New Flower St. Well

WaterSMART DROUGHT RESPONSE PROGRAM

Drought Resiliency Project Grant for FY2021

BOR-DO-20-F002- FG II

August 5th, 2020

Prepared For:
Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Matthew Reichert
mreichert@usbr.gov
Denver Federal Center
Bldg. 67, Rm. 152
6th Avenue and Kipling Street
Denver, CO 80225

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
Table of Contents

SECTION 1: TECHNICAL PROPOSAL ................................................................. 1
  A. Executive Summary .............................................................................. 1
  B. Project Location .................................................................................. 1
  C. Technical Project Description ............................................................. 3
  D. Performance Measures ......................................................................... 3
  E. Evaluation Criteria ................................................................................ 4
    E.1 Evaluation Criterion A — Project Benefits .......................................... 4
    E.1.2. Evaluation Criterion B — Drought Planning and Preparedness ............ 10
    E.1.3. Evaluation Criterion C — Severity of Actual or Potential Drought Impacts Addressed by the Project ................................................................................. 11
    E.1.4. Evaluation Criterion D — Project Implementation .............................. 16
    E.1.5. Evaluation Criterion E — Nexus to Reclamation ............................... 18
    E.1.5. Evaluation Criterion F — Department of the Interior (DOI) and Bureau of Reclamation Priorities ........................................................................................................... 19

SECTION 2: PROJECT BUDGET ................................................................. 21
  Standard Form 424 Budget Information A or C ........................................ 21
    A. Funding Plan and Letters of Commitment ............................................ 21
    B. Budget Proposal .................................................................................. 21
    C. Budget Narrative ................................................................................ 23

SECTION 3: ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE .... 24

SECTION 4: REQUIRED PERMITS OR APPROVALS ........................................... 26

SECTION 5: EXISTING DROUGHT CONTINGENCY PLAN ................................. 27

SECTION 6: OFFICIAL RESOLUTION ............................................................ 28
  Appendix 1: Fully Executed Resolution Adopted on July 21, 2020 ............... 29
  Appendix 2: Copy of SAM Proof of Enrollment .......................................... 32
  Appendix 3: Santa Ana Drought Action Plan ............................................ 33
  Appendix 4: Drought Contingency Plan .................................................... 38
  Appendix 5: City of Santa Ana Active Groundwater Wells Summary ............. 47
Table of Figures

Figure 1. Project Location Map ................................................................. 2
Figure 2. Project Location (Site Specific Map) ............................................. 2
Figure 3. City of Santa Ana Well Locations Map ........................................ 9
Figure 4. Orange County Water District Aquifers ...................................... 10

Table of Tables

Table 1: City of Santa Ana 5-year Water Supply Comparison ..................... 5
Table 2: Estimated Project Schedule ........................................................... 17
Table 3: Anticipated Permits and Processes for Approval .......................... 17
Table 4: Total Project Costs by Source ....................................................... 21
Table 5: Funding Sources ........................................................................ 21
Table 6: Budget Proposal Funding ............................................................. 22
SECTION 1: TECHNICAL PROPOSAL

A. Executive Summary

**Date:** August 5, 2020  
**Applicant:** City of Santa Ana  
**City/County/State:** Santa Ana/Orange/CA  
**Located on a Federal Facility:** No  
**Project Length of Time:** 36 Months  
**Estimated Completion Date:** June 2023

**Executive Summary:**
The proposed Flower St. Well project offers a local supply to help to build long term resilience and close the projected gap between future demand and available supply, consistent with both City of Santa Ana (the City) and Metropolitan Water District (MWD) drought management policies. In compliance with City’s goals for improving drought resiliency by reducing City’s reliance on imported water; the project proposes to use funding to offset the costs for the construction of the new Flower St. Well. The proposed project will augment the low pressures identified in the water system analysis by pumping groundwater into the City’s existing water distribution system at a strategic location. Implementation of this project will reduce City’s reliance on imported water by over 4,032 acre-feet per year (AFY). The new Flower St. Well Project will help to **build long-term resilience to drought and reduce the need for emergency response actions**, while offering the following benefits:

- **Make additional water supplies available** by adding over 4,032 AFY to the City’s pumping capacity
- **Improve water management** by enhancing system flexibility
- **Benefit fish, wildlife and the environment** by making the City less reliant on imported water, 4,032 AFY

