Pressure Reducing Station No. 2 Relocation and Emergency Booster Pump Station Project

WaterSMART: Drought Response Program: Drought Resiliency Projects for FY 2024
No. R24AS00007

Prepared For:
Bureau of Reclamation
Financial Assistance Support Section
Attn: Applied Science NOFO
P.O. Box 25007, MS 84-27133
Denver, CO 80225
SHA-DRO-FAFOA@usbr.gov
303-445-2906

Submitted By:
City of Santa Ana
20 Civic Center Plaza
Santa Ana, CA 92702-4058
Mr. Nabil Saba
Executive Director of Public Works
nsaba@santa-ana.org
714-647-3378

November 7, 2023

Table of Contents

Table of Tables

Table of Figures

SECTION 1: TECHNICAL PROPOSAL AND EVALUATION CRITERIA

Executive Summary

Date: October 31, 2023
City: City of Santa Ana
County: Orange County
State: California

Applicant Name: City of Santa Ana
Project Length of Time: 18 months
Estimated Completion Date: October 2026
Located on a Federal Facility: No

The City of Santa Ana is a Category 'A' applicant. The City of Santa Ana (the City) will relocate the existing Pressure Reducing Station No. 2 and construct a new Emergency Booster Pump Station to expand the upper zone's water supply sources to ensure the upper zone is provided water services in the event of water supply shortages (the Project). The area of the City north of the I-5 Freeway is considered the upper zone and is supplied with water from three wells and a water connection from the Metropolitan Water District of Southern California (MWD) connection. Recent discovery of PFAS contamination **within all the upper zone wells** and ongoing shortages of imported water received via MWD have made finding alternative sources of water to the upper zone critical. Recurrent, intense droughts in the region make water system efficiency and management projects even more challenging. The second most recent drought events include the 2017 event followed closely by the most recent drought, which began in 2020 and ended in 2023. The City completed two technical memoranda titled "Hydraulic Analysis Technical Memorandum" ("Hydraulic Analysis") and "Preliminary Site Technical Memorandum" (Site Memo") (Appendix A and B, respectively) to determine the optimal method for ensuring services are not interrupted in the upper zone of the City's water service area. The Project ensures that the entire water system can be supplied with reliable water supplies. The Project will allow the City to transfer up to **7,226 acre-feet per year (AFY)** between the upper and lower zones in the City. The upper zone will be able to provide water to the lower zone with the relocation of the pressure reducing valve and the lower zone will be able to provide water to the upper zone with the construction of the emergency pump station.

The City of Santa Ana has a population of ~ 335,000 people that reside within its service area. The service area includes residential, commercial, industrial, institutional, recreational, and agricultural customers with a total of over 45,000 connections. The City delivered a total of 30,818 AFY comprised of locally sourced groundwater (22,675 AFY), imported water purchased from the Metropolitan Water District of Southern California Orange County (MWDOC) (7,894 AFY), and recycled water (249 AFY). The amounts are subject to fluctuate year to year based on groundwater availability, imported water allocations set by the California Department of Water Resources, and other limiting factors. The City projects that the average annual water supplied will be 33,827 AFY by the year 2045.

The proposed Project will have a pumping flow capacity of 4,480 gallons per minute (gpm) or **7,226 are-feet per year (AFY)** (24% of City's total 2020 supply) of drinking water, meaning 7,226 AFY will be able to be transferred between the upper zone and lower zone in the event of a

loss of supply from either zone. This operational flexibility will allow the City to ensure water demands are met with growing concerns of groundwater contamination, prolonged drought conditions, and other water supply limiting factors that may arise.

The Project further implements one of the strategies identified in the City's ongoing planning efforts to build resiliency to droughts by making water available in the short and long terms and providing flexibility in current and future years of low water supply. The Project is directly aimed at providing operational flexibility and restoring a reliable and sustainable source of water during droughts. Droughts have been a regular occurrence in the State and in Southern California. The latest drought events lasted five years from 2012-17 and 2020-23 , according to the U.S. Drought Monitor. The Project is expected to take ~34 months to design and construct. The Project will be ready to advertise for construction bids by November 2024 and is expected to complete construction in November 2025. The Project will be shovel ready when the Bureau of Reclamation (Reclamation) grant agreement is processed.

Project Location

The Pressure Reducing Station No. 2 Relocation and Emergency Booster Pump Station Project is in the City of Santa Ana, which is in central Orange County, CA. The Project is located at 315 17th Street, Santa Ana, at latitude is 33°45'21.1"N and longitude is 117°51'38.8"W. Figure 1 below shows a project location map relative to the City of Santa Ana jurisdictional boundary and Figure 2 shows a project site map detailing the current and proposed relocation site.

