increase). It is anticipated that the cost of imported water will continue to rise drastically as the demand continues to rise due to the expected population increase of 25% in San Diego County. The demand on imported water is impacted by population growth throughout Southern California, Arizona and Nevada. A 16% increase in population in Southern California is anticipated, as described in Figure 3-3, an excerpt from the Metropolitan Water District of Southern California Regional Urban Water Management Plan dated June 2016.

**Figure 3-3: Actual and Projected Population in Metropolitan Water District of Southern California's Service Area**



**Concern:** Vulnerability to Climate Change and Natural Disasters

**Severity:** HIGH

Continued drought within San Diego and the western United States threatens imported water supplies. If the drought continues, water available from the State Water Project and the Colorado River Basin will be less reliable. Governor Brown's Executive Order B-29-15 for mandatory water use restrictions required a 16% reduction for the City of San Diego in 2015. Although the Board has taken action to make some of the requirements of the regulation permanent, in June of 2016 the SDCWA was able to demonstrate to the SWRCB that it and its member agencies have sufficient water supplies to meet demands even during three additional dry years and won't be subject to state-mandated water-use reductions through January 2017. However, the City is not seeing a "snap back" in usage by its customers as many have made permanent changes to their landscapes, specifically removing turf.

The City's 2012 Long-Range Water Resources Plan (LRWRP) identified Climate Change Impacts to Water Supplies and Demands in which a 10,000 to 50,000 AFY shortfall in water supply in 2035 was identified as having a probability of 20% in an un-mitigated situation, as shown in Figure 3-4, below.

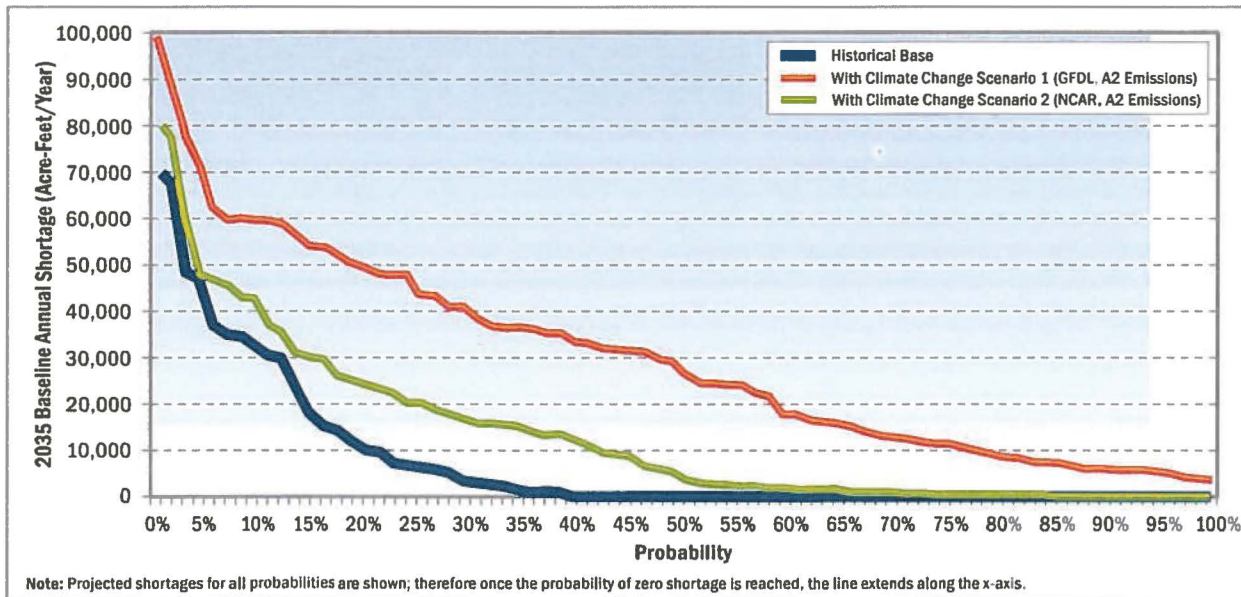




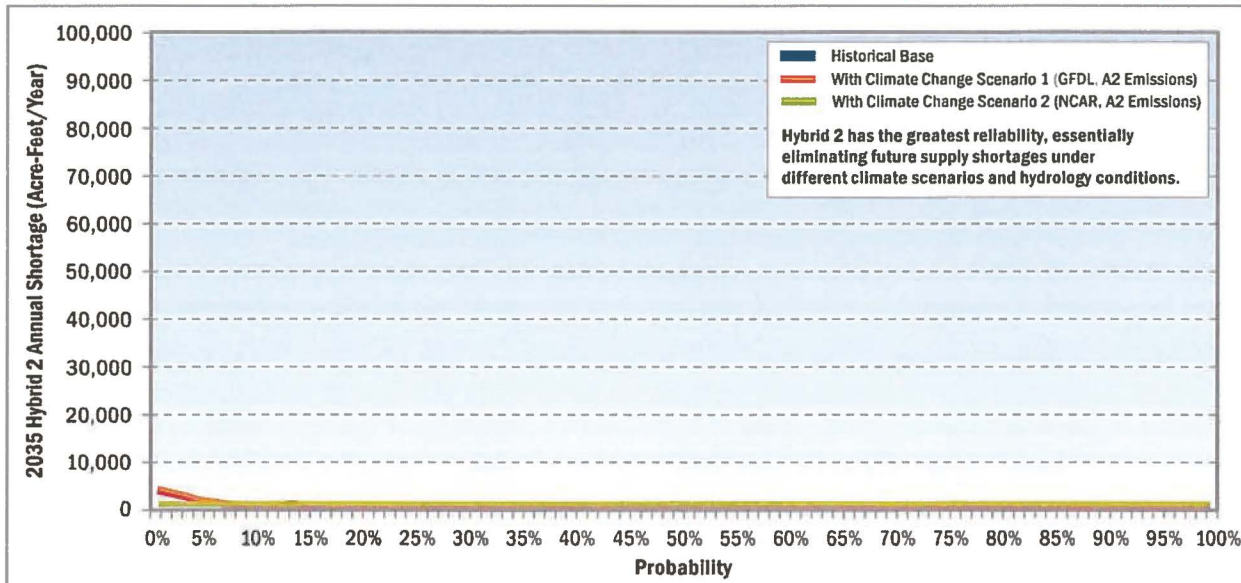
The LRWRP identified a Hybrid 2 approach to mitigate the risk. Hybrid 2 includes 93,000 AFY of Indirect potable reuse (The Pure Water Program) as its primary source of water supply with an additional 37,300 AFY coming from conservation and groundwater extraction. The Hybrid 2 approach reduces the shortfall in water supply to 0 AFY with a probability of 20%, as shown in Figure 3-5, below.

In addition, imported water pipelines are adjacent to and cross the San Andreas and San Jacinto Faults. A sizeable earthquake along the San Andreas Fault has the potential to sever portions of the supply system from both the State Water Project and the Colorado River, thereby disrupting San Diego's entire imported water supply.

**Figure 3-4: LRWRP 2035 Climate Change Baseline**



**Figure 3-5: LRWRP 2035 Climate Change Hybrid 2 (Including Pure Water Program)**







## The North City Project Helps Address Concerns

The water produced by the North City Project will be locally produced and controlled, making it a drought proof supply, as the North City Project Phase 1 & 2 will produce 33,600 AFY of purified water by 2025 reducing the need for imported water by 14%. An additional reduction of 36% by 2035 will be achieved through the full implementation of the Pure Water Program. The North City Project will make San Diego's water portfolio be more resilient in the face of climate change and natural disasters.

Diversification of the City's water supply will help make the San Diego region more resistant to drought and imported water delivery service interruptions. As the population continues to grow in San Diego and Southern California, described above in Figure 3-3, water supplies continue to dwindle due to statewide droughts; San Diego aims to ease the burden on imported water sources by diversifying its water supply portfolio through the production of purified water.

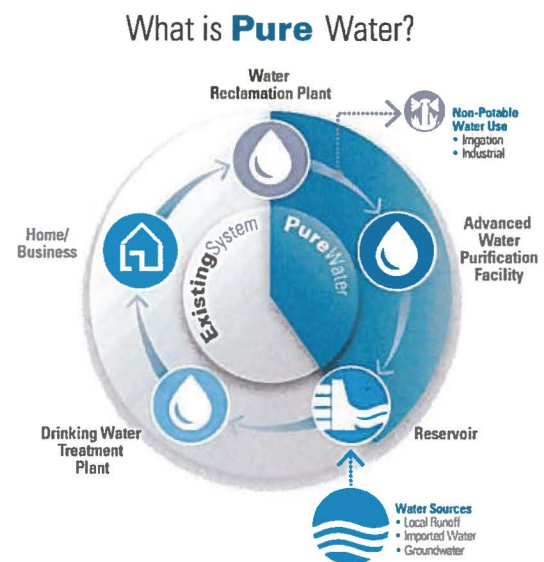
The North City Project will utilize existing reservoirs to store the purified water. Large underground aquifers are not available in San Diego County. The affects of this new local water supply on the regional reservoir system are being analyzed in the San Diego Basin Infrastructure Study. The San Diego Basin Infrastructure Study, which is being carried out by the City and the Bureau of Reclamation, will develop structural and non-structural options within the San Diego region that can serve as adaptation strategies to manage climate change impacts, focusing on optimizing the reservoir systems and furthering the development of new water supply sources such as Pure Water. The City has also evaluated similar effects on regional wastewater infrastructure, and the potential savings are significant because the Project consists of upstream scalping facilities that reduce the load on downstream wastewater facilities.

## ***2. Will water made available by this Title XVI Project continue to be available during periods of drought? To what extent is the water made available by this Title XVI Project more drought resistant than alternative water supply options? Explain.***

### Response:

Yes, the purified water produced by this Project is drought proof.

- The reason it is drought proof is because it is not dependent upon local runoff or groundwater as the water source. The source for the purified water is recycled water; it is wastewater that has been reclaimed through water reclamation plants, re-using existing water supplies. The existing North City Water Reclamation Plant operates year-round. There is adequate supply in the wastewater system to operate at the projected flows with the proposed diversion pump stations and achieve the Project's production goal of 30 mgd by 2025. In order to achieve this production rate, 52 mgd of wastewater is needed; the lowest minimum monthly Daily Average Influent Flow measured at PLWWTP was 142.5 mgd. This demonstrates that even without population growth which would generate higher wastewater flows, Project production goals will be met.

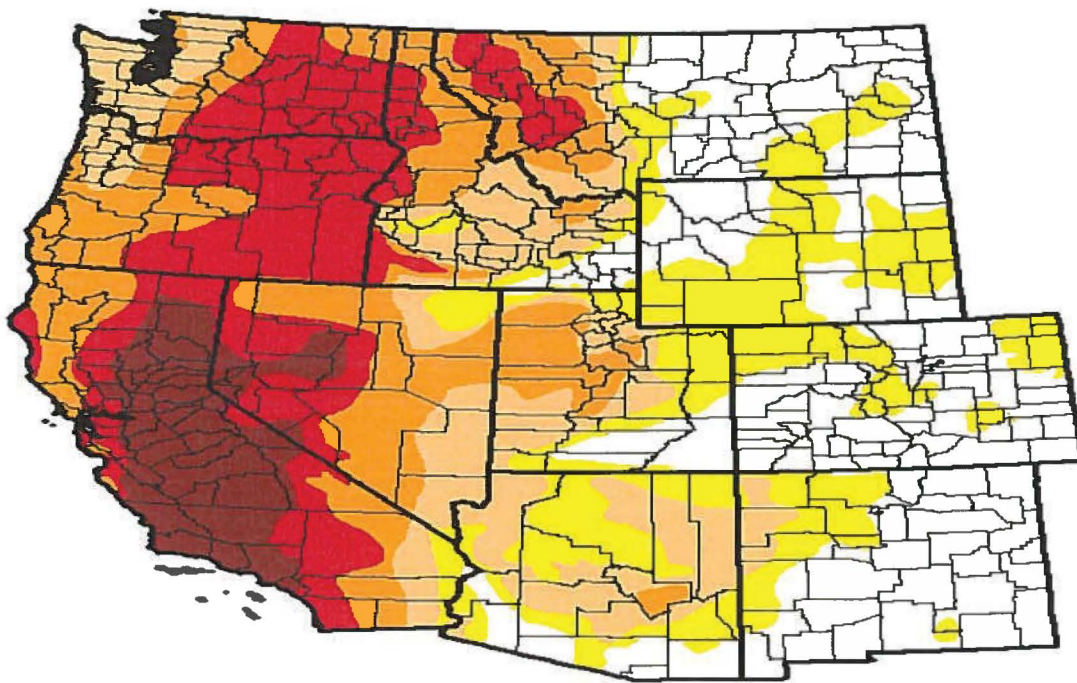




The water made available by this Project is more drought resistant than alternative water supply options. Both imported water supplies, the Bay-Delta and the Colorado River are subject to the weather, and subsequently drought conditions. The US Drought Monitor reports the majority of California as having 'Exceptional Drought' conditions as seen in Figure 3-6.

Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	



## Evaluation Criterion 2: Environment and Water Quality (12 Points)

**1. Will the Title XVI Project improve the quality of surface or groundwater? Will the project improve effluent quality beyond levels necessary to meet State or Federal discharge requirements?**

Response:

Improved Quality of Surface Water

Yes, through the addition of the purified water, the North City Project will improve the water quality of surface water reservoirs. This purified water will improve nutrient-related water quality within these reservoirs as water produced at the NCAWPF is of distilled water quality and meets or exceeds all state and Federal drinking water standards. As the purified water becomes an established portion of the City's water supply, 30 mgd of Pure Water will mix with





imported water providing dilution of incoming water compared to current conditions. Nutrient concentrations will be reduced as well as salinity concentrations. Improvements in salinity will reduce costs associated with drinking water treatment, infrastructure replacement, and ratepayer appliance maintenance (e.g., water heaters, fixtures).

### Meeting State/Federal Discharge Requirements

The Project will also improve effluent quality to the ocean by offloading the City's 240-mgd PLWWTP and reducing ocean discharges. The City is the last major municipality in the United States to operate a wastewater treatment plant with chemically enhanced primary treatment. The Federal Clean Water Act requires all wastewater treatment plants treat to the secondary treatment level. However, the City submitted its application for renewal of the waiver its discharge of wastewater into the Pacific Ocean via the Point Loma Ocean Outfall in January 2015. Approval of the City's renewal application was issued by the United States Environmental Protection Agency (EPA) in August 2017. The PLWWTP continues to operate under the provisions of the modified permit in full compliance with the Clean Water Act section 301 (h) as modified by the Ocean Pollution Reduction Act.

Upgrading the plant to current federal standards, secondary treatment, would have a total cost of \$2.1 billion and would produce no new water. Investing in the North City Project and seeking federal legislation to allow San Diego to meet modified secondary standards would eliminate the need for the costly upgrades to PLWWTP while providing a needed new water supply. The North City Project would divert 30 mgd, or approximately 18%, of wastewater flows to PLWWTP and full Program implementation will divert 83 mgd or approximately 50%. By diverting these wastewater flows, PLWWTP can continue to meet TSS Mass Emission Permit limits of 13,598 metric tons per year—the equivalent of upgrading the plant to secondary treatment.

## ***2. Will the Title XVI Project improve flow conditions in a natural stream channel? Will the project restore or enhance habitat for non-listed species? If so, how?***

### Response:

The North City Project will indirectly enhance areas in the Bay-Delta and Colorado River, thus resulting in improved habitat for non-listed and listed threatened or endangered species of these regions. As previously presented in Table 3-4 and shown for reference below. The North City Project and the Pure Water Program will reduce the need to import water from the Bay-Delta and Colorado River as shown:

Program Phase	Accelerated Project Delivery Goals	Location	Reduction Imported Water Bay-Delta (AFY)	Reduction in Imported Water Colorado River (AFY)	Total Reduction Imported Water (AFY)
1	30 mgd (33,600 AFY) (by 2025)	North City	8,736 (14%)	19,488 (14%)	28,224 (14%)
2					
3	83 mgd (93,000 AFY) (by 2035)	Central Area South Bay	24,180 (36%)	53,940 (36%)	78,120 (36%)



### Bay-Delta:

The Bay-Delta encompasses 1,600 square miles and supports an assortment of tidal and non-tidal aquatic, riparian, and wetland habitats that host more than 500 species. Suisun Bay lies at the confluence of the Sacramento and San Joaquin Rivers, forming the entrance to the Bay-Delta. Its tidal marsh is the largest brackish water marsh complex in the western U.S. and supports many sensitive terrestrial and aquatic species, including the Delta Smelt. The Suisun Bay tidal marsh is managed as a critical spawning and rearing habitat for fish, as well as seasonal wetlands for water fowl. In addition, the Suisun Marsh is home to the only two known occurrences of the Suisun thistle, *Cirsium hydrophilum* var. *hydrophilum*, a variety of thistle which is a federally listed endangered species.

The Bay-Delta Conservation Plan has identified numerous species of concern within the Bay-Delta including 52 plant varieties, 12 different mammals, 7 types of fish, 10 bird species, 3 amphibians, 17 invertebrates and 3 reptiles. A full list of species of concern can be found at <http://calwater.ca.gov/delta/species/>

The construction of dams and reservoirs has dampened the variation that was present in the historical hydrograph of the Delta and has changed the timing of flows through the Delta. Upstream diversions reduce flows into the Delta and in-Delta diversions, including State Water Project (SWP) and Central Valley Project (CVP) facilities and over 2,200 non-project diversions, have reduced flow out of the Delta. Operations of the SWP/CVP facilities (including the Delta Cross Channel, Victoria Canal, and the pumping stations) have altered in-Delta hydrodynamics by altering the direction of water flow such that east to west flows are lower than they were historically, and north to south flows are greater than they were historically. In this highly altered environment, several fish species have declined to the lowest population numbers in their recorded histories. To address this decline in fish population, federal regulators have placed limits on Delta water deliveries. While environmental restrictions on water deliveries are meant to protect Delta fish species, they also reduce the operational flexibility of the SWP and CVP needed to meet statewide water supply needs (Bay-Delta Conservation Plan). A reduction in demand for this water by the City could lessen this negative impact.

### Lower Colorado River:

The mighty Colorado River originates in the Rocky Mountains and flows more than 1,400 miles through the American southwest and the Republic of Mexico. The Colorado River Basin extends over nearly a quarter of a million square miles in seven states providing water for more than 25 million people and 3.5 million acres of agricultural land.

The Yuma clapper rail, a species native to the lower Colorado River, was listed as endangered in 1967 under the precursor to the Federal Endangered Species Act. In 1980, the native bonytail fish species was listed as endangered under the Endangered Species Act (ESA), and in 1991, the razorback sucker, another of the lower Colorado River's native fish species, was listed as endangered. In 1994, areas of the lower Colorado River were designated as critical habitat for these two endangered fish species. In 1995, the southwestern willow flycatcher was federally listed as endangered. The U.S. Fish and Wildlife Service proposed critical habitat for the southwestern willow flycatcher in October of 2004. With the listing of several species as endangered along the lower Colorado River, and with the prospect of more species becoming listed in the future, there was a clear need for a long-term program that would balance the interests of water users with conservation of endangered species. The Lower Colorado River Multi-Species Conservation Program (LCRMSCP) Habitat Conservation Plan describes





general and species-specific conservation measures for 26 covered species and five evaluation species. The Program works toward the recovery of listed species through habitat and species conservation (LCRMSCP, 2004).

To ensure the continued existence of covered species within the planning area and to allow for future increases in their abundance, it is important that existing habitat areas are maintained through the life of the program to prevent future degradation or loss of habitat. A reduction in the amount of water needed from the Colorado River will help prevent loss of habitat for the species (LCRMSCP, 2004). The proposed North City Project will reduce the volume of Colorado River water diverted to San Diego and decrease these impacts.

**3. Will the Title XVI Project provide water or habitat for federally listed threatened or endangered species? If so, how?**

Response:

Bay-Delta:

As discussed in Table 3-4, the North City Project will reduce the volume of water imported from the Bay-Delta by 8,736 AFY by 2025, thereby reducing impacts on the Bay-Delta. Table 3-7 describes the Federal Listed Species in the Bay-Delta:

**Table 3-7: Federal Listed Species in the Bay-Delta**

Endangered Species	Threatened Species
Chinook salmon, Sacramento River winter-run San Joaquin kit fox Riparian wood rat Salt marsh harvest mouse Riparian brush rabbit Least Bell's vireo California clapper rail Vernal pool tadpole shrimp Conservancy fairy shrimp Suisan thistle Soft bird's-beak	Chinook salmon, Central Valley spring-run Delta smelt Green sturgeon, Southern Western yellow-billed cuckoo Giant garter snake California red-legged frog California tiger salamander Central Valley Valley elderberry longhorn beetle Vernal pool fairy shrimp

Lower Colorado River:

As discussed in Table 3-4, the North City Project will reduce the volume of water imported from the Lower Colorado River by 19,488 AFY by 2025, thereby reducing impacts on the Lower Colorado River. Table 3-8 describes the Federal Listed Species in the Lower Colorado River:

**Table 3-8: Federal Listed Species in the Lower Colorado River**

Endangered Species	Threatened Species
Yuma clapper rail Southwestern willow flycatcher Bonytail Humpback chub Razorback sucker	Desert tortoise

**4. Will the Title XVI Project reduce threats to native fish or wildlife, their habitat, or water supply reliability, caused by invasive species? If so, how?**

Response:

Not applicable

### Evaluation Criterion 3: Economic Benefit (35 Points)

#### **Subcriterion No. 3a—Cost Effectiveness (10 points)**

**1. Reclamation will calculate the cost per acre-foot of the water produced by the Title XVI Project using information provided by project sponsors. Please provide the following information for this calculation:**

**a) Total estimated construction costs, by year, for the Title XVI Project (include all previous and planned work):**

Response:

**Table 3-9: North City Project Construction Costs per Year**

Fiscal Year July 1 <sup>st</sup> – June 30 <sup>th</sup>	Construction Cost
2015	\$0
2016	\$0
2017	\$0
2018	\$0
2019	\$4,630,995
2020	\$18,166,809
2021	\$138,871,081
2022	\$298,993,971
2023	\$294,532,948





2024	\$158,135,313
2025	\$56,436,272

***b) The total estimated or actual costs to plan and design the Title XVI Project. This should not include the cost to complete a feasibility study.***

**Response:**

The estimated cost to plan and design the North City project is approximately \$136 million.

***c) The average annual operation and maintenance costs for the life of the Title XVI Project***

**Response:**

The Project's annual operation and maintenance costs are estimated at \$78 million.

***d) The year the Title XVI Project will begin to deliver recycled drinking water***

**Response:**

Calendar Year 2025

***e) The projected life (in years) that the Title XVI Project is expected to last***

**Response:**

50 years

***f) All estimated replacement costs by year:***

**Response:**

The Project's Replacement by year are not known at this time but will be determined as part of the completion of the components 100% Design Reports. Table 3-10 below provides the known estimated replacement costs by year for the North City Project.

**Table 3-10: Replacement Requirements**

Description of Replacement Requirement	Year	Cost
Planning	2015	0
Planning/Design	2016	0
Planning/Design	2017	0
Planning/Design	2018	0
Planning/Design/Construction	2019	0
Planning/Design/Construction	2020	0
Planning/Design/Construction	2021	0
Planning/Design/Construction	2022	0
Planning/Design/Construction	2023	0



Planning/Design/Construction	2024	TBD
Planning/Design/Construction	2025-2035	TBD

***g) The maximum volume of water (in acre-feet) that will be produced upon completion of the Title XVI Project***

**Response:**

The North City Project will produce 30 mgd (33,600 AFY) by 2025.

***2. Reclamation will calculate the cost per acre-foot for the Title XVI Project using the information requested in question No. 1 and compare it to the non-reclaimed water alternative and any other water supply options identified by the applicant to evaluate the cost effectiveness of the Project. Please provide the following information for this comparison:***

***(a) A description of the conditions that exist in the area and projection of the future with, and without, the Project.***

**Response:**

The City's untreated imported water supplies from the SDCWA cost \$1,191/AF in 2015 and are projected to continue to rise between 5.5% annually through 2020, for an anticipated cost of \$1,580/AF. Current projections of the cost for potable reuse are in the \$2,000/AF range.

***(b) Provide the cost per acre-foot of other water supply alternatives that could be implemented by the non-Federal project sponsor in lieu of the Project, this must include but is not limited to, one water alternative that would satisfy the same demand as the Project. Other water supply alternatives are not required but maybe provided where available to demonstrate the cost effectiveness of the Title XVI project.***

**Response:**

The Equinox Center in partnership with the Fermanian Business and Economic Institute prepared a report titled, San Diego County's Water Sources: Assessing the Options, July 2010 (Options Report). In the Options Report an analysis of marginal costs per acre foot of water produced was performed and documented in Table 1b, shown as Figure 3-11 below

**Figure 3-11: Options Report: 2020 Marginal Cost Forecast San Diego County's Water Alternatives**

Marginal Cost (\$/AF)	Imported	Surface Water	Ground water	Desalinated	Recycled Non-potable	Recycled Potable	Conservation
Low	1,479	600	530	3,391	2,861	1,929	336
High	2,079	1,200	1,600	4,391	3,661	2,729	1,136





***(c) If available, provide the cost per acre foot of one water supply project with similar characteristics of the Project. This information does not have to be provided if not available. It is intended to provide another possible comparison to demonstrate the cost effectiveness of the Title XVI Project.***

**Response:**

As shown in Figure 3-1, the anticipated cost of Pure Water Program is in-line with the Options Report and is more expensive than imported water but less expensive than Desalinated.

***(d) Discussion of the degree to which the Project is cost-effective. Including, where applicable, a discussion of why the Project may be cost effective even if the overall Project cost appears to be high.***

**Response:**

Eighty-five to ninety percent of the City's water is imported from the Colorado River and California State Water Project. The cost of this imported water is rising, having almost tripled in the last 10 years. This dependence on imported water and a lack of local control over its cost makes San Diego's water supply vulnerable to water shortages, droughts, climate change and natural disasters. The Pure Water Program will help solve San Diego's water challenges by enhancing the City's water supply.