B. Project Location

The Flower St. Well will be located on property owned by the City of Santa Ana at the address 202 S. Flower St. Santa Ana, CA, 92703. (latitude 33°44'39.7"N and 111°52'36.0"W longitude). A regional map of the Project’s location can be viewed in **Figure 1** and focused map of the well location is included in **Figure 2**.
Figure 1. Project Location Map

Figure 2. Project Location (Site Specific Map)
C. Technical Project Description

Similar to the City’s other wells, the Flower St. Well is proposed to be drilled to a depth of about 1,300 feet below ground surface and be installed with minimum of an 18-inch diameter casing. The design capacity of the well will be about 2,500 gpm (4,032 AFY) well pump flow range; It is estimated that the well pump will be driven by a 350 to 400 HP electric motor and the design head of about 400 to 450 feet. Construction will include the City’s typical well to system mechanical piping layout, electrical equipment (e.g. include switchgear, control panels, variable frequency drive, telemetry, lighting, programming, etc.) and well discharge to waste piping for use during well testing and start up.

The water produced from the proposed well will be disinfected using sodium hypochlorite (NaOCL) before it is discharged into the water distribution system. The City has standardized the utilization of On-Site Generation (OSG) at all of their well sites to produce a 0.8% solution of sodium hypochlorite for disinfection using salt, softened water and electricity. Additionally, the system components include a water softener, bulk storage tanks for salt and NaOCL solution, metering pumps, a brine saturator, an electrolytic cell, and an electric rectifier.

The proposed well building will accommodate housing the well head and piping, electrical cabinets and Southern California Edison (SCE) switchgear. It will have reinforced, solid-grouted concrete masonry walls, a shallow concrete foundation, a concrete floor slab-on-grade, and a gable roof structure. The masonry walls will provide a high level of security, sound attenuation, durability and strength. The exterior surface of the masonry walls will be colored, textured, scored, and/or fluted to create an appearance that will complement the surrounding structures.

The proposed new Flower St. Well Project also includes City’s required Community Outreach effort within the neighborhood to encourage unity within the surrounding neighborhood.

D. Performance Measures

The proposed project offers significant specific performance measures that will quantify the benefits of the project once implemented. In doing so, the relative efficiency of the water management effort can be evaluated. These performance measures are as follows:

1. **Pumping capacity.** Construction of the Flower St. Well is expected to increase the City’s pumping capacity by approximately 4,032 AFY less import required on an annual basis.

2. **Cost savings.** The expected cost savings of implementing Flower St. Well to service with the capacity of 4,032 AFY would not have to be imported. The difference in cost between pumped and import water is at least $570 per AF. The cost savings for the proposed project is significant and easily quantifiable through this performance measure.

3. **Pressure Augmentation/Stabilization:** Supervisory Control and Data Acquisition (SCADA) equipment will monitor system pressure at various locations in the vicinity of the Flower St. Well. This data will be compared with historical system pressure data to
determine the effectiveness of the Flower St. Well in improving the historic low system pressure in the vicinity.

E. Evaluation Criteria

E.1 Evaluation Criterion A — Project Benefits

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

Currently the City acquires approximately 27% of its water supply from MWD imported water connections that receive water from the Colorado River and the State Water Project (SWP) from northern California, which are directly influenced by climate conditions in northern California and the Colorado River Basin, respectively. Both regions have been suffering from multi-year drought conditions which directly impact water supplies to southern California. The City’s ability to pump from Flower St. Well will reduce the City’s dependence on the drought-stricken states’ limited water supplies, offering long-term drought resilience benefits (both quantifiable and qualitative) by providing an additional water supply, improving water management and indirectly benefitting fish, wildlife and the environment.

The proposed project is expected to increase the City’s pumping capacity by approximately 4,032 AFY, thus reducing the City’s reliance on imported water by the same amount annually. The Flower St. Well improvement project is expected to provide benefits for at least 50 years, following successful completion of the project.

*Will the project make additional water supplies available? If so, what is the estimated quantity of additional supply the project will provide and how was this estimate calculated?*

Yes. The Project will make additional water supplies available to the City, MWD, and the Bureau of Reclamation (BOR or Reclamation). The estimated quantity is 4,032 AFY which is based on an additional average pumping capacity of 2,500 gpm with the installation of the new Flower St. Well. This equates to 40,320 AF in 10 years.