Figure 1. Project Overview Map

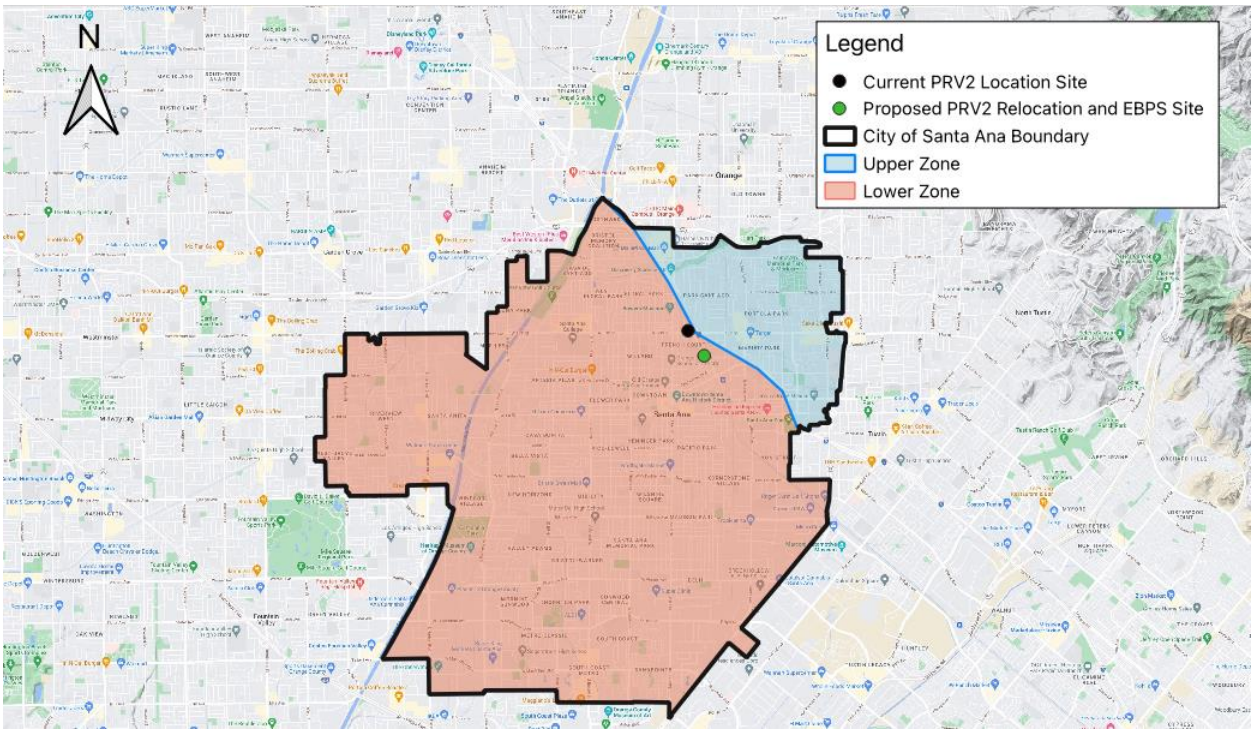


Figure 2. Project Site Map

Project Description

The City of Santa Ana's water service area is generally divided into the upper zone north of I-5 and the lower zone south of I-5. The upper zone has higher water pressures, which allows to supply water to the lower zone during low demand periods via four existing pressure reducing valves. However, per- and polyfluoroalkyl substances (PFAS) contamination has recently been detected in the upper zone's groundwater supply. To provide the upper zone with necessary water in case it loses its groundwater supplies, the City of Santa Ana will construct an emergency booster pump station (EBPS) and relocate its existing Pressure Reducing Station No. 2 (PRS2) to the same site as the new EBPS.

The City of Santa Ana has recently procured the property located at 315 E. 17th Street, where it plans to construct the improvements for the PRS2 and EBPS. The existing PRS2 is located approximately 500 feet to the east of this address in existing vault in the sidewalk on 17th Street. The relocation would place the new station above ground at the new site. PRS2 will continue to provide water from the upper zone to the lower zone during low demand periods when the water pressure in the upper zone allows for it. The Project will also construct a new EBPS that would

pressurize the upper zone (the area north of the 5 Freeway) and allow the transfer of water from the lower zone to the upper zone.

Under normal circumstances, the area of the City north of the 5 Freeway is considered the upper zone and is supplied with water from four wells, accounting for 20-22% of the City's water supply, and an MWD connection. If supply in the upper zone is down with no source of water, the Project will allow the City to pump water from the lower zone into the upper zone.

The major project components include the following.

Connection Pipeline: The new PRS2 and EBPS facility will require connection to the existing water transmission infrastructure. As per the Tetra Tech TM, the pipeline is recommended to be 16-inch ductile iron pipe and designed to meet all applicable American Water Works Association (AWWA) and the City of Santa Ana standards. The operating pressure, design pressure (max) and test pressure will be 100 psi, 150 psi, and 225 psi, respectively. The flow capacity will be 4,480 gpm (7,226 AFY). Pipeline construction will include two points of connection, one for the lower zone pipeline south of the proposed site and one for the upper zone pipeline adjacent to the existing PRS 2 location for a total of 470 linear feet (LF).

New Pressure Reducing Station and Emergency Booster Pump Station Facility: The new PRS2 and EBPS facility will be constructed as per Option 1.1 in the Tetra Tech TM. This layout provides the smallest footprint while still providing clearance around piping and equipment. The required pipe diameter lay length upstream of the vertical turbine pump can (5 pipe diameter clear per Hydraulic Institute Standards Figure 9.8.12). This layout also keeps the pressure reducing valve (PRV) assembly within the building, helping to reduce noise pollution to neighboring residents. The PRS and EBPS facility will be built as a 40'-0" x 30'-8" CMU block building; 11'-4" x 16'-0" electrical room with an AC unit; and 17'-4" x 16'-0" PRV room. The equipment housed and connected to the water transmission network within the building will include a 1) Pump (Flowserve: Horizontal Split Case 8LR-14A and Peerless: Vertical Turbine 14MD/LC), 2) Pressure Reducing Valves (Cla-Val Model 90-01 with Metering Package Model XP2F) and an Air Conditioning unit (Bard or approved equal).

The pump station will consist of three pumps, two duty and one standby pump, all operated on a variable frequency drive (VFD) for maximum efficiency. Each pump will be designed with the following parameters:

- Flow 2,240 gpm
- 125 hp motor; operated on VFD
- Total flow 4,480 gpm
- 155 feet of lift

Minor project construction components include:

- Mobilization, Demobilization and Clean-up
- Existing PRV abandonment
- Site demolition

- Site work, swing fate, chain link fencing, block wall, and AC pavement
- Electrical instrumentation equipment and facilities
- Permitting
- Disinfection, startup and testing
- Sheeting, shoring, and bracing

Performance Measures

The Project will enable the City to supply an additional 7,226 acre-feet per year (AFY) (4,480 gpm) as needed. This will be validated through the installation of a magnetic flow meter located within the new facility allowing the City to meter the amount of water transmitting through the facility. This will be connected to the City's SCADA system. The City's SCADA system measures the volume of water that flows through a given water transmission facility and stores the data to be retrieved by City personnel, if needed, for reporting purposes.

Evaluation Criteria

Evaluation Criterion A-Project Benefits (30 points)
Sub-criterion A1: Available Water Supplies and Water Better Managed

Sub-criterion A1b: Water Better Managed

- *How will the project build long-term resilience to drought? How many years will the project continue to provide benefits?*

The upper zone is currently supplied through four groundwater wells, and a MWD connection which provides imported water from the Sacramento – San Joaquin Delta (via the State Water Project or SWP) and the Colorado River (via the Colorado River Aqueduct or CRA). In the event of a loss of water supplies from the four groundwater wells and the MWD connection requiring water be pumped from the lower zone to the upper zone, the upper zone would not be able to receive enough water to satisfy demands with the two existing pump stations. This Project increases the City's water system operational flexibility by relocating the PVS2 and constructing a new EBPS, thereby allowing water to be transferred to where it is needed regardless of the location of the water source.

The four groundwater wells located in the upper zone of the City have been subject to Per- and polyfluoroalkyl substances (PFAS) contamination and have the potential to be subject to outages as these contaminants arise. The presence of PFAS was first documented in the Orange County Groundwater Basin (OC Basin) during the federal Environmental Protection Agency (EPA) Unregulated Contaminant Monitoring Rule 3 (UCMR3) program, which required monitoring for 30 contaminants between 2013 and 2015. Since then, the OCWD, which manages the OC Basin, has been routinely sampling water from wells in the OC Basin. Most recently, OCWD, in cooperation with the City of Santa Ana, completed a study titled "Producer Report - City of Santa Ana PFAS Treatment Systems Planning Study". The study identified which wells exceed the Department of Drinking Water PFAS concentration limits, analyzed alternatives for

treatment, and made a recommendation on the preferred alternative. **The study found that all wells within the upper zone are subject to PFAS contamination** and therefore subject to outages as these contaminants arise.