***Subcriterion No. 3b—Economic Analysis and Project Benefits (25 points)***

***1. Summarize the economic analysis performed for the Project including information on the Project's estimated benefits and costs. Describe the methodologies used for the analysis that has been conducted. Points will be awarded based on a comparison of the benefits and costs of the Project. The information provided should include:***

***(a) Quantified and monetized Project costs, including capital costs and operations and maintenance costs.***

**Response:**

The Recycled Water Study (Study) identified opportunities to increase recycling and reclamation of wastewater for potable and non-potable uses. The study examined potential costs of implementing such opportunities, and to what extent such recycling and reclamation could feasibly offload wastewater flows to the Point Loma Wastewater Treatment Plant (PLWWTP). Additional goals included identification and evaluation of recycling alternatives that would result in maximizing recycling of the City's wastewater to the fullest extent practicable, and evaluating opportunities to increase recycled water reuse at satellite facilities or a regional recycled water agency using wastewater generated by the Participating Agencies of the Metro Joint Powers Authority (Metro JPA). The Study compared the costs of imported water, cost of recycled water (pure water) and the avoided cost of secondary treatment upgrades at the Point Loma Wastewater Treatment. The Study determined that implementing a pure water program will benefit both the water & wastewater taxpayers. The study showed that in the future the cost of imported potable water will exceed that of the Pure Water. Additionally, the study showed that implementing the



pure water program will ultimately reduce the discharge of advanced primary treated wastewater to the ocean and will minimize any upgrade cost associated with the Point Loma Wastewater Treatment Plant. Other secondary benefits that would result from the implementation of Pure Water are:

- Smaller Point Loma Plant facilities (less flow is treated at the Point Loma Plant)
- Less pumping at Pump Station no. 2 (less flow is diverted to the Point Loma Plant)

***(b) Quantified and monetized Project benefits. This includes benefits that can be quantified and expressed as a monetized benefit per acre-foot.***

Response:

Costs in the Study were presented in four thresholds to provide a breakout for different conditions. The following summarizes these thresholds:

**Gross Costs.** Gross costs include the capital and O&M costs for completing and operating the recycled water projects. The Gross Cost evaluation included a sensitivity analysis with a Favorable and Unfavorable scenario (see related question/answer below). The final Gross Costs include an average of these scenarios based on discussion and agreement with the Study's stakeholder group.

• **Tier 1 Net Costs – Direct Wastewater System Savings (Point Loma Related Savings).** Since the reuse projects offload flows going to Point Loma, there are savings that should be credited. These savings include:

- Smaller Point Loma Plant secondary facilities (less flow is treated at Point Loma)
- Smaller wet weather equalization basin (less flow reaches Point Loma)
- Less pumping at Pump Station No. 2 (less flow is diverted to Point Loma)
- Less pumping at Pump Station No. 1 (more reuse occurs at the South Bay Plant since more flow is diverted away from PS1)

• **Tier 2 Net Costs - Salt Credit Benefit.** This credit is \$100/AF and accounts for significant salinity reductions in the water, wastewater and reuse systems caused by the advanced purification elements of the reuse projects. This directly benefits municipal water and wastewater systems. There is an additional homeowner and business benefit which is not included in this value. An implementation step is included to discuss how this benefit is credited.

• **Tier 3 Net Costs - Indirect Wastewater Savings (Maintaining CEPT).** Completing these reuse project will significantly reduce Point Loma discharges. Conceptually, this reduction may be sufficient to meet mass emission targets and maintain the Point Loma Plant as a Chemically Enhanced Primary Treatment (CEPT) Facility. While this study does not establish an opinion on whether this approach should be taken, it does quantify the savings that





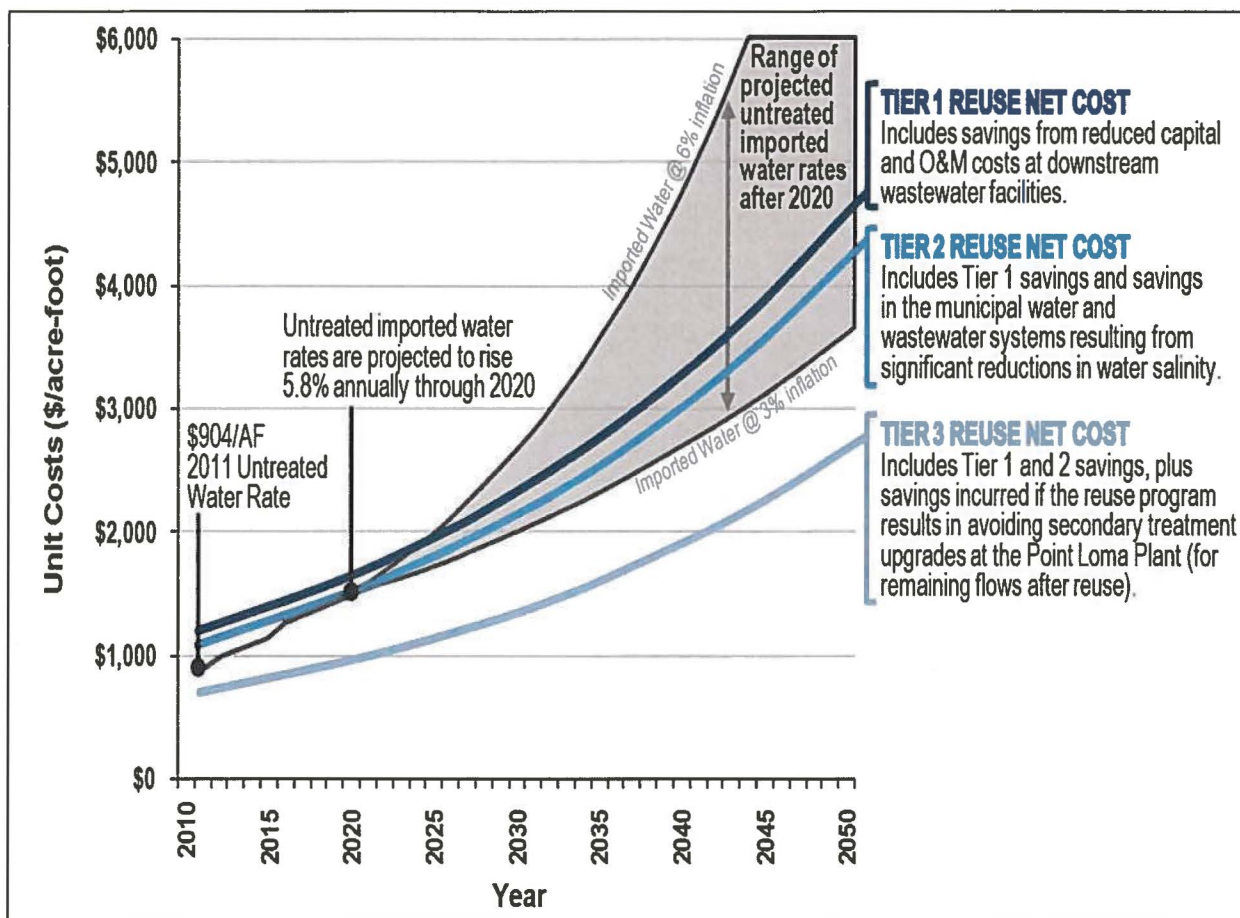
occurs if this reuse program allows maintaining CEPT status at Point Loma. The breakout of this specific threshold is particularly important since there appears to be differing opinions on this issue between the Study's stakeholders. Please see Fig. 3-12.

**(c) A comparison of the Project's quantified and monetized benefits and costs.**

Response:

Figure 3-12 below provides the projected potable water cost compared to recycled water and it shows that the cost of potable water may be much higher than that of recycled water in the near future. Also, it shows that when the avoided Point Loma upgrades cost are included in the analysis, the cost of recycled water will be more cost effective than that of potable water.

**Figure 3-12: Recycled Water Study Comparison of Reuse Alternatives Net Cost to Imported Untreated Water**





**2. Some Title XVI project benefits may be difficult to quantify and/or monetize. Describe any economic benefits of the project that are difficult to quantify and/or monetize. Provide a qualitative discussion of the economic impact of these benefits. Points will be awarded based on the potential economic impact of the project-related benefits.**

**Response:**

The Project benefits not only the City, but benefits the San Diego region as a whole. As noted in Evaluation Criterion 1, Subcriterion 2a, the benefits of this Project are twofold, deferring and/or eliminating the secondary upgrade to the PLWWTP while creating a new local, sustainable water supply for the region. Creating a sustainable water supply is fundamental to the health of the local economy by not depending on outside influences on future water supplies.

The Project will also enhance the growth of local and small businesses through the use of the City's Equal Opportunity Contracting Program (EOCP) which promotes success through education and an unwavering focus on the true value of equality. Part of the EOCP initiative includes the use of emerging/small local business enterprises (E/SLBE) on design and construction contracts.

- Construction Contract Opportunities over \$1 million have mandatory requirement to use E/SLBE sub-contractors and recognize the E/SLBE as prime if they perform at least 51% of the work with their own forces
- All A/E and Non A/E contracts over \$50,000 have a 20% E/SLBE voluntary participation goal in the RFP, which provides points for meeting or exceeding the E/SLBE Requirements

As a result of the Project, an estimated \$28.9 million will be put back into the community in the form of E/SLBE contracts in the design phase of the North City Projects alone. The Pure Water Program is also beginning an initiative to increase the number of certified E/SLBEs that can work on the Pure Water Program through pro-active outreach.

## **Evaluation Criterion 4: Department of Interior Priorities (10 Points)**

***Points will be awarded based on the extent that the proposal demonstrates that the Project supports Department and Reclamation priorities. Please address those priorities that are applicable to your Project. You may address only the parts of a priority that are applicable. It is not necessary to address priorities, or parts of priorities, that are not applicable to your Project. A Project will not necessarily receive more points simply because multiple priorities are addressed. The points available under this criterion will not be divided among the priorities, and projects will not be penalized if some of the priorities are not applicable. Points will be allocated based on the degree to which the Project supports one or more of the Priorities listed, and whether the connection to the priority(ies) is well supported in the proposal.***

***Creating a conservation stewardship legacy second only to Teddy Roosevelt***





***a. Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment***

**Response:**

Pure Water has gained acclaim as one of the most significant, effective water reuse programs today. The Program and its leadership have been recipients of more than 10 state, national and global awards. The creativity and transferability of Pure Water will help potable reuse gain momentum within California and across the nation. Potable reuse is significant in areas where there is a shortage of water supply, as it does not rely on new water sources or deplete existing water supplies. Potable reuse 'recycles' wastewater by treating it through an advanced water purification process, resulting in the production of purified water. This helps protect the public from future drought or other natural disasters, such as earthquakes.

As the first potable reuse reservoir augmentation project in California, San Diego is laying the groundwork that will allow for the expansion of potable reuse by jurisdictions throughout California. The City's combined use of cutting-edge technologies for the Pure Water Facility (ozonation, biological activated carbon filters, membrane filtration, reverse osmosis, ultraviolet disinfection) has been actively researched through the North City Demonstration Pure Water Facility and verified to produce a safe, reliable raw water source. This offers a new treatment process that, once permitted by DDW, other municipalities in California can seek to replicate. Because of our proven treatment process and close collaboration with regulators and industry experts, the City is playing a key role in shaping California's regulatory framework for potable reuse, including treatment and storage requirements, regulations to which all state potable reuse programs will be held. In fact, the Pure Water's Independent Advisory Panel acknowledged the impact that the City's research will have for other jurisdictions:

The Miramar Reservoir modeling effort continues to be excellent work. Beyond its importance to the City of San Diego, the findings from the modeling effort are significant as they help to inform others on how future reservoir studies should be conducted. The engineering-related work undertaken ... is exemplary and will provide valuable information for both the City and others in the industry interested in potable reuse. - Excerpts from the Limnology Subcommittee Findings and Recommendations Based on an Independent Advisory Panel Meeting held September 30, 2016.

**Evaluation Criterion 5: Reclamation's Obligations and Benefits to Rural or Economically Disadvantaged Communities (8 points)**

**Subcriterion No. 5a. Legal and Contractual Water Supply Obligations (4 Points)**

***1. Explain how the Project relates to Reclamation's mission and/or serves a Federal interest. Does the Title XVI Project help fulfill any of Reclamation's legal or contractual obligations such as providing water for tribes, water right settlements, river restoration, minimum flows, legal court orders, or other obligations? Explain.***

**Response:**

The Project will not directly fulfill Reclamation's legal or contractual obligations. However, it will reduce demand for imported water on an acre-foot basis, including water from the Colorado River. This could potentially result in



additional Colorado River supplies in the River which may be used by Reclamation to help fulfill legal or contractual obligations.

## **Subcriterion No. 5b. Benefits to Rural or Economically Disadvantaged Communities (4 Points)**

***1. Does the Title XVI Project serve a rural or economically disadvantaged community? If so, please provide supporting information. (A rural community is defined as a community with fewer than 50,000 people.)***

### Response:

The Pure Water Program will provide water throughout the city to both economically disadvantaged and non-economically disadvantaged communities. The City of San Diego is comprised of several smaller communities of which some are economically disadvantaged based on Appendix H of SANDAG's 2050 Regional Transportation Plan, adopted October 2011. The disadvantaged communities are described below in response to No. 6b2. The project does not serve a rural community.