The City of Santa Ana Final Technical Memorandum No. 2: Hydraulic Model Development Best Practices performed a modeling of the potable water for determination of appropriate hydraulic parameters. The modeling included MWD connections and all of the City facilities such as wells, tanks, and pump stations. This comprehensive modeling effort comprised of model build, demand allocation, diurnal pattern development, steady state and extended period simulation calibrations and subsequent hydraulic analyses of the existing City water system using the calibrated models.
This report confirms the capacity of all the wells including Well 29 and Well 30 that are in close proximity to the proposed new Flower St. Well. (Refer to Figure 3 for the location of the Flower St. Well other nearby City water supply wells.) These wells produce 2,500 (gpm) and 2,800 (gpm) respectively. For the new Flower well, the estimated capacity of 2,500 (gpm) or 4,032 AFY was used which is more conservative.

This means that the City is able to pump an additional 4,032 AFY of local groundwater thus reducing the City’s demand from MWD and Reclamation water sources by 4,032 AFY.

What percentage of the total water supply does the additional water supply represent? How was this estimate calculated?

With a goal additional pumping capacity of 2500 gpm, the project proposes to add approximately 4,032 AF of additional supply to the City on an annual basis.

<table>
<thead>
<tr>
<th>Water Supply Source</th>
<th>Annual Supply (Pre-Project)</th>
<th>% of Five-Year Average Annual Supply</th>
<th>Annual Supply (Post-Project)</th>
<th>% of Average Annual Supply Post-Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported Water</td>
<td>9,087</td>
<td>27%</td>
<td>5,055</td>
<td>15%</td>
</tr>
<tr>
<td>Local Supply (Groundwater)</td>
<td>24,428</td>
<td>73%</td>
<td>28,460</td>
<td>85%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33,515</strong></td>
<td><strong>100%</strong></td>
<td><strong>33,515</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

A simple mathematic calculation reveals that the proposed project will therefore increase the City’s current supply by approximately 12 percent.

Provide a brief qualitative description of the degree/significance of the benefits associated with the additional water supplies.

The construction of the proposed new Flower St. Well Project will address the low pressure deficiencies in the northeastern portion of the Low Zone on the south side of Interstate 5 between East 17th Street and East 1st Street, as identified in the 2017 Master Plan. Without this new well the water pressure in this area may continue to drop and could reach a level of service that is not adequate and will result in other consequences such as firefighting capacity. In addition to improving system reliability and flexibility, the Flower St. Well will add pumping capacity to the city system and enhance the City’s drought resiliency by reducing reliance on imported water.

The ability to create any additional water supplies is extremely significant to the City and the state, as we continue to build long-term resilience to drought, by reducing our dependence on
severely drought-stricken imported water supplies. The anticipated benefits associated with the additional water supply that will result from the construction of the Flower St. Well project include the following:

- Increasing the City’s pumping capacity 4,032 AFY approximately 12 percent by providing an additional groundwater source
- Providing a more drought resilient water supply alternative 4,032 AFY
- Providing a more economical water supply alternative
- Allowing the City to more efficiently distribute pumped groundwater throughout the municipal system to augment isolated low-pressure areas and improve/regulate overall system pressure
- Reducing wear and tear on other City wells (energy and capital cost savings)
- Reducing need for emergency response actions (demand for immediate alternate supply)

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 construction of the Flower St. Well will improve the management of water supplies on both a local (City) and state-wide level. Because it proposes to provide an alternative supply of 4,032 AFY less imported water supplies annually, it will improve the state’s ability to better manage its imported water supplies, as well as allow the City to gain better control and better manage its local resources.

The proposed project will further improve the management of our local water supplies by increasing efficiency and operational flexibility. The 2017 Water Master Plan identified low-pressure deficiencies in the northeastern portion of the Low Zone on the south side of Interstate 5 between East 17th Street and East 1st Street. To resolve these low-pressure deficiencies, the city is proposing building the Flower St. Well. Without the construction of the proposed Flower St. Well, the water pressure in this area may continue to drop and could reach an unacceptable level of service that is not adequate in comparison to the rest of the City’s water system. The proposed project improves the management of water supplies by using Flower St. Well to augment the pressure in the local area to maintain acceptable levels of service.