In addition to PFAS contaminants within the primary local water resource available to the upper zone, prolonged drought conditions have led to subsequent shortages in MWD supplied imported water available for the City. The extreme impacts of climate change on water availability have become clear in recent years. All scientific research, as well as actual drought patterns in recent years, indicate the frequency, severity and duration of droughts are increasing. The SWP and CRA provide a substantial source of water for many agencies in California. The water in the SWP originates in the snowpack in the Sierra Nevada Mountain range. The snowpack, which gradually melts in the spring and summer flows down rivers and aqueducts and into lakes and reservoirs around the state where the water gets treated for human use. However, the once reliable Sierra Nevada Mountains in Northern California with consistent rain and snow fall have recently experienced regular droughts. Although last year experienced high precipitation and the snowpack is higher than average, the City is pursuing water optimization strategies such as the Project to be proactive for the next prolonged drought period when it occurs.

The Colorado River, which originates in the Colorado Rocky Mountains has been a very consistent source of water for seven Western U.S. states and Mexico until recently. There has been a prolonged 21-year warming and drying trend that is pushing one of the nation's largest water supplies to record lows. Due to the low levels of water, in August 2021, the Federal Government has declared a Tier 1 water shortage in the Colorado River for the first time ever. This declaration means an actual reduction in the amounts of water that Arizona, Nevada and Mexico can claim from the river.

The last longest severe drought to affect California occurred between 2012-2017 with 2013-2014 having extraordinarily dry conditions. In the 2021 State Water Project Delivery Capability Report, the SWP member agencies could only receive up to 56% of their maximum allowable deliveries of water, which is a 2% decrease from the maximum allowable deliveries of water reported in the 2019 State Water Project Delivery Capability Report (58%).

The high demand for imported water supplies by member agencies and the variability in the availability of this resource makes it unreliable, especially during droughts. As mentioned above, the PFAS contamination in many of the City's wells makes the City more dependent on this vulnerable source. However, the Project will allow the City to distribute its potable water sources more reliably between the upper and lower zones, regardless of where the water enters the distribution system. This Project shifts the City towards a more reliable, local, and sustainable management of its water resources. This gives the City much more operational flexibility and enhances water management to enable the appropriate response during droughts. The Project has a 50-year life and is expected to last at least through the year 2075.

- *How will the project improve the management of water supplies? For example, will the project increase efficiency, increase operational flexibility, or facilitate water marketing*

(e.g., improve the ability to deliver water during drought or access other sources of supply)? If so: how will the project increase efficiency or operational flexibility?

The proposed Project will relocate the existing PRS2 and construct a new EBPS at the new site on 17th Street to increase the City's water supply distribution flexibility. The implementation of the Project will allow the City to transfer water through the new facility from the lower zone water sources to meet shortcomings in the upper zone's supplies and will allow the upper zone to deliver water to the lower zone should shortages occur. The PRS2 will allow water to be delivered from the upper zone to the lower zone through the implementation of pressure reducing valves to stabilize the system upon water entering the higher hydraulic gradient upper zone into the lower hydraulic gradient associated with the lower zone. Conversely, the EBPS will allow water from the lower zone to be delivered to the upper zone by implementing a booster pump station. This operational flexibility will allow the City to ensure water demands are met with growing concerns of PFAS groundwater contamination, prolonged drought conditions impacting imported water received from MWD, and other water supply limiting factors that have impacted the City in recent years.

- *What is the estimated quantity of water that will be better managed as a result of this project? How was this estimate calculated? Provide this quantity in acre-feet per year as the average annual benefit over ten years (e.g., if the project captures flood flows in wet years, provide the average benefit over ten years including dry years).*

The proposed Facility will have a pumping flow capacity of 4,480 gpm or **7,226 AFY** (22% of City's total 2020 supply) of drinking water, meaning 7,226 AFY will be able to be transferred between the upper zone and lower zone in the event of a loss of supply from either zone. Therefore, the average benefit over ten years is expected to be 72,260 AFY.

- *What percentage of the total water supply does the water better managed represent? How was this estimate calculated?*

In 2020, the City supplied a total of 33,489 AF of water. Therefore, the 7,226 AFY of water available to be transported between the upper and lower zones amounts to **22%** of the City's total water supply that is better managed to mitigate the impacts of water supply interruptions in either zone.

- *Provide a qualitative description of the degree/significance of anticipated water management benefits.*

The implementation of the Project will allow the City to transfer water through the new facility between the upper and lower zones to address any water supply shortages experienced in either zone. This increase in operational flexibility assists the City in addressing ongoing water shortages due to PFAS contamination within local groundwater wells and prolonged drought conditions limiting imported water deliveries from MWD. The recent discovery of PFAS contaminants within all wells located in the upper zone has prompted the City to shut down many wells as treatment projects need to be developed and implemented. This has led to a significant shortage in local water supplies which the City has had to compensate for by relying

on purchased imported water from MWD. However, imported water from MWD is received from the Delta and Colorado River via the SWP and CRA, respectively, both of which have been subject to shortages from ongoing drought conditions. The growing threat of losing local groundwater supplies and imported water supplies has prompted the City to pursue water management projects such as this Project to ensure all zones of the City's water system are able to receive water from other zones to avoid water supply outages. This Project will allow up to 7,226 AFY to be transferred between the upper zone and lower zone, depending on where the water shortage occurs meaning the City will have the ability to supply water most efficiently by having access to sustainable water within its service area.

- *Will the project make new information available to water managers? If so, what is that information and how will it improve water management?*

The entire water relocated by PRS2 and the new EBPS will be connected to the City's SCADA system which provides a real-time data distribution system including specific facilities. This will allow the City to have real-time information on how much water is being transported through the newly constructed facility which will be shared with City's water resources team. Other information that can be attained from the system is water pressure and flow rate. This will allow the City to make more informed decisions on accessing and distribution of its water supplies throughout the system.

Sub-criterion A2: Environmental & Other Benefits

Sub-criterion A2.a: Climate Change

Pursuant to E.O. 14008: Tackling the Climate Crisis at Home and Abroad, consider the degree to which the application demonstrates that the proposed project will contribute to climate change resilience and adaptation.

- *Does the proposed project include green or sustainable infrastructure to improve community climate resilience?*

The Project will bolster the City's climate resilience by improving drought resiliency. The upper zone is supplied by three groundwater wells and imported water received from MWD. As mentioned, PFAS contaminants were found in all wells located in the upper zone prompting shutdowns of the impacted wells until PFAS treatments are implemented. Additionally, scientific research validated by actual drought patterns in recent years has shown that climate change will have extreme impacts on water availability. These drought patterns indicate the frequency, severity and duration of droughts are increasing which jeopardizes the City's water supplies. The SWP and CRA provide a substantial source of water for many agencies in California but have been subject to shortages in recent years. The implementation of the Project will ensure that all hydraulic zones in the City can always receive potable water supplies, regardless of the location of the water source, which ultimately provides the City operational flexibility and drought resilience. Therefore, the Project can be classified as sustainable infrastructure improving the City of Santa Ana's community climate resilience.

- *Does the proposed project seek to reduce or mitigate climate pollutions such as air or water pollution?*

The Project will improve the City's water delivery operational flexibility by allowing the transfer of 7,226 AFY between the upper and lower zones. Currently, the upper zone is limited to receiving water from only local groundwater wells within the upper zone and a MWD imported water connection. Many of the City's groundwater wells have been impacted by PFAS contamination which has reduced the City's ability to utilize groundwater. This Project will allow the City to transfer water from other water sources, non-contaminated groundwater wells providing clean water supplies, located elsewhere in the City. Therefore, the Project mitigates water pollution by allowing the City to supply water to both the upper and lower zones from its clean water sources.