***2. Are any rural or economically disadvantaged communities within the Title XVI Project sponsor's service area? If so, provide supporting information.***

### Response:

The following communities within the San Diego service area are defined as economically disadvantaged per SANDAG's Regional Plan.

**Barrio Logan:** 74% of the population in this neighborhood is Hispanic, 15% White, 6.4% African American, 2.5% Asian and Pacific Islander, and the remainder other races. 76.2% of the residents live in poverty with an unemployment rate of 24.5%. Almost 44% of the adult population did not graduate from high school and 31.5% of the residents do not speak English well.

**City Heights:** 59% of the population in this neighborhood is Hispanic, 16.8% Asian and Pacific Islander, 11% African American, 10.4% White, and the remainder other races. Almost 65% of the residents live in poverty with an unemployment rate of 13%. Almost 36% of the residents do not speak English well.

**Encanto:** 53% of the population in this neighborhood is Hispanic while 20.5% are African American, followed by almost 17% Asian and Pacific Islander and 6.6% are White. Almost 53% live in poverty with a 14% unemployment rate. 32% of the adults did not finish high school and 14% do not speak English.

**Linda Vista:** 37% of the population in this neighborhood is White while 33% are Hispanic and 20.5% are Asian and Pacific Islander. 5% are African American and the remainder of other races. 41% live in poverty while unemployment is 12.5%. Almost 18% of the adult population did not finish high school and 11.4% of households are isolated linguistically.

**San Ysidro:** Almost 94% of the population in this neighborhood (directly on the border with Mexico) is Hispanic. The remainder of the population is 2.4% White, 2.2% Asian and Pacific Islander, and 0.9% African American or





other race. Almost 60% of the residents live in poverty with an unemployment rate of 16.3%. 44% of those over 25 do not have a high school diploma and 22.4% of households are isolated linguistically.

**Skyline Paradise Hills:** 38% percent of the population in this neighborhood is Hispanic, while 32% are Asian or Pacific Islanders. Almost 14% of the population is African American while only 11% are White. The remainder is other races. 36% live in poverty with an unemployment rate of 13.5%. 9% of households are isolated linguistically and 18.5% of residents 25 and older did not finish high school.

**Southeastern San Diego:** 84% of the population in this neighborhood is Hispanic, while almost 8% are African American. Only 3.5% are White and 2.4% Asian or Pacific Islander with the remainder of other races. 70% of the population lives in poverty while unemployment is almost 17% percent. 50% of the population 25 and older did not finish high school and almost 2% of households are linguistically isolated.

## Evaluation Criterion 6: Watershed Perspective (10 Points)

### ***1. Does the Title XVI Project implement a regional or State water plan or an integrated resource management plan? Explain.***

#### Response:

The Project incorporates a regional approach to providing a solution to the long-standing permit renewal of the Point Loma Plant as noted above. In addition, the Project benefits the region and state as a whole as it provides a safe, reliable, drought proof, locally controlled drinking water supply for the San Diego region while reducing the demand from imported water supplies. This project achieves multiple plan goals of the San Diego Integrated Regional Water Management (IRWM) Plan.

IRWM Plans are regional plans designed to improve collaboration in water resources management. The San Diego IRWM comprehensively addresses all aspects of water management and planning throughout San Diego Region. The San Diego IRWM Plans cross jurisdictional, watershed, and political boundaries; involves multiple agencies, stakeholders, individuals, and groups; and addresses the issues and differing perspectives of all the entities involved through mutually beneficial solutions. The proposed Project will address the following San Diego IRWM Plan Goals: improve the reliability and sustainability of regional water supplies, protect and enhance water quality and promote and support sustainable integrated water resource management. In addition, as noted in Evaluation Criterion 1, Subcriterion 1a., question 2, the San Diego County Water Authority in its 2013 Regional Water Facilities Master Plan Update notes that these projects have the ability to significantly delay or forgo future Water Authority investments in new infrastructure and any decision on new regional supply development projects should take into consideration the City's potable reuse efforts.

### ***2. Does the Title XVI Project help meet the water supply needs of a large geographic area, region, or watershed? Explain?***

#### Response:

The City of San Diego Public Utilities Department serves more than 1.3 million people populating more than 200 square miles of developed land. In addition, a 23% increase in population from 2015 to 2040 is anticipated, as documented in Table 3-1 of the City of San Diego's 2015 Urban Water Management Plan (UWMP). The UWMP is



closely aligned with a 25% increase in population for the County of San Diego as described in SANDAG's 2050 Regional Growth Forecast.

**3. Does the Title XVI Project promote collaborative partnerships to address water-related issues? Explain.**

**Response:**

Yes. The San Diego County Water Authority has continually supported the City's efforts to diversify its water portfolio including the Pure Water Program's efforts. The City has also continued to work with its stakeholders, namely the Water Reliability Coalition which includes environmental organizations, the business community, and others, to garner support for the project and its efforts. Supporters include:

List of Supporters	
Asian Business Association BIOCOM Building Industry Association of San Diego County California Restaurant Association, San Diego County chapter City of Imperial Beach Coastal Environmental Rights Foundation* CONNECT Equinox Center Industrial Environmental Association Metro Wastewater Joint Powers Authority	San Diego Audubon Society San Diego Business Leadership Alliance San Diego Coastkeeper* San Diego Regional Chamber of Commerce* San Diego Regional Economic Development Corporation San Diego River Park Foundation Surfrider Foundation, San Diego County chapter WaterReuse Association, San Diego chapter United States Environmental Protection Agency* San Diego County Water Authority Congressman Scott Peters*
*Letters of support provided in Attachment A	

**4. Does the Title XVI Project include public outreach and opportunities for the public to learn about the project? Explain.**

**Response:**

Yes. Regulatory collaboration and cutting-edge technologies alone cannot bring a water reuse program like Pure Water to fruition – stakeholders, including the public and local communities and elected officials, must buy into and support the concept. Only then can a potable reuse program be truly successful. Therefore, educating the public about Pure Water and gaining their support has been a central goal of the Program. To meet this goal, the City implemented a robust outreach program that includes North City Demonstration Pure Water Facility tours, multilingual materials, social media, youth/school partnerships and community events.





The outreach program has achieved measurable success, combatting misconceptions about potable reuse and relaying clear, accurate information about the water purification process. Public opinion polls show from 2004 to 2014, public approval of the Pure Water Concept grew by 47%, resulting in 73% of residents in favor of the concept. In addition, outreach efforts have led to unanimous support from local elected officials and commitment of significant funding towards Pure Water implementation.

Free public tours of the City's North City Demonstration Pure Water Facility have been implemented so the public could learn in person about the water purification process utilized to turn recycled wastewater into safe, clean purified water. Close to 11,000 people have toured the facility to date.

With the initiation of 30% Design, project-specific outreach on several projects has officially begun. As part of this effort, the Pure Water Team held several Open House events in 2016 as well as 2017 to increase awareness of the Pure Water Program and upcoming projects. These events included tours of the Demonstration Facility, tastings of the purified water, a video testimonial booth, an interactive Kid Zone and scavenger hunt, tours of the new North City Waterwise Garden, and a succulent planting station. The North City Demonstration Pure Water Facility hosted a record 20 tours over 5 hours. More than 400 people attended the Pure Water Day Open House event to learn more about the Program and tour the North City Demonstration Pure Water Facility. Project specific outreach will also continue through the construction period.

## Chapter 4 Environmental and Cultural Compliance

The Pure Water San Diego Program is currently in the planning stage of development, North City in the pre-design, procurement and 100% design stage of development. We are applying for funds to support pre-project planning and design work which will not have any impacts to the surrounding environment.

A Program Environmental Impact Report (PEIR) SCH No. 2014111068 for the Pure Water Program was completed and certified by the San Diego City Council in October 2016 for compliance with the California Environmental Quality Act (CEQA). The PEIR outlined potential environmental impacts associated with implementation of all Pure Water Program projects to create 83 million gallons a day of purified water. The City approved the environmentally superior alternative versus the proposed program. A project-level joint CEQA and National Environmental Policy Act (NEPA) document has been prepared for the Pure Water Program's first phase, the North City Project. The North City Project includes a new wastewater pump station and forcemain, brine line, expansion of the existing North City Water Reclamation Plant, a new purified water treatment facility, purified water pump station, pure water pipeline to a local reservoir and associated upgrades and improvements at system facilities. The North City Project will produce 30 MGD of purified water. The Pure Water North City Project Environmental Impact Report/Environmental Impact Statement SCH 2016081016 was certified by San Diego City Council on April 10, 2018. The final EIS was published in the Federal Register by the Bureau of Reclamation on April 27, 2018.

During design, any geotechnical investigation or soil disturbance that may be required will have the appropriate CEQA and NEPA review and approvals completed prior to any disturbance.

***1. Will the proposed project impact the surrounding environment (i.e., soil [dust], air, water [quality and quantity], animal habitat, etc.)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the***



**project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.**

**Response:**

A program level CEQA document has been prepared (PEIR) that outlines potential environmental impacts associated with the Pure Water Program. The PEIR was finalized on August 8, 2016 ([https://www.sandiego.gov/sites/default/files/pure\\_water\\_san\\_diego\\_program\\_final\\_peir-reduced.pdf](https://www.sandiego.gov/sites/default/files/pure_water_san_diego_program_final_peir-reduced.pdf)) and certified by the San Diego City Council on October 25, 2016. Subsequent project-level CEQA and NEPA documents will be prepared that will provide project level impact analysis and be approved by Lead Agencies prior to any construction activities. A project specific CEQA document for the North City Project has been prepared by the City of San Diego and the Bureau of Reclamation (as the lead NEPA agency). The North City Project Environmental Impact Report/Environmental Impact Statement SCH 2016081016 was certified by San Diego City Council in April of 2018. <https://www.sandiego.gov/water/purewater/purewatersd/reports>.

**2. Are you aware of any species listed, or proposed to be listed as a Federal threatened or endangered species, or designated Critical Habitat in the project area? If so, how would they be affected by activities associated with the proposed Project?**

**Response:**

The San Diego region supports a number of listed species and designated Critical Habitat areas. Table 4-1 provides a list of potential listed species and critical habitat found within the North City Project Area. At this time, the Pure Water San Diego Program is currently in the planning and design stage of development. Pre-project planning and design work will not result in construction or impacts to listed species or critical habitat.

**Table 4-1: North City Project – Federally Listed Species and Critical Habitat, Miramar Alternative**

Common Name	Scientific Name	Status
<i>Birds</i>		
California least tern	<i>Sternula antillarum browni</i>	Endangered
coastal California gnatcatcher	<i>Polioptila californica californica</i>	Threatened
least Bell's vireo	<i>Vireo bellii pusillus</i>	Endangered, Critical Habitat
Ridgway's rail	<i>Rallus obsoletus levipes</i>	Endangered
southwestern willowflycatcher	<i>Empidonax trailii extimus</i> (nesting)	Endangered
western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Threatened
<i>Crustaceans</i>		
Riverside fairy shrimp	<i>Streptocephalus woottoni</i>	Endangered, Critical Habitat
San Diego fairy shrimp	<i>Branchinecta sandiegonensis</i>	Endangered, Critical Habitat
<i>Flowering Plants</i>		
California Orcutt grass	<i>Orcuttia californica</i>	Endangered
coastal dunes milk-vetch	<i>Astragalus tener</i> var. <i>titi</i>	Endangered
Del Mar manzanita	<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Endangered
Encinitas baccharis	<i>Baccharis vanessae</i>	Threatened
Nevin's barberry	<i>Berberis nevinii</i>	Endangered
Orcutt's spineflower	<i>Chorizanthe orcuttiana</i>	Endangered
Otay tarplant	<i>Deinandra conjugens</i>	Threatened, Critical Habitat
salt marsh bird's-beak	<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	Endangered
San Diego ambrosia	<i>Ambrosia pumila</i>	Endangered





San Diego button-celery	<i>Eryngium aristulatum</i> var. <i>parishii</i>	Endangered
San Diego mesa mint	<i>Pogogyne abramsii</i>	Endangered
San Diego thorn-mint	<i>Acanthomintha ilicifolia</i>	Threatened
spreading navarretia	<i>Navarretia fossalis</i>	Threatened, Critical Habitat
thread-leaved brodiaea	<i>Brodiaea filifolia</i>	Threatened, Critical Habitat
willow monardella	<i>Monardella viminea</i>	Endangered
<i>Insects</i>		
quino checkerspot	<i>Euphydryas editha quino</i>	Endangered, Critical Habitat
Hermes copper	<i>Hermelycaena [Lycaena] hermes</i>	Candidate
<i>Mammals</i>		
Pacific pocket mouse	<i>Perognathus longimembris pacificus</i>	Endangered
Stephens' kangaroo rat	<i>Dipodomys stephensi</i>	Endangered
<i>Amphibians</i>		
arroyo toad	<i>Anaxyrus californicus</i>	Endangered, Critical Habitat

A program level CEQA document has been prepared (PEIR) that outlines potential environmental impacts associated with the Pure Water Program. The PEIR was finalized on August 8, 2016 ([https://www.sandiego.gov/sites/default/files/pure\\_water\\_san\\_diego\\_program\\_final\\_peir-reduced.pdf](https://www.sandiego.gov/sites/default/files/pure_water_san_diego_program_final_peir-reduced.pdf)) and certified by the San Diego City Council on October 25, 2016. A project-level CEQA and NEPA document was prepared for the North City Project. The Bureau of Reclamation will act as the lead NEPA agency for the North City Project EIR/EIS. The Pure Water North City Project Environmental Impact Report/Environmental Impact Statement SCH 2016081016 was certified by San Diego City Council on April 10, 2018. The final EIS was published in the Federal Register by the Bureau of Reclamation on April 27, 2018. This joint document includes an analysis of project level impacts. A copy of the EPA Record of Decision is provided in Appendix A.