The proposed project moves toward achieving the City’s conservation goals, maintains an acceptable pressure in the City’s existing piping network, adds an additional 4,032 AF of pumping capacity, and minimizes the negative impact to the community at large.

What percentage of the total water supply does the water better managed represent? How was this estimate calculated?
As demonstrated in Table 1 above, the quantity of water that will be better managed because of this project is more than 4,032 AF annually. According to the City’s five year average of water supply the City annually supplies 33,515 AFY to its residents. A simple mathematic calculation reveals that the proposed project anticipates that in excess 12 percent of the City’s total water supply will be better managed, as a result.

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

The water demand continues to increase, causing further reliance on more costly imported water sources. The most significant factors altering water use between 2015 and 2040 will be the increase in water demand from the single family and multi-family sector. The single family sector is expected to increase from 14,084 AF in 2015 to 15,260 AF in 2040, and the multi-family sector is expected to increase from 10,399 AF in 2015 to 11,167 AF in 2040. The total water demand is expected to increase from 36,655 AF in 2015 to 39,716 AF in 2040. Therefore, managing the need for water supply during drought becomes even more critical as the demand for imported water will be at its height. Therefore, providing additional local groundwater will allow the City to have the operational flexibility to manage its resources when it is most needed.

In addition, the construction of the proposed new Flower St. Well Project will address the low pressure deficiencies in the Low Zone as identified in the 2017 Master Plan. Without this new well the water pressure in this area may continue to drop and could reach a level of service that is not adequate and will result in other consequences such as firefighting capacity.

The proposed project offers the following anticipated water management benefits, which collectively offer benefits of great significance:

- Provides 4,032 AFY additional pumping capacity of to the City, allowing less reliance on imported water, thereby reducing negative impacts to the environment and the community at large
- Provides enhanced flexibility in the distribution system by using Flower St. Well to augment and regulate the pressure in the local distribution system
- Provides educational opportunities to the general public, encouraging their personal water management efforts

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

Water quality samples at the well discharges are typically collected by the City’s water quality inspectors and contract testing laboratories, as well as by Orange County Water District (OCWD). The proposed project will provide this data for improved groundwater monitoring for both the City and OCWD. In addition, other necessary data such as total water use, change in groundwater storage, and elevation data can be obtained. This data will be made available to local (City) and regional (OCWD and their member agencies) users. **It is the intent of this**
project to improve water management through the examination of the water quality data that it will provide.

*Will the project have benefits to fish, wildlife, or the environment? If so, please describe those benefits.*

By providing an alternate source of water, thus making the City less reliant on State Water Project (surface) water; there will be less diversion that will benefit fish, wildlife, and the environment by protection of that water supply.

*If the proposed project includes any of the following components, please provide the applicable additional information: Wells. What is the estimated capacity of the new well(s), and how was the estimate calculated? How much water do you plan to extract through the well(s)? Will the well be used as a primary supply or supplemental supply when there is a lack of surface supplies? Please provide information documenting that proposed well(s) will not adversely impact the aquifer it/they are pumping from (overdraft or land subsidence). At a minimum, this should include aquifer description, information on existing or planned aquifer recharge facilities, a map of the well location and other nearby surface water supplies, and physical descriptions of the proposed well(s) (depth, diameter, casing description, etc.). If available, information should be provided on nearby wells (sizes, capacities, yields, etc.), aquifer test results, and if the area is currently experiencing aquifer overdraft or land subsidence. Please describe the groundwater monitoring plan that will be undertaken and the associated monitoring triggers for mitigation actions. Describe how the mitigation actions will respond to or help avoid any significant adverse impacts to third parties that occur due to groundwater pumping.*

The City expects to extract 4,032 AFY from the Flower St. Well, which will be used as a primary supply. The City of Santa Ana Final Technical Memorandum No. 2: Hydraulic Model Development Best Practices performed a modeling of the potable water for determination of appropriate hydraulic parameters. The modeling included MWD connections and all of the City facilities such as wells, tanks, and pump stations. This comprehensive modeling effort comprised of model build, demand allocation, diurnal pattern development, steady state and extended period simulation calibrations and subsequent hydraulic analyses of the existing City water system using the calibrated models.