- *Does the proposed project contribute to climate change resiliency in other ways not described above?*

Climate change and its effects are clearly demonstrated in many aspects of our life and the environment around us. Preparing for and adapting to the changing climate is being done at all levels of government, as well as by private businesses and communities (ex. Solar power and drought tolerant vegetation). Access to high quality water is the most essential element for maintaining health and sanitation in a society. The Project is yet another component of the bigger effort being carried out and further advances society's work toward climate change resiliency.

Sub-criterion A2.c: Other Benefits

- *Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others?) Describe the associated sector benefits.*

The City of Santa Ana has a population of ~ 335,000 people that reside within its service area. The service area includes residential, commercial, industrial, institutional, recreational and agricultural customers with an overall total of over 45,000 connections. The Project will allow the City to provide continuous water supplies to all hydraulic zones within the City limits regardless of the location of the water source that will benefit all these users by ensuring water is available, especially during droughts and groundwater contamination.

- *Will the project benefit a larger initiative to address sustainability?*

The State of California has been planning for drought resiliency for many years. The latest initiative is Executive Order Number N-10-19 issued by Governor Gavin Newsom. Specifically, the initiative aims to develop resiliency to droughts and manage the state's water resources in a sustainable manner into the future. The action plan that builds upon the Governor's Executive Order is the California Water Resilience Portfolio dated July 2020. The Portfolio establishes policies and objectives to prepare the state for a water secure future. Three of the four objectives of the Portfolio are: 1) Maintain and diversify water supplies; 2) Protect and enhance natural ecosystems; and 3) Be prepared. The Project gives a reliable source of water to the City of Santa Ana, adding a substantial proportion of water to the City's supply. Therefore, the Project contributes to all three of the above objectives, furthering this larger initiative.

- *Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?*

Water is a precious commodity in naturally semi-arid southern California. Over the past 100 years, the "Lower Basin" states of the Colorado River Compact (which include Nevada, Arizona, and California) have long battled over water rights to the Colorado River.

Several agencies in Central Valley have started a lawsuit against the SWRCB in 2020 and DWR for curtailment of surface water and groundwater resources, respectively. Additionally, the Bureau of Reclamation declared a Tier 2 shortage for 2023 Colorado River allocations which prompted the Biden Administration to distribute the cuts across the upper and lower basin states. This plan could have potential litigation implications as states work to develop a shared planned detailing how water cuts will be implemented.

During drought times, when the water supply from the SWP and the Colorado River is at its lowest, agencies that do not have the flexibility to provide water from other sustainable water sources are likely to experience tensions and potential conflict amongst them. The City of Santa Ana's planning for increased water distribution flexibility, as exhibited by the implementation of this Project, aims to reduce reliance on critical water bodies and thus, reduce or eliminate such tensions and conflicts over water and the Project is a substantial part of the solution.

Evaluation Criterion B- Planning and Preparedness (20 points)
Drought Resiliency Projects Tasks A-C: *For purposes of evaluating this criterion, please address the following:*

- *Explain how the applicable plan addresses drought. Proposals that reference plans clearly intended to prepare for and address drought will receive more points under this criterion.*
    - *Does the drought plan contain drought focused elements (e.g., a system for monitoring drought, drought projections that consider climate change, identification of drought mitigation projects, drought response actions, and an operational and administrative framework)?*

The 2020 Urban Water Management Plan (UWMP) is the result of the latest comprehensive planning efforts carried out by the City of Santa Ana. The 2020 UWMP is a detailed document that evaluates water resources for the next 30 years. The Plan's projections for water supply and demand center around anticipated future droughts as evidenced by the recent change in climate patterns. The UWMP is supplemented by the City of Santa Ana's 2020 Water Shortage Contingency Plan (WSCP), which outlines a specific response to droughts and the Water Service Reliability and Drought Risk Assessment, which outlines the proactive measures to mitigate threats to the City's water supplies. The WSCP details water shortage action planning as it provides real-time water supply availability assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation has provided a roadmap to maintain reliable supplies and reduce the impacts of interruptions.

Section 7 of the UWMP contains a Water Service Reliability and Drought Risk Assessment (WSRDRA) which identifies threats to the City's water supplies and provides proactive steps to

mitigate threats to the City's water supply. Specifically, it provides an overview of the City's water service reliability, factors that affect the City's water service reliability (such as climate change, regulatory restrictions, water quality issues, and others), and drought management tools that address the identified factors. This section of the UWMP provides an overview of the actual and potential threats to the City's water supplies and how those threats can be mitigated against, which water supply flexibility is identified as a proactive solution.

The WSCP, Section 8 of the 2020 UWMP, provides tangible steps for the reactive measures the City will take in the event of a water shortage. Specifically, it identifies six distinct stages of water shortage levels and bases concrete steps for implementation to respond to each stage on adequate details of demand reduction and supply augmentation measures that are structured to match varying degrees of shortages. The WSCP provides the steps and water shortage response actions to be taken in times of water shortage conditions. The WSCP has prescriptive elements, such as an analysis of water supply reliability; the water shortage response actions for each of the six standard water shortage levels that correspond to water shortage percentages ranging from 10% to greater than 50%; an estimate of potential to close supply gaps for each measure; protocols and procedures to communicate identified actions for any current or predicted water shortage conditions; procedures for an annual assessment; monitoring and reporting requirements to determine customer compliance; and reevaluation and improvement procedures for evaluating the WSCP.

- *Describe how the drought plan includes consideration of climate change impacts to water resources or drought.*

Section 7 of the WSRDRA also contains a section (Section 7.2) that identifies factors that affect water supply reliability. The first and most influential water supply reliability factor identified in this section is Climate Change and the Environment (Section 7.2.1). This section states that "Changing climate patterns are expected to shift precipitation patters and affect water supply availability." This can be and has been experienced through reductions in Sierra Nevada Mountain snowpack (prior to 2023), increased intensity and frequency of extreme weather events, prolonged drought periods, and other environmental impacts to the City's water supplies.

- *When was the plan developed and how often is it updated?*

The 2020 UWMP and subsections (WSCP and WSRDRA), were developed and adopted in 2020. The UWMP, WSCP, and WSDRA are required to be updated every five (5) years as specified under the California Urban Water Management Planning Act.

- *Was the plan developed through a collaborative process? Describe who was involved in preparing the plan and whether the plan was prepared with input from stakeholders with diverse interests (e.g., water, land, or forest management interests; and agricultural, municipal, Tribal, environmental, and recreation uses)? Describe the process used for interested stakeholders to provide input during the development of the plan.*

The City, as a retail water supplier, coordinated the UWMP and WSCP preparation efforts with other key entities, including MWD, (regional wholesale supplier for Orange County), and

OCWD (OC Basin manager and provider of recycled water in northern Orange County). The development of the plans also consulted multiple planning documents issued by the other water partners. The UWMP underwent a public comment period which incorporates stakeholder input, such as residents and businesses within the City of Santa Ana.