The North City Project EIR/EIS includes appropriate mitigation measures to avoid and minimize impacts to listed species. A consultation with the United States Fish and Wildlife Service was initiated by the Bureau of Reclamation in 2017. The USFWS ESA consultation is ongoing. Prior to any geotechnical investigation or soil disturbance, appropriate CEQA and NEPA review and approvals shall be completed.

**3. Are there wetlands or other surface waters inside the Project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the Project may have.**

**Response:**

There are wetlands and federally regulated Waters of the U.S. that are present in the Program area. The Pure Water San Diego Program is currently in the planning stage of development and impacts to these resources are unquantified. Pre-project planning and design work will not result in physical affects to the environment or impacts to wetlands or jurisdictional waters. During the planning phase no impacts to “waters of the United States” will occur. The North City EIR/EIS is being prepared and will delineate all federally regulated wetlands and waters and will provide project level impact analysis prior to construction activities. Impacts to wetlands and Waters of the U.S. will be minimized to the extent feasible. Trenchless technologies for pipelines that cross wetlands and/or waterways is being incorporated into the design of the pipelines.

The North City Project interfaces with potentially federal regulated Waters of the U.S. in 3 locations: pipelines cross concrete channelized portion of Tecolote Creek, subaqueous pipeline in Miramar Reservoir and the filling of vernal



pool wetlands at the Pure Water Facility Site. The project has been designed to avoid impacts to wetlands and waters of the U.S. to the extent feasible. Prior to construction appropriate permits from wetland regulatory agencies shall be obtained.

**4. When was the water delivery system constructed?**

Response:

The City has owned and operated the Water system since 1901.

**5. Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.**

Response:

This project will have no effect on individual features of an irrigation system.

**6. Are there any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.**

Response:

There are known buildings, structures and features in the vicinity of the project that are listed or eligible for listing on the National Register of Historic Places. The Program is currently in the pre-project planning and design phase. No impacts to resources and no construction will occur during this stage of planning. Technical review of resources within the Area of Potential Effect of the project has been conducted by Dudek, an Environmental and Engineering Consulting firm. A Historical Resources report and Archeological reports were prepared that summarized resources present and outlines avoidance of impacts to resources in the project area. A SHPO consultation has been completed for the North City Project. No direct impacts to listed resources will occur as a result of the North City Project.

**7. Are there any known archeological sites in the proposed project area?**

Response:

There are known archeological sites in the San Diego region. Locations and information on resources present are considered confidential information. The Program is currently in the pre-project planning and design phase. No impacts to potential archeological sites will occur during this stage of planning. A program level CEQA document has been prepared (Program Environmental Impact Report) that outlines potential archeological and tribal cultural resources in the general area of Pure Water Program facilities. At the program level 1,028 archeological resources and 208 isolated finds were recorded to be potentially present within a 1-mile radius of the project areas and potential pipeline alignments. A project-level joint CEQA and National Environmental Policy Act (NEPA) document has been prepared for the Pure Water Program's first phase, the North City Project. The North City Project includes a new wastewater pump station and forcemain, brine line, expansion of the existing North City Water Reclamation Plant, a new purified water treatment facility, purified water pump station, pure water pipeline to a local





reservoir and associated upgrades and improvements at system facilities. Technical review of resources potentially present within the North City Project Area of Potential Effect (APE) has been completed. The technical report concludes 39 resources were recorded to be potentially present within the North City Project APE. The project has been designed to avoid impacts to known resources. No impacts to known resources will occur as a result of the project. During construction, archeological and Native American monitoring shall be required for areas with a moderate or high potential for resources.

***8. Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?***

**Response:**

The Pure Water San Diego Program is currently in the planning stage of development. During the planning phase no impacts to the surrounding environment or populations will occur. The North City Project EIR/EIS document provides project level impact analysis on potential adverse effects on low income or minority populations. The Pure Water North City Project Environmental Impact Report/Environmental Impact Statement SCH 2016081016 was certified by San Diego City Council on April 10, 2018. The final EIS was published in the Federal Register by the Bureau of Reclamation on April 27, 2018. No impacts to low-income or minority populations will occur. No adverse effects would be borne disproportionately by a minority or low-income population related to short-term construction effects or long-term operational effects since the Project area is not considered an environmental justice community.

***9. Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?***

**Response:**

The Pure Water San Diego Program is currently in the planning stage of development. During the planning phase no impacts to tribal lands will occur. The Pure Water North City Project Environmental Impact Report/Environmental Impact Statement SCH 2016081016 was certified by San Diego City Council on April 10, 2018. The final EIS was published in the Federal Register by the Bureau of Reclamation on April 27, 2018. This project level CEQA and NEPA documents provides an analysis of project level impacts to Indian sacred sites and tribal lands. The project will have no impacts to Indian sacred sites or result in impacts to tribal lands. Technical study results state that no Indian sacred sites are present in the project area. The project is not located on tribal lands.

***10. Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?***

**Response:**

The Pure Water Program is currently in the planning stage of development and, as such, will not contribute to the introduction, continued existence, or spread of noxious weeds or invasive species. The North City EIR/EIS includes an analysis of the project's potential contribution or spread of non-native species. The North City Project will not contribute to the spread of non-native species. All undeveloped areas disturbed during construction must be revegetated or restored in accordance with the Revegetation Plan prepared for the North City Project. This plan identifies a planting palette that includes native plant species and a maintenance plan that ensures no invasive or non-native plant species become established or spread from the project area.



## Chapter 5 Required Permits or Approvals

The City will require approval by the State Water Resources Control Board's Division of Drinking Water and the Regional Water Quality Control Board (Regional Board). Division of Drinking Water has the authority to approve reservoir augmentation projects while the Regional Board will regulate this project through a National Pollution Discharge Elimination System (NPDES) permit.

SWRCB DDW – Anticipated January 2025

RWQCB NPDES – Anticipated by mid 2020

Environmental permits are expected to be needed for the construction of the North City Project and may include:

- RWQCB 401 Certification – Obtained December 21, 2018
- Army Corps of Engineers CWA 404 – Obtained December 21, 2018
- California Department of Fish and Wildlife Streambed Alteration Agreement – Obtained October 31, 2018

## Chapter 6 Funding Plan and Letters of Commitment

The total cost for the Pure Water Program is estimated to be over \$3 billion dollars. The North City Project estimated total cost is \$14,161,923 through December 2019 under this proposal.

The non-Federal cost share will be provided by the City monetarily and supported by the water and wastewater revenues. The City is actively pursuing additional funding sources for the North City Project and the overall Pure Water Program as funding opportunities become available. The City also submitted an application to the State Water Resources Control Board seeking low interest State Revolving Fund loans for this program.

In addition, the City of San Diego has a long-standing working relationship with Bureau of Reclamation having successfully executed funding agreements under the Title XVI Water Reclamation & Reuse Program for many of the City's past projects. In addition, Reclamation has previously provided funds for the planning and demonstration phases of the Pure Water Program under separate funding agreements. A recent Cooperative Agreement provided \$9,140,000 towards development of environmental documentation and construction document preparation for this project. A copy of the Agreement is provided in Appendix C. In addition, a Contributed Funds Agreement (CFA) is providing funding to assist the City with activities necessary to complete compliance with California Environmental Quality Act and the National Environmental Policy Act for the Pure Water Program. A copy of that Agreement is provided in Appendix C also.

Table 6-1 provides a summary of non-federal and federal funding sources:



**Table 6-1: Summary of Non-Federal and Federal Funding Sources**

<b>Funding Sources</b>	<b>Amount</b>
<b>Non-Federal Entities</b>	<b>0</b>
<b>City of San Diego/Public Utilities Department</b>	<b>\$ 10,621,442</b>
<b>Non-Federal Subtotal</b>	<b>\$ 10,621,442</b>
<b>Other Federal Entities</b>	<b>0</b>
<b>Other Federal Subtotal</b>	<b>0</b>
<b>Requested Reclamation Funding</b>	<b>\$3,540,481</b>

Project expenditures that have occurred or may be incurred before the anticipated award date that will be included as project costs will include labor expenditures for planning, pre-design and environmental compliance. On-going studies and engineering evaluations were also conducted during this period. These project expenditures prior to the anticipated award date (FY2015 to FY2020) is estimated at \$14,161,923 under this proposal.

Complete reports for additional information on the Pure Water Program and the North City Project may be found at: [www.sandiego.gov/water/purewater/purewatersd/index.shtml](http://www.sandiego.gov/water/purewater/purewatersd/index.shtml).



## Chapter 7 Budget Proposal

Budget Item Description	Computation	Computation	Quantity type (hours/days)	Total Cost (\$)
	\$/Unit	Quantity		
City Labor				\$14,961,923
Estimated Total Project Cost				\$14,961,923

See Attachments A.

## Chapter 8 Budget Narrative

### *City Labor*

The project costs are for City labor. See Attachment A for Budget Proposal detail.

The key personnel assigned to this project are Amy Dorman, Program Manager, and Amer Barhoumi, Senior Civil Engineer.

## Chapter 9 Letters of Support

The City has garnered support for the Pure Water Program and the North City Project from various associations, organizations and business. Please see Appendix B for a few of the letters of support.

## Chapter 10 Official Resolution

See Appendix D

## Chapter 11 Unique Entity Identifier and Systems for Award Management

The City of San Diego is registered in SAMS. The unique entity identifier code is 1SXR3



City of San Diego - Pure Water San Diego Program, North City Component  
Budget Detail