This report confirms the capacity of all the wells including Well 29 and Well 30 that are in close proximity to the proposed new Flower St. Well. (Refer to Figure 3 for the location of the Flower St. Well other nearby City water supply wells.) These wells produce 2,500 (gpm) and 2,800 (gpm) respectively. For the new Flower well, the estimated capacity of 2,500 (gpm) or 4,032 AFY was used which is more conservative.

The proposed project includes drilling the Flower St. Well to a depth of about 1,300 feet below ground surface (bgs). This depth is consistent with other wells in the city, so its expected impact
on the aquifer is not significant. The Flower St. Well will be installed with minimum of an 18-inch diameter casing. The design capacity of the well will be about 2,500 to 3,000 (gpm) well pump flow range; design head of about 400 to 450 feet; and the well pump will be driven by a 350 to 400 HP electric motor. See Appendix 5 for technical information regarding all of the City’s current active groundwater wells.

The ability to create any additional water supplies is extremely significant to the City and to the local region and the state as stated in the new Water Resilience Portfolio that was published by Governor Newsome’s office on 7/28/2020.

Referring to the basin map for the City of Santa Ana is deep portion of the aquifer. According to the Orange County Water District’s 2018-2019 Engineer’s Report on the Groundwater Conditions, Water Supply and Basin Utilization in the Orange County Water District (OCWD Engineer’s Report) the change in groundwater levels from 2018 to 2019 generally rose moderately throughout the entire groundwater basin.

OCWD manages the groundwater production, water supply and basin utilization, wastewater reclamation measures and provides water demand forecasts for the region. The capacity of this well is within the City of Santa Ana’s water rights and therefore will not cause an overdraft of the basin.

Additional information concerning the aquifer and basin management can be found in OCWD’s Annual Engineering Report, which includes aquifer description, information concerning aquifer recharge and test results, and information regarding nearby wells. OCWD is responsible for the
Groundwater management where City of Santa Ana is located and monitoring, and mitigation will follow all OCWD requirements.

**Figure 4. Orange County Water District Aquifers**

---

E.1.2. Evaluation Criterion B — Drought Planning and Preparedness

The City of Santa Ana’s DROUGHT CONTINGENCY PLAN is included in Appendix 4 of this application.

**B. Explain how the Drought Action Plan addresses drought. Explain whether the drought plan was developed with input from multiple stakeholders. Was the drought plan developed through a collaborative process? Does the drought plan include consideration of climate change impacts to water resources or drought?**

The City of Santa Ana hired a consultant to develop the Drought Action Plan with input from multiple stakeholders including the Planning, Parks, and Finance Departments. The Drought Action Plan addresses drought by implementing citywide conservation. The proposed project will reduce the city’s dependence on imported water and allow the city to utilize a resource already available within the city. The City of Santa Ana has a long history of collaborating with stakeholders on water conservation, including the Orange County Water District, Municipal Water District of Orange County and Metropolitan Water District of Southern California. The goal of each is to reduce demand on drought-stricken import supplies, through conservation and
the implementation of alternate local sources. This is consistent with City’s Climate Action Plan that includes reducing greenhouse gas emissions from City operations and the community through energy and water more efficiency as one of its strategies.

C. Describe how your proposed drought resiliency project is supported by an existing drought plan. Does the plan identify the proposed project as a potential mitigation or response action? Does the proposed project implement a goal or need identified in the drought plan? Describe how the proposed project is prioritized in the referenced drought plan?

The City of Santa Ana developed the Drought Action Plan when MWD took action to reduce water delivery to the City. As a result of this Drought Action Plan, City has been striving to provide alternate water source to meet the demand. This well is also fully supported by the regional supplier’s (MWD) drought management plan. The proposed project will provide an additional 4,032 AFY to the City's groundwater supplies, resulting in the City’s equivalent reduction in demand for imported water and allowing the city to utilize a resource already available within the city, which is consistent with the City’s Drought Action Plan. In August 1999; MWD adopted a “Water Surplus and Drought Management Plan”, and in 1996 adopted an evolving long-term water strategy known as the Integrated Water Resources Plan, or IRP. The IRP was updated in 2004, 2010, and 2015. Like the 2010 IRP Update, the 2015 IRP Update “looks to local solutions to close any potential gap between supply and demand,” representing a refinement — not an overhaul — of Southern California's water management strategy. The 2015 IRP Update projects a need for more than 723,000 AF of growth in imported and local supplies and reduced water demands from conservation within the 25-year horizon of the plan and is expected to frame future Implementation Policy discussions with MWD and its member agencies.