- *Describe how your proposed drought resiliency project is supported by an existing drought plan.*
    - *Does the drought plan identify the proposed project as a potential mitigation or response action? How is the proposed project prioritized in the drought plan?*

Yes, Section 7.4 of the 2020 UWMP identifies drought management tools and actions that can be implemented to mitigate drought impacts. The top actions identified include reducing reliance on imported water from the SWP/CRA and continuing to use and increase local groundwater production. The upper zone relies heavily on groundwater wells located in the uppers zone and imported water from MWD. With the discovery of PFAS contaminants in all the upper zone wells, the reliance on imported water from MWD has increased in the upper zone making the upper zone of the City more susceptible to drought impacts. This Project will allow the City to transfer water from the lower zone groundwater wells to the upper zone which provides the upper zone with a water supply that is not sourced from the environmentally sensitive and drought-prone Delta. This means the Project is a top priority within the City's 2020 UWMP.

    - *Does the proposed project implement a goal or need identified in the drought plan? Is the supported goal or need prioritized within the plan?*

Yes, as mentioned in the previous response, the Project addresses the first goal within Section 7.4 of the UWMP by decreasing the City's upper zone reliance on water imported from the SWP /CRA.

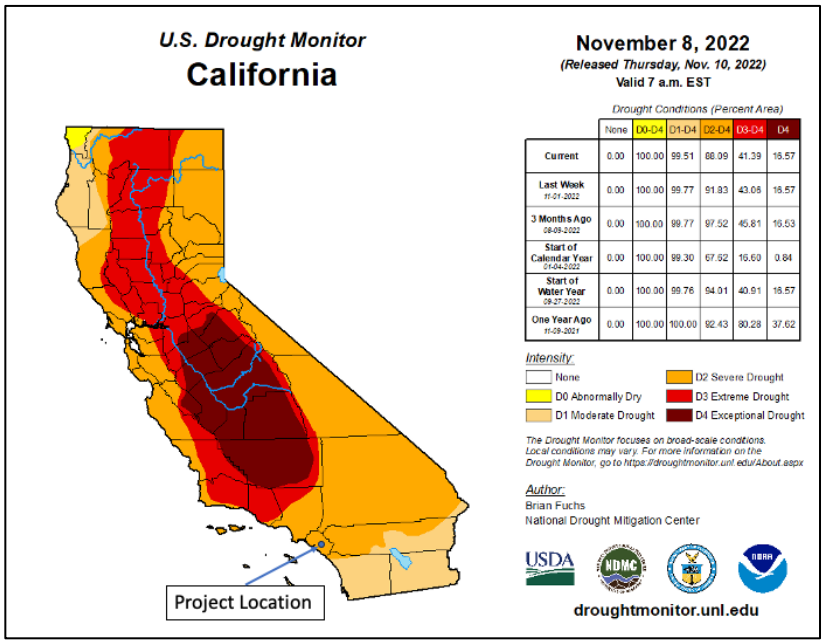
- *Attach the relevant sections of the plan that are references in the application, as an appendix to your application. These pages will be included in the total 125-page count for the application.*

See attached Sections 7 and 8 in Appendix C and D for the WSRDRA and WSCP.

Evaluation Criterion C-Severity of Actual or Potential Drought or Water Scarcity Impacts to be addressed by the Project (15 points)
Describe the severity of the impacts that will be addressed by the project:

- *Describe recent, existing, or potential drought or water scarcity conditions in the project area.*
    - *Is the project in an area that is currently suffering from drought, or which has recently suffered from drought or water scarcity? Please describe existing conditions, including when and the period of time that the area has experienced drought or water scarcity conditions.*

Figure 3. U.S. Drought Monitor Map - California (11/8/2022)



Prior to the 2023 wet season, Orange County, where the City of Santa Ana is located, experienced a Category D2 – Severe Drought status. Please see Figure 3 below for a map of the U.S. Drought Monitor from 11/8/2022. The most recent drought began in January 2020 with a low precipitation rainy season and worsened over the next couple of years to the Category D2 – Severe Drought designation for the region in 2022.

In addition to the most recent drought, the last drought was only a few years prior between 2012 and 2017. The years 2012 to 2015 marked the driest four-year period in 120 years of historical records in California, along with historic high temperatures (California Department of Water Resources, 2015). The U.S. Drought Monitor (www.drought.gov) indicates that the longest duration of drought (D1-D4) in California (since 2000) lasted 376 weeks beginning on December 27, 2011, and ended on March 5, 2019. The most intense period of drought was in July 2014 where D4 status affected 58% of California land. Additionally, between 1976 and 2021, California's population has almost doubled, from 22 million to 40 million, increasing pressure and demand on limited existing resources.

- *Describe any projected increases to the severity or duration of drought or water scarcity in the project area resulting from changes to water supply availability and climate change. Provide support for your response (e.g., reference a recent climate informed analysis, if available).*

Prior to the 2023 wet season, the entire western United States was in one of the categories of drought. Approximately 46% of California was classified as experiencing Exceptional Drought conditions. Although the 2023 wet season brought record setting precipitation and snowpack levels which lifted the City out of current drought conditions, climate scientists predicts that precipitation in the western United States will occur in shorter durations, but more intense when it occurs. This is exhibited by the 2023 wet season which had high intensity rain events, but

receiving adequate precipitation and snowfall is always an uncertainty in the Western U.S. In fact, scientists predict that prolonged drought periods will continue to plague the Western U.S. as the impacts of climate change intensify. Therefore, water sustainability projects that bolster the water management agencies' drought resiliency are critical to ensure an uninterrupted water supply.

- *What are the ongoing or potential drought or water scarcity impacts to specific sectors in the project area if no action is taken (e.g., impacts to agriculture, environment, hydropower, recreation, tourism, forestry, etc.), and how severe are those impacts? Impacts should be quantified and documented to the extent possible. For example, impacts could include, but are not limited to:*

According to the U.S. Drought Monitor, the City experienced a Category D2 – Severe Drought until 11/8/2022. The previous drought gripped all of California with many parts designated at the highest level of Category D4 – Exceptional Drought, including the Sierra Nevada region where 30% of the state's water supplies originate. The last drought in the state was only a few years ago and took place between 2012 and 2017. Water forms the basis for many aspects of life such as drinking, cooking, hygiene, irrigation for agriculture, industry, and many other functions.

During the 2014 drought was one of the driest time periods on record, where Category D4 drought conditions affected 58% of California land. California went through another abnormally dry period. Temperatures in various part of the state have been at least 15 degrees above average since June 2020.

The recent severe drought in California has put tremendous pressure on the State's water allocation systems and shown that they are simply not capable of adapting to a sustained drought cycle. Statewide droughts have severely impacted both local water supplies as well as imported supplies from the Colorado River and northern California, from which the City of Santa Ana currently relies on for 23% of its water supply.