Attachment A

Classification	Average Salary	Average Fringe	Average Total	Hourly Salary Rate	Hourly Fringe Rate	Loaded Labor	Overhead	Load Fringe	Fully Cost Recoverable Hourly Rate	Total Estimated Hours	Total Estimated Cost
Admin Aide 1	\$46,209.00	\$43,289.00	\$89,498.00	\$22.22	\$20.81	\$26.98	\$40.14	\$4.45	\$71.57	110.5	\$7,908.19
Admin Aide 2	\$52,436.00	\$49,063.00	\$101,499.00	\$25.21	\$23.59	\$30.60	\$45.54	\$5.05	\$81.19	18.5	\$1,502.08
Asbestos & Lead Prgm Inspect	\$70,476.00	\$27,718.00	\$98,194.00	\$33.88	\$13.33	\$41.13	\$61.20	\$2.85	\$105.18	19	\$1,998.51
Assoc Chemist	\$88,823.00	\$88,728.00	\$177,551.00	\$42.70	\$42.66	\$51.84	\$77.13	\$9.13	\$138.10	3859.5	\$533,003.46
Assoc Engineer - Civil	\$83,447.00	\$66,344.00	\$149,791.00	\$40.12	\$31.90	\$48.71	\$72.47	\$6.83	\$128.01	25225.37	\$3,229,007.08
Assoc Engineer - Electrical	\$85,024.00	\$42,469.00	\$127,493.00	\$40.88	\$20.42	\$49.63	\$73.85	\$4.37	\$127.85	2	\$255.69
Assoc Engineer - Traffic	\$84,695.00	\$76,382.00	\$161,077.00	\$40.72	\$36.72	\$49.43	\$73.56	\$7.86	\$130.85	27	\$3,532.95
Assoc Mgmt Analyst	\$63,712.00	\$54,986.00	\$118,698.00	\$30.63	\$26.44	\$37.18	\$55.33	\$5.66	\$98.17	8	\$785.39
Assoc Planner	\$74,890.00	\$41,297.00	\$116,187.00	\$36.00	\$19.85	\$43.70	\$65.03	\$4.25	\$112.98	130.2	\$14,710.45
Asst Dept Director	\$152,138.00	\$152,431.00	\$304,569.00	\$73.14	\$73.28	\$88.79	\$132.12	\$15.68	\$236.60	10400	\$2,460,601.69
Asst Deputy Director	\$121,055.00	\$84,784.00	\$205,839.00	\$58.20	\$40.76	\$70.65	\$105.13	\$8.72	\$184.51	3	\$553.54
Asst Engineer - Civil	\$69,878.00	\$38,622.00	\$108,500.00	\$33.60	\$18.57	\$40.79	\$60.70	\$3.97	\$105.46	18354.71	\$1,935,696.81
Asst Engineer - Traffic	\$68,466.00	\$31,599.00	\$100,065.00	\$32.92	\$15.19	\$39.96	\$59.47	\$3.25	\$102.68	0.4	\$41.07
Asst Mgmt Analyst	\$52,320.00	\$63,544.00	\$115,864.00	\$25.15	\$30.55	\$30.53	\$45.43	\$6.54	\$82.50	6	\$495.01
Asst Reservoir Keeper	\$43,262.00	\$39,541.00	\$82,803.00	\$20.80	\$19.01	\$25.25	\$37.57	\$4.07	\$66.89	6	\$401.36
Asst Water Plant Oper	\$52,582.00	\$29,250.00	\$81,832.00	\$34.47	\$35.93	\$41.85	\$62.27	\$7.69	\$111.80	31	\$3,465.90
Biologist 3	\$88,789.00	\$52,409.00	\$141,198.00	\$42.69	\$25.20	\$51.83	\$77.12	\$5.39	\$134.34	111	\$14,911.19
Cement Finisher	\$60,617.00	\$43,569.00	\$104,186.00	\$29.14	\$20.95	\$35.38	\$52.64	\$4.48	\$92.50	52	\$4,809.93
Clerical Asst 2	\$36,825.00	\$32,470.00	\$69,295.00	\$17.70	\$15.61	\$21.49	\$31.97	\$3.34	\$56.80	51.7	\$2,936.67
Cmnty Dev Spec 3	\$80,316.00	\$71,938.00	\$152,254.00	\$38.61	\$34.59	\$46.87	\$69.75	\$7.40	\$124.02	85.5	\$10,603.81
Contracts Processing Clerk	\$42,167.00	\$24,392.00	\$66,559.00	\$20.27	\$11.73	\$24.61	\$36.62	\$2.51	\$63.73	101.5	\$6,469.04
Deputy City Attorney	\$123,759.00	\$77,390.00	\$201,149.00	\$59.50	\$37.21	\$72.23	\$107.48	\$7.96	\$187.68	4737.64	\$889,153.85
Deputy Director	\$137,177.00	\$108,735.00	\$245,912.00	\$65.95	\$52.28	\$80.06	\$119.13	\$11.19	\$210.39	3	\$631.16
Development PM 1	\$70,369.00	\$27,591.00	\$97,960.00	\$33.83	\$13.27	\$41.07	\$61.11	\$2.84	\$105.02	4.5	\$472.59
Development PM 2	\$83,640.00	\$57,906.00	\$141,546.00	\$40.21	\$27.84	\$48.81	\$72.64	\$5.96	\$127.41	301.5	\$38,413.91
Development PM 3	\$96,873.00	\$91,009.00	\$187,882.00	\$46.57	\$43.75	\$56.54	\$84.13	\$9.36	\$150.02	1	\$150.02
Electrician	\$60,264.00	\$33,978.00	\$94,242.00	\$28.97	\$16.34	\$35.17	\$52.33	\$3.50	\$91.00	76.5	\$6,961.40
Environmental Biologist 3	\$88,214.00	\$35,118.00	\$123,332.00	\$42.41	\$16.88	\$51.49	\$76.61	\$3.61	\$131.71	362.2	\$47,704.94
Environmental Health Coord	\$72,862.00	\$28,239.00	\$101,101.00	\$35.03	\$13.58	\$42.53	\$63.28	\$2.91	\$108.71	8.5	\$924.04

Sr WW Oper Supv	\$95,360.00	\$58,332.00	\$153,692.00	\$45.85	\$28.04	\$55.66	\$82.82	\$6.00	\$144.49	3602.48	\$520,512.85
Sr. Wstwtr Plant Oprator	\$72,867.00	\$43,178.00	\$116,045.00	\$35.03	\$20.76	\$42.53	\$63.28	\$4.44	\$110.25	408	\$44,981.34
Student Engineer	-	-	-	\$15.08	\$1.37	\$18.31	\$27.24	\$0.29	\$45.84	0	\$0.00
Supv Property Agent	\$84,428.00	\$37,103.00	\$121,531.00	\$40.59	\$17.84	\$49.28	\$73.32	\$3.82	\$126.42	255.75	\$32,331.17
Supv Public Info Ofcr	\$71,284.00	\$65,967.00	\$137,251.00	\$34.27	\$31.71	\$41.60	\$61.91	\$6.79	\$110.30	77.4	\$8,536.92
Utility Worker 1	\$37,406.00	\$30,921.00	\$68,327.00	\$17.98	\$14.87	\$21.83	\$32.48	\$3.18	\$57.49	0	\$0.00
Water Utility Supv	\$55,456.00	\$68,065.00	\$123,521.00	\$26.66	\$32.72	\$32.37	\$48.16	\$7.00	\$87.53	0	\$0.00
Water Utility Worker	\$42,328.00	\$53,206.00	\$95,534.00	\$20.35	\$25.58	\$24.70	\$36.76	\$5.47	\$66.94	68	\$4,551.91
Welder	\$55,565.00	\$76,209.00	\$131,774.00	\$26.71	\$36.64	\$32.43	\$48.25	\$7.84	\$88.52	11	\$973.68
Wstwtr Operations Supv	\$86,762.00	\$95,047.00	\$181,809.00	\$41.71	\$45.70	\$50.64	\$75.35	\$9.78	\$135.76	4962.58	\$673,729.88
Water Plant Operator	\$71,700.00	\$74,737.00	\$146,437.00	\$34.47	\$35.93	\$41.85	\$62.27	\$7.69	\$111.80	552	\$61,715.43
Water Production Superintend	\$98,083.00	\$101,213.00	\$199,296.00	\$47.16	\$48.66	\$57.25	\$85.19	\$10.41	\$152.86	17.5	\$2,674.99
Wstwtr Treatment Supt	\$117,457.00	\$117,445.00	\$234,902.00	\$56.47	\$56.46	\$68.55	\$102.01	\$12.08	\$182.65	0	\$0.00
Wstwtr Plant Operator	\$71,700.00	\$74,737.00	\$146,437.00	\$34.47	\$35.93	\$41.85	\$62.27	\$7.69	\$111.80	3194.1	\$357,110.96
Word Processing Oper	\$39,265.00	\$35,129.00	\$74,394.00	\$18.88	\$16.89	\$22.92	\$34.11	\$3.61	\$60.64	4.1	\$248.62
Total											\$14,161,922.99

Notes:

Load Rate 21.4%

Overhead Rate 148.8%





## APPENDIX A

### Environmental Protection Agency Record of Decision



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF WATER

## RECORD OF DECISION

### Providing Financing to the City of San Diego for the North City Project, Pure Water San Diego

#### Pursuant to 40 CFR 6.208

#### 1.0 Introduction

This document serves as the U.S. Environmental Protection Agency's (EPA) Record of Decision (ROD) to provide financing to the City of San Diego for the *North City Project, Pure Water San Diego* which is based on the Final Environmental Impact Statement (FEIS) prepared by Bureau of Reclamation (BOR). EPA has adopted the environmental analysis prepared by BOR, in accordance with 40 CFR 1506.3 (c). EPA's decision is based on the preferred alternative as described in the FEIS.

The North City Project would construct facilities that could produce an annual average daily flow of 30 million gallons per day (MGD) of locally controlled water and reduce flows to the Point Loma Wastewater Treatment Plant (WWTP), which in turn would reduce total suspended solids discharged to the ocean. This project will expand the existing North City Water Reclamation Plant (NCWRP) and construct an adjacent North City Pure Water Facility. EPA is providing financial assistance under the Water Infrastructure Finance and Innovation Act (WIFIA) of 2014, as amended by section 1445 of the Fixing America's Surface Transportation Act of 2015 and section 5008 of the Water Infrastructure Improvements for the Nation Act of 2016.

#### 2.0 Background

The City of San Diego has submitted an application for financial assistance in response to a solicitation issued by EPA under WIFIA. In addition, BOR is considering providing federal assistance as authorized by the Reclamation Wastewater and Groundwater Study and Facilities Act of 1992 (Title XVI of Public Law 102-575). The environmental impacts from the North City Project were analyzed pursuant to the National Environmental Policy Act (NEPA) in the *North City Project, Pure Water San Diego Final Environmental Impact Statement (EIS)* prepared by the BOR. The Notice of Availability (NOA) for the Draft EIS was published on November 28, 2017 (82 FR 56264) and Final EIS on May 4, 2018 (83 FR 19758). On January 8, 2018, EPA's Region IX Environmental Review Office rated the DEIS action alternatives as *Lack of Objections*; no comments were provided on the FEIS. EPA was a cooperating agency on the EIS.





In accordance with Section 102 of NEPA, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR parts 1500-1508) and the EPA's Procedures for Implementing NEPA (40 CFR part 6), the EPA determined that the project analyzed in the EIS was substantially the same as the project that would be financed under WIFIA. Therefore, EPA conducted an independent review and evaluation of the BOR's FEIS for the *North City Project, Pure Water San Diego*. Based on its independent review and evaluation, the EPA determined the FEIS, including all supporting documentation, as incorporated by reference, adequately assesses and discloses the environmental impacts for the issuance of financial assistance under WIFIA, and adoption of the EIS by the EPA is authorized under 40 CFR 1506.3. Accordingly, the EPA adopted the Final EIS for the *North City Project, Pure Water San Diego* and takes full responsibility for the scope and content that evaluates the environmental impacts of providing financing under WIFIA. EPA published its formal announcement of adoption of the on June 15, 2018 (83 FR 27983). EPA is issuing this decision for providing financing under WIFIA for the *North City Project, Pure Water San Diego* in accordance with EPA's NEPA regulations at 40 CFR 6.208.

### **3.0 Purpose and Need**

The purpose of the EPA's Proposed Action is to provide financing to the City of San Diego under WIFIA. On average, 85 percent of the City's water supply is imported from the Colorado River and Northern California. This reliance on imported water causes San Diego to be vulnerable to supply shortages and price increases. With few local water supply options, the City has explored potable and non-potable reuse options of treated wastewater. On April 29, 2014, the City Council adopted a resolution (R-308906) supporting the Pure Water Program. The Pure Water Program will ultimately produce 83 MGD of locally controlled water and will be implemented in phases over a 20-year period, grouped by geographical area: North City, Central Area, and South Bay. The North City Project will produce 30 MGD of purified water and is scheduled to be operational in 2021. The Central Area project and/or South Bay projects are scheduled to be completed by December 31, 2035, and will produce a combined total up to 53 MGD. A Final Program Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA) for the Pure Water Program was certified by the City on October 25, 2016.

The purpose of the North City Project is to plan, design, construct and operate the treatment and conveyance facilities necessary to produce 30 MGD of purified water, thereby creating a new source of reliable, locally controlled water. The North City Project would expand the City's potable water production capacity to replace imported water supplies and would meet projected water demands within the City's service area as outlined in the conceptual future water supply sources in the City's 2015 Urban Water Management Plan. The North City Project will also serve existing and planned future non-potable recycled water customers.

### **4.0 Proposed Federal Action**

The EPA Proposed action is to provide financial assistance to the North City Project, Pure Water San Diego under EPA's WIFIA program. The proposed action, the North City Project, would create up to 30 MGD of locally controlled water and reduce flows to the Point Loma WWTP, which in turn would reduce total suspended solids discharged to the ocean. The North City Project would construct facilities that could produce an annual average daily flow of 30 MGD starting in 2021. The North City Project



will expand the existing North City Water Reclamation Plant (NCWRP) and construct an adjacent North City Pure Water Facility.

## 5.0 Alternatives

The final EIS analyzed the potential environmental effects of three alternatives including the no action alternative. Alternative 1, Miramar Reservoir Alternative, will construct the North City Pure Water Facility and convey purified water to Miramar Reservoir, and includes improvements to the existing Miramar Water Treatment Plant. Alternative 2, San Vicente Reservoir Alternative, would also construct the North City Pure Water Facility, but includes fewer treatment processes and would install a longer purified water pipeline to the much larger San Vicente Reservoir. The San Vicente Reservoir Alternative includes an additional pump station, the Mission Trails Booster Station, along the San Vicente Pure Water Pipeline. Improvements to the Miramar Treatment Plant would not be needed for the San Vicente Reservoir Alternative.

Under the No Project/No Action Alternative, the North City Project would not be implemented. The proposed North City Pure Water Facility and associated improvements at other treatment, pumping, and conveyance facilities would not be constructed.

### Environmentally Preferable Alternative

Alternative 1, the Miramar Reservoir Alternative, was identified as the Environmentally Preferable Alternative. Compared to the San Vicente Reservoir Alternative, the Miramar Reservoir Alternative would have less impact to biological resources, lower greenhouse gas emissions, less community disruption and less electricity and gas consumption.

The No Project/No Action Alternative would avoid all project-related impacts, but would meet none of the project objectives. Beneficial impacts, including creation of a local renewable energy source and replacement of existing imported supply with a new, local, drought-proof supply, would not occur.