The proposed Flower St. Well project offers a local supply to help to close the projected gap between future demand and available supply, consistent with both City of Santa Ana and MWD drought management policies.

E.1.3. Evaluation Criterion C — Severity of Actual or Potential Drought Impacts Addressed by the Project

What are the ongoing or potential drought impacts to specific sectors in the project area if no action is taken? (e.g., impacts to agriculture, environment, hydropower, recreation and tourism, forestry), and how severe are those impacts? Impacts should be quantified and documented to the extent possible.

Category D4 drought is considered one of the most severe level and exceptional drought that corresponds to an area experiencing exceptional and widespread crop and pasture losses, fire risk and water shortages that result in water emergencies. U.S. Drought Monitor indicates (www.drought.gov) the longest duration of drought (D1-D4) in California (since 2000) lasted 376 weeks beginning on December 27, 2011 and ending on March 5th, 2019. The most intense period of drought was in July 2014 where D4 affected 58.41% of California land. California is currently going through an abnormally dry period. Temperatures in various part of the state has been at least 15 degrees above average temperature (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. According to the University of Nebraska–Lincoln Drought Monitor, Orange County was declared a D5 “Exceptional Drought Area”, widespread water shortages or restrictions; widespread crop and pasture losses; shortages of water supply in reservoirs, streams and wells creating water emergencies. State-wide droughts have severely impacted both local waters supplies as well as imported supplies from the Colorado River and northern California, from which the City of Santa Ana currently relies on for approximately 27 percent 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 approximately $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.

In an L.A. Times editorial published in March 2017, Jay Famiglietti, Senior Water Scientist at the NASA Jet Propulsion Laboratory and a professor of Earth System Science at University of California, Irvine, stated that California has only one year of water stored in its reservoirs. The severe drought has depleted snowpack, lakes and rivers — affecting our water supply and the recreational opportunities and related tourism sectors (lodging, food, retail) that these resources provide.

A recent study from The Ecological Society of America (December 2016) states that declining streamflow and the accompanying rising stream temperatures have immediately threatened the provision of drinking water, hydropower generation and threatened the health of ecosystems that rely on water. Governor Jerry Brown declared an end to California’s historic five-year drought in April 2017, and the record rainfall in that year brought some relief to most of California. However, as recent of January 2018 the United States Drought Monitor noted that the City of Santa Ana and Orange County remain in “D1 Moderate Drought Status” for the foreseeable future. Additionally, there are long term impacts from the drought that will require more than one wet season to resolve.

The California drought severely affected forestry and the wildlife that inhabits 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 has issued a state of emergency in California because trees are dying, creating more fuel for wildfires. A census by the U.S. Forest Service found 22 million trees are dead because of the
drought, greatly increasing the risk of wildfire. 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.

There is no question that drought has severely impacted the City of Santa Ana’s imported water supplies from the Colorado River and northern California. Drought resiliency for the City can best be provided by becoming less reliant upon imported water. By increasing its groundwater pumping capacity, the proposed Flower St. Well project will accomplish exactly that: allow the City of Santa Ana to be less reliant on import water. **Without the Flower St. Well project, the City of Santa Ana will continue to contribute to the demands on the limited and crucial supply of imported water that has already been severely compromised by drought in California, from which the City and much of the region has not yet fully recovered.**

*Whether there are public health concerns or social concerns associated with current or potential drought 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)?*

According to the Centers for Disease Control and Prevention (CDC), severe drought conditions can negatively affect air quality. During drought, 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 may include the following:

- compromised quantity and quality of drinking water;
- increased recreational risks;
- effects on air quality;
- diminished living conditions related to energy, air quality, and sanitation and hygiene;
- compromised food and nutrition; and
- increased incidence of illness and disease.

*Does the community have another water source available to them if their water service is interrupted?*

The City of Santa Ana has only two sources of water: groundwater and imported water. There are no other sources, should the water service be interrupted. The proposed Flower St. Well project is intended specifically to provide an enhanced alternate water source to relieve some of the demand for imported water, so that the City becomes more drought resilient.
According to the January 12, 2018 report from the California Department of Water Resources, the statewide storage supply was at 109 percent of average due to the 2017 rainy season, however water storage is still only at 63 percent of capacity. City has responded to the drought condition by persistent water conservation and planning for diversified water source. This project in directly aligned with City’s goal to have local and reliable water source to depend on.