The California drought has had a devastating impact on all aspects of the state. The **economic** impact of the drought to agriculture in California was an estimated **$2.7 billion and 21,000 total job losses in 2015 alone**. The loss of **hydropower** between October 2011 and October 2014 cost Californians **$1.4 billion**, as hydropower in the state was roughly cut in half. This lost hydropower was made up with the purchase and combustion of additional natural gas. The electricity ratepayers spent an additional **$1.7 billion** to purchase natural gas over the drought period, which resulted in an additional **13 million tons of CO2 emitted into the air** — about a 10 percent increase in total annual CO2 emissions from California power plants, thus having a detrimental impact on the state's air quality.

The California drought severely affected **forestry and the wildlife** that inhabit that environment. Of the 85 million acres in California classified as wildlands, nearly 17 million are commercial forest land, approximately half of which are owned by the government. New research using high-tech tools to measure the moisture in trees found that 120 million trees across nearly every part of California are at risk of dying. The California Department of Forestry and Fire Protection (CAL FIRE) reported **29 million confirmed dead trees**. Governor Jerry Brown had issued a

state of emergency in California because trees are dying, creating more fuel for wildfires. CAL FIRE has determined that trees and vegetation play an important role in the vitality of California urban communities, affecting **property values, energy consumption, air quality, noise pollution, and wildlife**.

The drought has severely impacted the City of Santa Ana's imported water supplies from the SWP and increased reliance on local groundwater which many are subject to PFAS contaminants. Drought resiliency for the City can be best provided by becoming less reliant upon imported water and improving operational flexibility. By increasing its water supply distribution flexibility and allowing groundwater from the lower zone be distributed to the upper zone, the Project will substantially contribute to the goal of water supply reliability and sustainability. Without the Project, the City of Santa Ana will continue to contribute to the demands on the limited and vulnerable supply of imported water that has already been severely compromised.

- *Whether there are public health concerns or social concerns associated with current or potential conditions (e.g., water quality concerns including past or potential violations of drinking water standards, increased risk of wildfire, or past or potential shortages of drinking water supplies? Does the community have another water source available to them if their water service is interrupted?).*

According to the Centers for Disease Control and Prevention (CDC), severe drought conditions can negatively affect **air quality**. During droughts, there is an increased risk for wildfires and dust storms. Particulate matter suspended in the air from these events can irritate the bronchial passages and lungs. This can make chronic respiratory illnesses worse and increase the risk for respiratory infections like bronchitis and pneumonia. Some drought-related health effects are experienced in the short-term and can be directly observed and measured. However, the slow rise or chronic nature of drought can result in longer term, indirect health implications that are not always easy to anticipate or monitor.

The public health and social concerns associated with drought conditions include the following: 1) Compromised quantity and quality of drinking water, 2) Increased recreational risks, 3) Effects on air quality, 4) Diminished living conditions related to energy, air quality, and sanitation and hygiene, 5) Compromised food and nutrition, and 6) Increased incidence of illness and disease.

The water supply from the SWP/CRA is the most vulnerable because of the high demand and the ongoing drought and the potential for more severe and recurring droughts brought on by climate change. Local supply of groundwater that is reliable, sustainable, and that can be transmitted freely without infrastructure limitations provides the best alternative in case water supplies from the SWP/CRA are interrupted, which the Project helps to achieve.

- *Whether there are ongoing or potential environmental impacts (e.g., impacts to endangered, threatened or candidate species or habitat).*

The Sacramento – San Joaquin River Delta, where SWP water is diverted for human use, is a very complex and ecologically sensitive habitat for several endangered species. Reduction of

reliance on SWP water during droughts directly benefits the endangered species in the Delta which this project could achieve.

- *Whether there are local or economic losses associated with current water conditions that are ongoing, occurred in the past, or could occur in the future (e.g., business, agriculture, reduced real estate values).*

In 2015, the drought in California cost the state's economy **$2.7 billion and nearly 21,000 jobs** according to a study from the University of California-Davis. During the recent drought, the state issued mandatory water restrictions. The water rationing measures imposed by the state ironically made the per-unit cost of water higher since the "fixed costs" of the pipes and pumps did not change, but the amount of water sold went down. In order for water districts to recover their costs, they needed to charge the ratepayers more per unit for water.

The City of Santa Ana is home to several industries and manufacturing companies in addition to many small businesses. These industries and businesses rely on the water supply to manage their businesses and provide their products and services. An interruption of the water supply has a substantial impact on these industries that in turn maintain the economic growth in the City.

- *Whether there are other water-related impacts not identified above (e.g., tensions over water that could result in a water-related crisis or conflict).*

Water is a precious commodity in naturally semi-arid southern California. Over the past 100 years, the "Lower Basin" states of the Colorado River Compact (which include Nevada, Arizona, and California) have long battled over water rights to the Colorado River. A prime example of these tensions were the conflicts between the city of Los Angeles and the farmers and ranchers in the Owens Valley of Eastern California. Since 1913, the Owens River had been diverted to Los Angeles, causing a severe decline in the valley's economy. So much water was being diverted from the Owens Valley that the farmers tried to destroy the aqueduct in 1924. Tensions continued, and as late as 1979, they sued the Los Angeles Department of Water and Power (LADWP) over its excessive water diversion from Mono Lake. As water becomes more scarce tensions such as these are expected to escalate. Most recently several agencies in Central Valley have started a lawsuit against the SWRCB for curtailment of surface water.

During drought times, when the water supply from the SWP and the CRA is at its lowest, agencies that do not have sufficient locally produced, sustainable water are likely to experience tensions and potential conflict amongst them. The City of Santa Ana's planning for alternative water sources and flexible transmission of those water sources aims to reduce or eliminate such tensions and conflicts over water and the Project is a substantial part of the solution.

Evaluation Criterion D-Presidential and DOI Priorities (15 points)
Sub-criterion E.1. Disadvantaged or Underserved Communities

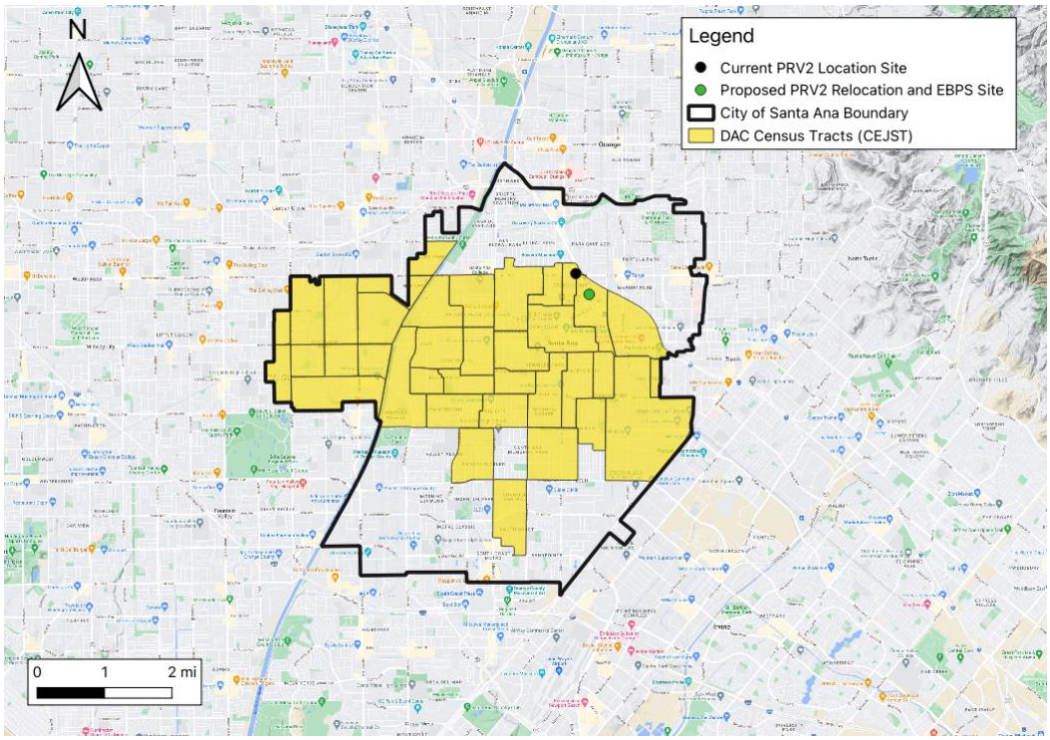
Points will be awarded based on the extent to which the project directly serves disadvantaged or underserved communities.