## 6.0 Environmental Impacts

EPA has completed an independent review and evaluation of the BOR's Final EIS in accordance with the CEQ regulations (40 CFR 1506.3(c)) and the EPA's Procedures for Implementing NEPA (40 CFR part 6). EPA has also reviewed the following information and incorporates it by reference:

- Notice of Decision and Technical Decision Document granting request of San Diego E.W. Blom Point Loma Metropolitan Wastewater Treatment Plant and Ocean Outfall for renewal of a NPDES Permit No. CA0107409 modified under section 301(h) & (j)(5) of the Clean Water Act (CWA). <https://www.epa.gov/npdes-permits/ew-blom-point-loma-metropolitan-wwtp-and-ocean-outfall-san-diego-ca-ca0107409>

The following summarizes analyses in the Final EIS and presents the results of the EPA's independent review and evaluation regarding the potential environmental impacts of the EPA's Proposed Action.

The significant environmental impacts for the Proposed Action are summarized in Table ES-1 of the FEIS. Impacts associated with land use (San Vicente Reservoir Only), air quality (Miramar Reservoir





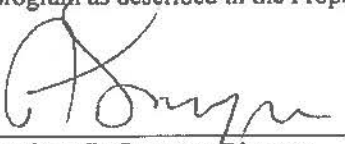
Only), biological resources, health and safety/hazards, historical resources, paleontological resources, and public utilities were identified as being potentially significant, but less than significant with mitigation. Impacts associated with air quality (San Vicente Reservoir Alternative only); aesthetics (San Vicente Reservoir Alternative Only); noise (both Project Alternatives); and transportation, circulation, and parking (both Project Alternatives) were identified as being significant and unavoidable.

Detailed descriptions of the affected environmental and existing conditions can be found in Chapter 5 of the EIS. Environmental impact analysis and cumulative effects of the proposed action and alternatives are discussed in Chapter 6 and 7 of the EIS.

Chapter 10 of the FEIS describes the mitigation measures for the project. EPA financing provided under WIFIA requires applicants to comply with all applicable Federal, State, Local and Tribal laws, authorizations, and approvals. Borrowers are required to remain in compliance with federal requirements such as environmental statutes and other requirements as set forth in the credit agreement. The WIFIA program performs compliance management and monitoring to verify that borrowers are abiding by the terms of the credit agreement and prevailing laws and regulations.

#### 7.0 Decision

This decision signifies that applicable federal environmental requirements relating to the Proposed Action have been met. The decision enables the EPA to provide financial assistance under the WIFIA program as described in the Proposed Action.

  
\_\_\_\_\_  
Andrew D. Sawyers, Director  
Office of Wastewater Management

  
\_\_\_\_\_  
Date



## APPENDIX B

### Letters of Support for the Pure Water Program





402 West Broadway, Suite 1000  
San Diego, CA 92101-3585  
p: 619.544.1300

[www.sdechamber.org](http://www.sdechamber.org)

September 24, 2014

Ann Sasaki  
Assistant Director of Public Utilities  
Pure Water San Diego Program  
City of San Diego  
9192 Topaz Way  
San Diego, CA 92123

Dear Ms. Sasaki:

On behalf of the San Diego Regional Chamber of Commerce (Chamber), I am writing to express our support for the Pure Water San Diego program, which will provide San Diego with a safe, sustainable local supply of drought-proof drinking water and help eliminate the Point Loma Wastewater Treatment Plant's need for a modified permit.

With nearly 3,000 members representing 400,000 employees, the Chamber is actively involved in local government, regional economic development and providing valuable resources to its members. Through participating in the Mayor's Pure Water Working Group, the Chamber has had the opportunity to learn the science of Pure Water San Diego and understands that purified water will meet federal and state drinking water standards. Accordingly, on August 28, 2014, the Chamber's Board of Directors voted to support the Pure Water San Diego program in concept. Further, during the Chamber's annual delegation trip to Washington, D.C. in September, we hosted a Water Roundtable to discuss advantages of the Pure Water San Diego program with federal, state and local representatives.

Pure Water San Diego presents a long-term solution to the City's water needs, while also providing region-wide benefits. Pure Water San Diego will give San Diego enhanced control of its water supply, thereby reducing independence on imported water. It will also help reduce ocean pollution and save ratepayers billions in upgrades to the Point Loma Wastewater Treatment Plant.

For the reasons stated above, the Chamber urges you to support the Pure Water San Diego Program. If you have any questions, please do not hesitate to contact Chanelle Hawken, Executive Director of Public Policy, at (619) 544-1365 or [chawken@sdechamber.org](mailto:chawken@sdechamber.org).

Sincerely,

Jerry Sanders  
President & CEO  
San Diego Regional Chamber of Commerce



CC: Honorable Kevin Faulconer  
Honorable Members of the City Council





November 4, 2014

Council President Todd Gloria  
San Diego City Council  
202 C St #10  
San Diego, CA 92101  
toddgloria@sandiego.gov

**Re: San Diego Coastkeeper Support for Pure Water and Cooperative Agreement**

*Sent via email*

Dear Council President Gloria and City Councilmembers:

On behalf of San Diego Coastkeeper I am writing to you today to express enthusiastic support for the City's Pure Water program and associated permitting process. San Diego Coastkeeper is a non-profit organization working to protect and restore the San Diego region's bays, beaches, watersheds, and ocean. Coastkeeper was founded in 1995 and has worked with the City over these past 19-plus years towards the realization of sound water quality and water supply solutions throughout our region. In continuation of those efforts, we are a signatory to the Pure Water Cooperative Agreement with the City.

With the upcoming vote on this matter, Council is poised to take a leadership role in ushering in a new era and approach to integrated water management solutions in our City, our region, and the southwestern United States. The importance of the upcoming decision cannot be overemphasized. For well over ten years Coastkeeper has been involved in the process of seeking an appropriate solution to Point Loma discharge that includes recycling and the production of locally-controlled potable water for our region. Today, Coastkeeper is pleased to support the City's Pure Water program and is proud to have been part of the development of the Cooperative Agreement with the City. We believe that this program will benefit not only our ocean and marine environment by beginning to reduce discharges into the ocean, but that it will also greatly benefit our region's current and future water supply needs.

Thank you for your commitment to finding environmentally appropriate solutions to both our water quality and water supply needs. The Pure Water program is truly a win-win for our City and our region.

Sincerely,

Matt O'Malley  
Waterkeeper, Legal & Policy Director

**FISHABLE. SWIMMABLE. DRINKABLE.**



San Diego Coastkeeper is a registered trademark of the Waterkeeper Alliance

2825 Dewey Road #200  
San Diego, CA, 92106  
619.758.7743  
[www.sdcoastkeeper.org](http://www.sdcoastkeeper.org)



cc:

Council President Pro Tem Sherri Lightner, [sherrilightner@sandiego.gov](mailto:sherrilightner@sandiego.gov)

Councilmember Ed Harris, [edharris@sandiego.gov](mailto:edharris@sandiego.gov)

Councilmember Myrtle Cole, [myrtlecole@sandiego.gov](mailto:myrtlecole@sandiego.gov)

Councilmember Mark Kersey, [markkersey@sandiego.gov](mailto:markkersey@sandiego.gov)

Councilmember Lorie Zapf, [loriezapf@sandiego.gov](mailto:loriezapf@sandiego.gov)

Councilmember Scott Sherman, [scottsherman@sandiego.gov](mailto:scottsherman@sandiego.gov)

Councilmember David Alvarez, [davidalvarez@sandiego.gov](mailto:davidalvarez@sandiego.gov)

Councilmember Marti Emerald, [martiemerald@sandiego.gov](mailto:martiemerald@sandiego.gov)

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**FISHABLE. SWIMMABLE. DRINKABLE.**



San Diego Coastkeeper is a registered trademark of the Waterkeeper Alliance

2825 Dewey Road #200  
San Diego, CA, 92106  
619.758.7743  
[www.sdcoastkeeper.org](http://www.sdcoastkeeper.org)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

SEP 17 2015

OFFICE OF THE  
REGIONAL ADMINISTRATOR

Mayor Kevin Faulconer  
City of San Diego  
City Administration Building  
202 C Street, 11th Floor  
San Diego, CA 92101

Dear Mayor Faulconer:

Thank you for meeting with Administrator McCarthy and me regarding the Pure Water San Diego Program and the Point Loma Wastewater Treatment Plant (WWTP). We have enjoyed a very cordial and productive working relationship with the City and San Diego stakeholders and are confident this productive engagement will continue. We commit to continue working with you on development of the water infrastructure necessary to meet the City's water supply and water quality protection needs.

We strongly support San Diego's plans to develop potable reuse capacity to reduce the region's reliance on imported supplies. We commend your work to involve and build support among local communities, businesses, and citizen groups in developing the Pure Water Program and its relationship to Point Loma operations. The Pure Water Program will optimize the benefits of investments in wastewater infrastructure in a way that is fully consistent with EPA's integrated planning initiative.

As we discussed, we understand San Diego area communities are concerned that investing in the infrastructure expansion associated with the Pure Water program will limit their financial capacity to upgrade treatment at Point Loma. As a result of expected Pure Water improvements in effluent quality, upgrades at Pt. Loma to achieve secondary treatment may not be needed to protect ocean water quality. I understand that the Pure Water planning process is progressing quickly and thus the City and its regional partners seek greater clarity regarding EPA views on the long-term regulatory prospects for the Point Loma plant. I value your efforts to work with us to explore potential options for addressing these concerns. We believe we can provide a significant level of assurance regarding these concerns based on what we now know.

We appreciate the City's timely submittal of its application for renewal of the NPDES permit and associated treatment standards for Point Loma pursuant to Clean Water Act Sections 402, 301(h) and 301(j)(5). We are reviewing the application in coordination with the San Diego Regional Water Quality Control Board, which jointly issues the NPDES permit for the Point Loma WWTP with EPA. We commend the City's willingness to incorporate specific provisions in the Point Loma permit linked to milestones in the Pure Water Program planning and implementation process. To date, we have identified no barriers to renewal of the permit and modified secondary treatment standards. EPA approved the three prior applications for modified secondary treatment standards for the Point Loma WWTP in 1995, 2002, and 2010 based on administrative records that demonstrated, in each instance, full satisfaction of the provisions of CWA Section 301(h) and 301(j)(5).

*Printed on Recycled Paper*



We expect that EPA and the Regional Water Board will be able to propose the revised NPDES permit with associated modified secondary treatment requirements by April, 2016 and issue the final permit by August, 2016 based on the application materials we have received. As you know, these permits are renewed on a five-year cycle. I expect EPA will be able to continue to renew subsequent CWA 301(h) modified permits for the Point Loma WWTP for as long as there are no relevant changes in the Clean Water Act and implementing regulations, and no significant deterioration in the quality of the Point Loma discharge or the response of the receiving ocean ecosystem to the ongoing discharge.

During our meeting, you explained that, due to ratepayer limitations, San Diego may be interested in seeking a legislative solution in order to provide long term financial certainty that the Cities will not need to fund both the Pure Water Program and further upgrades to achieve secondary treatment at Point Loma. While this letter is intended to provide you with a better understanding of the long-term permitting requirements for Point Loma, nothing in this letter precludes the City's ability to pursue legislative amendments.

As we discussed, EPA understands that local governments face substantial challenges in funding water infrastructure needs. The California Clean Water and Drinking Water State Revolving Funds may offer a cost-effective mechanism to finance elements of the Pure Water Program, and we would be happy to discuss funding options with the State Water Resources Control Board and the City.

We commend the City's leadership in developing an integrated long-term plan to build a more sustainable regional water supply system while ensuring water quality protection. Building on our productive meeting with Halla Razak on August 27th, we look forward to continuing our efforts to help move the Pure Water project forward. If you have questions, please contact me at (415) 947-8702 or David Smith, NPDES Permits Section, at (415) 972-3464.

Sincerely,



Jared Blumenfeld

cc: Gina McCarthy, EPA  
David Gibson, RWQCB  
Charles Lester, CCC





SCOTT H. PETERS  
52ND DISTRICT, CALIFORNIA

2410 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
(202) 225-0508

COMMITTEE ON  
ARMED SERVICES

COMMITTEE ON  
SCIENCE, SPACE, AND TECHNOLOGY

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-0552**

May 11, 2016

Estevan López  
Commissioner  
Bureau of Reclamation  
1849 C Street NW  
Washington DC 20240-0001

RE: City of San Diego Public Utilities Department WaterSMART Grant Application Proposal

Commissioner López,

I write in support of the City of San Diego's December 2015 application for a WaterSMART: Title XVI Water Reclamation and Reuse Program grant. San Diego's Pure Water Program is an innovative approach to long term water sustainability and climate change mitigation, meeting both federal wastewater standards and the needs of the community. I regret that I learned only this week that the City had submitted its formal application. I urge the Bureau of Reclamation to strongly consider the merits of the Pure Water San Diego Program, North City Project.

San Diego's Pure Water Program will use water purification technology to recycle wastewater and ultimately produce one-third of San Diego's drinking water supply locally by 2035. San Diego is already experiencing the threats of drought and climate change and this month made a substantial investment in the Pure Water Program as part of the City's Climate Action Plan. The North City Project is the first phase and foundation of the program that will produce 30 million gallons per day (mgd) of purified water by 2021. Federal support will be critical to bring this project to completion.

I encourage the Bureau of Reclamation to give favorable consideration to the City of San Diego's Pure Water Program application. Thank you for your attention to this matter. For any further questions, please do not hesitate to contact my office at 202-225-0508.