E.O. 14008 and E.O. 13985 affirm the advancement of environmental justice and equity for all through the development and funding of programs to invest in disadvantaged or underserved communities. For the purposes of this criterion, Tribes and insular areas (American Samoa, Guam, the Northern Mariana Islands, or the Virgin Islands) are considered disadvantaged.

- *If applicable, describe how the proposed project will serve or benefit a disadvantaged or underserved community, identified using the tool described above. For example, will the project improve public health and safety by addressing water quality, add new water supplies, provide economic growth opportunities, or provide other benefits in a disadvantages or underserved community?*

As per the Climate & Economic Justice Screening Tool, the City of Santa Ana is comprised primarily of DACs with a total population of 267,533 (~80% of the City's total population). The Project will be implemented directly within a DAC; however, the Project will ultimately benefit the City's entire water service area. The Project will improve the operational flexibility of water distributions throughout the City by allowing water to be transferred between the upper and lower zones regardless of the water source location along the City's hydraulic gradient. This will bolster the entire City's drought resiliency which will in turn benefit the DACs which comprise 80% of the City's population.

Figure 4. City of Santa Ana DAC Map (CEJST)



Evaluation Criterion E-Readiness to Proceed and Project Implementation (10 points)

- *Describe the implementation plan of the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: design, environmental and cultural resources compliance, permitting, construction/installation.*

Technical Memos have been completed for identifying the preliminary site and detailing the technical recommended project components (Appendix A and B). The memos also contain preliminary Project design plans, which makes the Project ready for final engineering drawings. The design is expected to commence by January 2023 and will be completed by June 2024. Therefore, the Project will be shovel ready and construction of the Project is targeted to begin upon entering into a financial assistance agreement for this grant request Table below provides a preliminary schedule for the Project.

Table 1. Project Schedule

Estimated Project Schedule			
No.	Task/Milestone	Start Date	Completion Date
1	Plans, Specifications, permits and Estimate	Jan. 2023	Oct. 2024
2	NEPA & CEQA Environmental Documentation	Sep. 2024	Dec. 2024
3	Advertise the Project to receive construction bids and award the contract to the lowest responsible and responsive bidder	Jan. 2025	Apr. 2025
4	Construction	Apr. 2025	Aug. 2026
5	Construction & grant close out	Aug. 2026	Oct. 2026

- *Describe any permits or approvals that will be required (e.g., water rights, water quality, stormwater, or other regulatory clearances). Include information on permits or approvals already obtained. For those permits and approvals that need to be obtained, describe the process, including estimated timelines for obtaining such permits and approvals.*

  All proposed work shall comply with all local, state, and federal requirements. The anticipated permits and approvals include the following:

Table 2. Project Permits

Anticipated Permits	Process for Approval or Issuance
City of Santa Ana Public Works approval of plans and specifications	Plans and Specifications to be reviewed by City engineering staff and approved by the Director of Public Works/City Engineer
City of Santa Ana Building Department to issue appropriate building permits	Plans and Specifications to be reviewed and approved by City Building Department staff and issue appropriate building permits
City's public bid process for lowest responsible bidder	Compliance with State of California Public Contracts Code
Southern California Edison (SCE) permit for electrical service	City to apply for issuance by SCE.
State Water Resources Control Board approval for storm water and test pumping discharge	City to apply for issuance by SWRCB.
Encroachment permit – California Department of Transportation (Caltrans)	City to apply for issuance by Caltrans.

- *Identify and describe any engineering or design work performed specifically in support of the proposed project.*

Technical Memos have been completed for identifying the preliminary site and detailing the recommended project components (Appendix A and B).

- *Describe any land purchases that must occur before the project can be implemented.*

The City of Santa Ana has acquired all required land for the proposed Project.

- *Describe any new policies or administrative actions required to implement the project.*

There are no new polices or policy amendments that need to take place to implement the Project. On the administrative side, the above indicated permits need to be issued. In addition, the City of Santa Ana City Council will take formal action to award a construction contract to the lowest, responsible and responsive bidder.

Evaluation Criterion F-Nexus to Reclamation (5 points)

- *Does the applicant have a water service, repayment, or O&M contract with Reclamation?*

No.

- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?* No.

The City of Santa Ana receives 23% of its water through Metropolitan Water District of Southern California, which is a designated Reclamation contractor for the Colorado River and the SWP. The Project will produce 4,000 AFY of local water, which will offset demand from the

Colorado River and SWP/CRA by the same amount. The Bureau of Reclamation has general oversight over water resources in the Delta including coordinated operations with the SWP. In 1986, the California Department of Water Resources and Reclamation signed the Coordinated Operation Agreement (COA) for management of the Central Valley Project and the SWP. The agreement was amended in December 2018 to update operational criteria for the projects.

- *Will the proposed work benefit a Reclamation project area or activity?*

The Project will benefit Reclamation by improving operational efficiency and access to local water supplies which could ultimately reduce reliance on surface water from the Colorado River and the SWP.

- *Is the applicant a Tribe?* No.

Evaluation Criterion G-Stakeholder Support for Proposed Project (5 points)

- *Describe the level of stakeholder support for the proposed project. Are letters of support from stakeholders provided? Are any stakeholders providing support for the project through cost-share contributions or through other types of contributions to the project? Explain whether the project is supported by a diverse set of stakeholders, as appropriate, given the types of interested stakeholders within the project area and the scale, type, and complexity of the proposed project. For example, is the project supported by entities representing agricultural, municipal, Tribal, environmental, or recreation uses?*

The stakeholders within the City's water system include residential, commercial, industrial, institutional, recreational and agricultural customers.

SECTION 2: PROJECT BUDGET

Funding Plan and Letters of Commitment

Describe how the non-Federal share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability.

The City of Santa Ana has allocated the matching funds required for the Project to be carried to completion. The sources of the cost share are from the City's Water Enterprise Fund.

As shown by the City of Santa Ana City Council resolution, the City is committed to providing the remaining matching fund to complete the Project effective immediately.

Commitment letters from third-party funding sources should be submitted with your application. If commitment letters are not available at the time of the application submission, please provide a timeline for submission of all commitment letters. Cost-share funding from sources outside the applicant's organization (e.g., loans or State grants), should be secured and available to the applicant prior to award.

The City of Santa Ana will be providing the matching funds from its Water Enterprise Fund. Therefore, no third-party funding is included.

In addition, please identify whether the budget proposal includes any project costs that have been or may be incurred prior to award.

The City of Santa is not requesting costs that were expended prior to award.

Table 3. Non-Federal and Federal Funding Sources Summary

FUNDING SOURCES	AMOUNT	Percentage
Non-Federal Entities		
City of Santa Ana	$1,801,250	50%
Non-Federal Subtotal	$1,801,250	50%
REQUESTED RECLAMATION FUNDING	**$1,801,250**	**50%**

Budget Proposal

Table 4. Project Budget Proposal

BUDGET ITEM DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	$/Unit	Quantity		
Salaries and Wages				**$ -**
N/A				
Fringe Benefits				**$ -**
N/A				
Travel				**$ -**
N/A				
Equipment				**$ -**
Included under Contractual/Construction				
Supplies/Materials				**$ -**
N/A				
Contractual/Construction				**$ 3,592,500**
Professional Services				
Design and Environmental Process (20% of Construction Costs)	$ 477,000	1	LS	$ 477,000
Construction MGMT (10% of Construction Costs)	$ 238,500	1	LS	$ 238,500
Construction				
Mobilization, Demobilization, and Cleanup	$ 100,000	1	LS	$ 100,000
Pipeline Construction	$ 370,000	1	LS	$ 370,000
Existing PRV Abandonment	$ 30,000	1	LS	$ 30,000
Site Demolition	$ 50,000	1	LS	$ 50,000
Pump Station and Building Construction	$ 1,150,000	1	LS	$ 1,150,000
Site Work, Swing Gate, Chain Link Fence, Block Wall, & AC Pavement	$ 180,000	1	LS	$ 180,000
Electrical and Instrumentation Equipment and Facilities	$ 450,000	1	LS	$ 450,000
Caltrans Permitting	$ 20,000	1	LS	$ 20,000
Disinfection, Startup and Testing	$ 20,000	1	LS	$ 20,000
Sheeting, Shoring, and Testing	$ 15,000	1	LS	$ 15,000
Operation and Maintenance Manuals	$ 5,000	1	LS	$ 5,000
Prepare and Maintain Record Drawings	$ 10,000	1	LS	$ 10,000
Contingency (20%)	$ 477,000	1	LS	$ 477,000
Environmental				**$ 10,000**
BOR Environmental Review	$ 10,000	1	LS	$ 10,000
Other				$ -
N/A				
TOTAL DIRECT COSTS				**$ 3,602,500**
Indirect Costs				**$ -**
N/A				$ -
TOTAL ESTIMATED PROJECT COSTS				**$ 3,602,500**

Budget Narrative

Salaries and Wages

The City of Santa will assign a Project Manager for the Project. The Project Manager will oversee the project design and construction until completion. However, the City is not seeking any reimbursement of internal staff time nor associated salaries and wages.

Fringe Benefits

The City is not seeking any reimbursement of internal staff time nor associated fringe benefits.

Travel

Not applicable.

Equipment

Equipment for the Project will be included in the construction contract.

Materials and Supplies

Similar to above, materials and supplies for the Project will be part of the construction contract.

Contractual

Through a competitive bid process in compliance with all applicable state and federal requirements, a qualified Contractor will be selected to construct the Project. The construction contract will include all relevant equipment, supplies and materials, construction, labor, and management needed to construct the project (as detailed in Table 2).

Third-Party In-Kind Contributions

Not applicable.

Environmental and Regulatory Compliance Costs

The cost to prepare the environmental documents will be part of the design component of the Project. All costs that will be incurred in acquiring permits and any required mitigation measures will be borne by the contractor as shown in Table 2 above.

Other Expenses

All Project costs are captured in Table 2 above.

Indirect Costs

None.

SECTION 3: ENVIRONMENTAL AND CULTURAL RESOURCES AND COMPLIANCE

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to:

- *Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? 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.*

The Project will include construction of a new Pressure Reducing Station and Emergency Booster Pump Station. All facilities will be located above ground and no excavation is anticipated at this time. There is expected to be no impacts to air, water, or animal habitats in the project area. The City will work to prepare an Initial Study/Mitigated Negative Declaration report to identify all required mitigation activities to ensure minimal disturbance to the surrounding environment.

- *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, would they be affected by any activities associated with the proposed project?*

No, the City is not 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.

- *Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have.*

No, there are no wetlands or other surface waters inside the project boundaries that would be under CWA jurisdiction.

- *When was the water delivery system constructed?*

The majority of the City's water delivery system was constructed in the mid 1900's.

- *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.*

The Project will not result in any modification of individual features of an irrigation system.

- *Are 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.*

There are no buildings, structures, or features in the Project area that are listed or eligible for listing on the National Register of Historic Places within this project area.

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

There are no known archeological sites in the Project area.

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

The Project will not have a negative or adverse effect on low income or minority populations.

- *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?*

The Project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species.

SECTION 4: REQUIRED PERMITS OR APPROVALS

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

Note that improvements to Federal facilities that are implemented through any project awarded funding through this NOFO must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see P.L. 111-11, Section 9504(a)(3)(D). Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 CFR Section 429, and that the development will not impact or impair project operations or efficiency.

All proposed work shall comply with all local, state, and federal requirements. The anticipated permits and approvals include the following:

Table 5. Required Permits

Anticipated Permits	Process for Approval or Issuance
City of Santa Ana Public Works Department approval of plans and specifications	Plans and Specifications to be reviewed by City engineering staff and approved by the Director of Public Works/City Engineer
City of Santa Ana Building Department to issue appropriate building permits	Plans and Specifications to be reviewed and approved by City Building Department staff and issue appropriate building permits
City's public bid process for lowest responsible bidder	Compliance with State of California Public Contracts Code
Southern California Edison (SCE) permit for electrical service	City to apply for issuance by SCE.
State Water Resources Control Board approval for storm water and test pumping discharge	City to apply for issuance by SWRCB.
Encroachment permit – California Department of Transportation (Caltrans)	City to apply for issuance by Caltrans.

SECTION 5: EXISTING DROUGHT CONTINGENCY PLAN

The City of Santa Ana's 2020 Water Shortage Contingency Plan (WSCP) is attached as Appendix D.

SECTION 6: LETTERS OF SUPPORT AND LETTERS OF PARTNERSHIP

The City requested letters of support from the Metropolitan Water District Orange County (MWDOC), Orange County Water District (OCWD), and the City of Santa Ana Mayor's office. The City has received letters of support from these organizations for previous Reclamation grant pursuits but was not able to receive them given the quick turnaround for this application.