Sincerely,

Scott Peters  
Member of Congress

PRINTED ON RECYCLED PAPER



## APPENDIX C

**Contributed Funds Agreement No. R15CF35002 between City of San Diego Public Utilities Department and the Bureau of Reclamation, Department of the Interior for the Pure Water San Diego Program, North City Project.**

**Cooperative Agreement RA16AC00105 between City of San Diego Public Utilities Department and the Bureau of Reclamation for the Pure Water San Diego Program, North City Project.**





R15CF35002

**CONTRIBUTED FUNDS AGREEMENT**  
**No. R15CF35002**  
**BETWEEN**  
**CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT**  
**AND**  
**THE BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR**  
**for the**  
**Pure Water San Diego Program, North City Project**

- I. This Contributed Funds Agreement (CFA) for the Pure Water San Diego Program, North City Project (Project) is entered into by the City of San Diego Public Utilities Department (hereinafter referred to as PUD), and the United States Department of the Interior, Bureau of Reclamation (hereinafter referred to as Reclamation).**
- II. Background and Purpose.** Section 1612 of P.L. 102-575, as amended, authorizes Reclamation to participate in the San Diego Area Water Reclamation Program. The City of San Diego has been pursuing the project now known as the Pure Water San Diego Program for many years, and Reclamation has provided funds under the Title XVI authority for the planning and demonstration phases of the project under separate funding agreements. Since funding for authorized projects is now only obtained through successful application under annual Funding Opportunity Announcements (FOA), Reclamation does not have discretionary funding for environmental compliance for projects that have not yet received funding from an FOA. The purpose of this CFA is to provide funding for Reclamation to assist the PUD with activities necessary to complete compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).
- III. Authority.** Reclamation's authority for the acceptance of non-federal funds identified in this Agreement is through the statutory authority of the Sundry Civil Expenses Appropriations Act for 1922, 41 Stat. 1367, 1404 (43 U.S.C. §395), popularly referred to as the Contributed Funds Act, which provides that: "All moneys [received after March 4, 1921] from any State, municipality, corporation, association, firm, district, or individual for investigations, surveys, construction work, or any other development work incident thereto, involving operations similar to those provided for the reclamation law shall be covered into the reclamation fund and shall be available for expenditure for the purposes for which contributed in like manner as if said sums had been specifically appropriated for said purposes."
- IV. Scope.** The funds provided by the PUD under this CFA will be utilized by Reclamation to perform activities necessary to complete compliance with NEPA and related Federal requirements. The specific tasks to be performed are listed in Attachment 1. Reclamation is authorized to perform this work under Section 1612 of P.L. 102-575, as amended.



R15CF35002

- V. Responsibilities.** The PUD will provide Reclamation with funds from a non-Federal source, in the amount identified in section VI, to perform the work identified in section IV. These funds will be electronically transferred to Reclamation and deposited within a special account. Upon request, Reclamation will provide the PUD with a statement accounting for expenditures associated with this CFA.
- VI. Funding.** The estimated total cost for the work to be performed under this CFA is \$50,000. This amount may be increased by modification as identified in section IX.
- VII. Advancement of Funds.** In accordance with Anti-Deficiency Act (31 U.S.C. 1341 et seq.), funds must be provided to Reclamation in advance of activities performed by Reclamation personnel. The PUD shall advance to Reclamation funds identified in section VI.
- VIII. Period of Performance.** This CFA shall remain in full force and effect for a period commencing from the date executed by the PUD and Reclamation as identified in section XII, and extending to, but not exceeding January 31, 2019. This date may be extended by modification as identified in section IX. The term of the CFA shall not exceed five years unless approved by the San Diego City Council by ordinance.
- IX. Modification and Termination.** This CFA may be modified or terminated, in writing, by mutual agreement of the PUD and Reclamation.
- X. Unused Funds.** In the event that any funds advanced to Reclamation by the PUD are not required to complete the work identified in section IV, such excess funds shall be returned by Reclamation to the PUD without interest, within 90 days of: completion of the work defined in section IV; expiration of this CFA as identified in section VIII; or, termination of this CFA as identified in section IX.
- XI. Contacts.**

Mr. Doug McPherson  
Bureau of Reclamation  
Southern California Area Office  
27708 Jefferson Avenue, Suite 202  
Temecula, CA 92590  
(951) 695-5310

Ms. Keli Balo  
Public Utilities Department  
City of San Diego  
9192 Topaz Way  
San Diego, CA 92123  
(859) 292-6423





R15CF35002

**XII. Signature Parties.**

IN WITNESS WHEREOF, the Parties have executed this CFA on the date and the year written below.

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF RECLAMATION  
LC REGION

By: William J. Steele  
William J. Steele  
Area Manager

Date: August 11, 2015

CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT

By: Kristina Peralta  
Kristina Peralta  
Interim Director, Purchasing & Contracting Department

Date: 14 Sept. 2015

I HEREBY APPROVE the form of the foregoing Agreement on this 16<sup>th</sup> day of Sept., 2015.

JAN I. GOLDSMITH, City Attorney

By: Christine Leone  
Christine Leone  
Deputy City Attorney



R15CF35002

Attachment 1  
Reclamation Tasks

- Participate in monthly project team meetings
- Attend kickoff meeting with Pure Water Project EIR/EIS team
- Review NOP/NOI
- Review and approve revised NOI
- Attend meeting with Pure Water Project EIR/EIS team to strategize scoping meeting
- Publish NOI in Federal Register
- Attend scoping meeting
- Review administrative drafts of EIR/EIS
- Review draft EIR/EIS and NOA
- Review and approve revised draft EIR/EIS and NOA
- Publish NOA in Federal Register for draft EIR/EIS
- Review final EIR/EIS and ROD
- Publish NOA in Federal Register for final EIR/EIS
- Sign ROD



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF RECLAMATION  
ASSISTANCE AGREEMENT

1A. AGREEMENT NUMBER <b>R16AC00105</b>	1B. MOD NUMBER <b>007</b>	2. TYPE OF AGREEMENT <input type="checkbox"/> GRANT <input checked="" type="checkbox"/> COOPERATIVE AGREEMENT	3. CLASS OF RECIPIENT <b>City or Township Government</b>
4. ISSUING OFFICE <b>Bureau of Reclamation Lower Colorado Region P.O. Box 61470 Boulder City, Nevada 89006-1470</b>		5. RECIPIENT <b>City of San Diego 9193 Topaz Way San Diego, California 92123-1119</b>	
		EIN #:	956000776
		Country:	San Diego
		DUNS #:	826399206
		Congress Dist:	53
6. RECIPIENT PROJECT MANAGER <b>Pamela Carreon, Senior Management Analyst City of San Diego 9193 Topaz Way San Diego, California 92123-1119 Phone: 858-614-5753; Email: PCarreon@sandiego.gov</b>		7A. INITIAL AGREEMENT EFFECTIVE DATE: <b>September 13, 2016</b>	7B. MODIFICATION EFFECTIVE DATE: <b>See Block 13a</b>
		8. COMPLETION DATE <b>December 31, 2019</b>	
9A. PROGRAM STATUTORY AUTHORITY <b>Section 1612, Title XVI of P.L. 102-575, as amended</b>			9B. CFDA Number <b>15.504</b>
10. FUNDING INFORMATION	<u>NON-FEDERAL</u>	<u>RECLAMATION</u>	<u>TOTAL PROJECT COSTS</u>
Total Estimated Amount of Agreement	<b>\$85,504,137.00</b>	<b>\$28,501,379.00</b>	<b>\$114,005,516.00</b>
This Obligation	<b>(\$10,361,379.00)</b>	<b>\$10,361,379.00</b>	<b>\$0.00</b>
Previous Obligation	<b>\$95,949,516.00</b>	<b>\$18,056,000.00</b>	<b>\$114,005,516.00</b>
Total Obligation	<b>\$85,588,137.00</b>	<b>\$28,417,379.00</b>	<b>\$114,005,516.00</b>
11. PROJECT TITLE <b>Pure Water San Diego Program, North City Project</b>			
12a. Acceptance of this Assistance Agreement in accordance with the terms and conditions contained herein is hereby made on behalf of the above-named recipient <b>NO SIGNATURE REQUIRED</b> BY: _____ DATE: _____		13a. Award of this Assistance Agreement in accordance with the terms and conditions contained herein is hereby made on behalf of the United States of America, Department of the Interior, Bureau of Reclamation BY: <b>DIANA BLAKE</b> Digitally signed by DIANA BLAKE DA: 2019.09.07 10:00:00 -0700	
13b. NAME, TITLE, AND TELEPHONE NUMBER OF SONER <b>Johnnie Perkins Deputy Chief Operating Officer 619-236-6953</b>		13c. NAME OF GRANTS OFFICER <b>Diana Blake Grants Officer 702-293-8550</b>	

Modification Template  
(03/2019)



## APPENDIX D

### Official Resolution



4110  
6-14-16  
(R-2016-664)

RESOLUTION NUMBER R- 310530

DATE OF FINAL PASSAGE JUN 16 2016

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN DIEGO AUTHORIZING THE MAYOR AND/OR DESIGNEE TO APPLY FOR, ACCEPT AND EXECUTE A FINANCIAL ASSISTANCE APPLICATION TO THE U.S. BUREAU OF RECLAMATION UNDER THE WATERSMART TITLE XVI WATER RECLAMATION AND REUSE PROGRAM FOR FISCAL YEAR 2016 THROUGH FISCAL YEAR 2019 FOR FUNDING OF THE PURE WATER SAN DIEGO PROGRAM, NORTH CITY PROJECT.

WHEREAS, the Pure Water San Diego Program provides a new source of supply for the production of potable water for San Diego, increases the amount of reclaimed water, and diverts wastewater flows from the ocean outfalls while protecting the ocean; and

WHEREAS, on April 29, 2014, the City Council adopted Resolution Number R-308906 supporting the Pure Water San Diego Program, a phased, multi-year program that will ultimately create up to 83 million gallons per day of the City's water supply by 2035; and

WHEREAS, the North City Phase is comprised of the following main components: a new wastewater pump station that will collect additional wastewater flows and send the flows to the North City Water Reclamation Plant (NCWRP); the expansion of the NCWRP capacity; a new North City Advanced Water Purification Facility (NCAWPF) which will produce purified water for discharge to a local reservoir; and new pump stations and conveyance lines to move the purified water to the Miramar Reservoir until it is pulled into the existing water treatment system; and





(R-2016-664)

WHEREAS, in an effort to obtain funding for this Project, the City of San Diego proposes to apply for an amount up to \$44,567,750 in federal grant funds from the U.S. Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Program; and

WHEREAS, under Charter section 99, no contract, agreement or obligation extending for a period of more than five years may be authorized except by Ordinance approved by a two-thirds majority vote of the City Council; NOW, THEREFORE,

BE IT RESOLVED, by the Council of the City of San Diego, as follows:

1. That the Mayor or designee, is authorized and empowered for and on behalf of the City of San Diego to apply for, accept and execute a financial assistance application to the U.S. Bureau of Reclamation under the WaterSMART Title XVI Water Reclamation and Reuse Program for Fiscal Year 2016 through Fiscal Year 2019 for funding of the Pure Water San Diego Program, North City Project in an amount not to exceed \$44,567,750.
2. That the Chief Financial Officer is authorized to accept, appropriate and expend an amount not to exceed \$44,567,750 from the U.S. Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Program for the Pure Water San Diego Program, North City Projects if financial assistance application funding is secured.
3. That the Chief Financial Officer is authorized to establish a special interest-bearing account for the financial assistance, if required for the purpose of providing funds for the Project, provided that the Comptroller first furnishes one or more certificates certifying that funds necessary for expenditure are, or will be, on deposit with the City Treasurer.
4. That the Chief Financial Officer, upon advice from the administering department, is authorized to transfer excess funds, if any, to the appropriate reserves.

-PAGE 2 OF 3-



(R-2016-664)

APPROVED: JAN I. GOLDSMITH, City Attorney

By

Raymond C. Palmucci  
Deputy City Attorney

RCP:mt

May 31, 2016

Or.Dept:Public Utilities

Doc. No. 1286984

I hereby certify that the foregoing Resolution was passed by the Council of the City of San Diego, at this meeting of JUN 14 2016

ELIZABETH S. MALAND

City Clerk

By

Deputy City Clerk

Approved:

6/16/16

(date)

KEVIN L. FAULCONER, Mayor

Vetoed:

(date)

KEVIN L. FAULCONER, Mayor



Passed by the Council of The City of San Diego on JUN 14 2016, by the following vote:

Councilmembers	Yeas	Nays	Not Present	Recused
Sherri Lightner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lorie Zapf	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Todd Gloria	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Myrtle Cole	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mark Kersey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chris Cate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scott Sherman	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
David Alvarez	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marti Emerald	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date of final passage JUN 16 2016.

(Please note: When a resolution is approved by the Mayor, the date of final passage is the date the approved resolution was returned to the Office of the City Clerk.)

AUTHENTICATED BY:

KEVIN L. FAULCONER

Mayor of The City of San Diego, California.

ELIZABETH S. MALAND

City Clerk of The City of San Diego, California.

(Seal)

By Mary Hernandez, Deputy

Office of the City Clerk, San Diego, California

Resolution Number R- 310530