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

There has been a tremendous environmental impact from the recent drought conditions. According to the Pacific Institute, many of the state’s environmental flows went unmet during the drought period, affecting aquatic ecosystems and decreased protections for endangered species. The increased salinity levels in the Bay Delta (caused by less rainwater diluting the salinity of the water) have affected waterfowl, wildlife refuge and fisheries habitat. The recent drought has caused losses or destruction of fish and wildlife habitat, loss of wetlands, more wildfires and lower water levels in reservoirs, lakes, and ponds. Dry creeks and rivers led to 18 fish species to diminish to near extinction. According to The Public Policy Institute of California, a priority of the Proposition 1 water bond has been California’s ecosystems, which have been hit hard by the drought; 45 projects address water supply and habitat to support native species around the state. Wildlife that have thrived in urban habitats have also struggled to adapt as state and local conservation regulations force California homeowners to let their lawns and gardens dry and die.

**Whether there are ongoing, past or potential, local, or economic losses associated with current drought conditions (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. In 2014, California voters passed Proposition 1, which is a $7.5 billion water bond intended to provide significant investments in the state’s drought-challenged water systems.

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 services. Interruption of water has a substantial impact on these industries that in turn maintain the economic growth in the City.

**Whether there are other drought-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,
New Flower St. Well Project
WaterSMART 2021 Drought Resiliency Projects

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. The proposed project will alleviate such issues among locals water agencies.

Describe existing or potential drought conditions in the project area.
Is the project in an area that is currently suffering from drought or which has recently suffered from drought? Please describe existing or recent drought conditions, including when and the period of time that the area has experienced drought conditions (please provide supporting documentation, [e.g., Drought Monitor, droughtmonitor.unl.edu]).

The years 2012 to 2015 marked the driest four-year period in 120 years of historical records, along with historic high temperatures (California Department of Water Resources, 2015). Additionally, between 1976 and 2016, California's population has almost doubled, from 22 million to 40 million; increasing pressure and demand on limited existing resources.

U.S. Drought Monitor indicates (www.drought.gov) the longest duration of drought (D1-D4) in California (since 2000) lasted 376 weeks beginning on December 27, 2011 and ending on March 5th, 2019. The most intense period of drought was in July 2014 where D4 affected 58.41% of California land. California is currently going through an abnormally dry period. Temperatures in various part of the state has been at least 15 degrees above average temperature (June 2020). Also, the northern part of the State are still experiencing various degrees of drought condition that will have an impact on the State water resources.

According to University of Nebraska–Lincoln Drought Monitor, the City of Santa Ana had been in a continuous drought status, ranging from a D1 (Moderate Drought) area to D5 (Exceptional Drought) from February 2012 well into 2018. The October 3, 2019 report states that although there has been some recent relief, long term dryness is still evident.

On April 1, 2015, Governor Jerry Brown issued an executive order to cities across California to cut water use by 25 percent as part of a sweeping set of mandatory drought restrictions, the first in state history. On April 14, 2015, the governing board of the Metropolitan Water District (MWD) acted to reduce water deliveries to its member agencies, including the City of Santa Ana. Beginning July 1, 2015, the City’s water deliveries were reduced by 15 percent.

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

The California 2020 Water Resilience Portfolio that was just published on July 28, 2020 predicts that the livelihood in our state is increasingly at risk as California confronts more extreme droughts and floods, rising temperatures, over-drafted groundwater basins, aging infrastructure
New Flower St. Well Project  
WaterSMART 2021 Drought Resiliency Projects

and other challenges magnified by climate change. For some of California’s most vulnerable populations, the risks are particularly acute.

According to the Intergovernmental Panel on Climate Change (IPCC), the warming of the climate system is unequivocal. The period from 1983 to 2012 was likely the warmest 30-year period of the last 1400 years in the Northern Hemisphere (IPCC, 2014). California’s temperature record reflects global temperature trends.

The NOAA Climate Divisional Dataset is a long-term dataset used to generate historical (1895-2016) climate analyses for the contiguous United States. In the most recent report covering California, within Climate Division 2 (Sacramento Drainage), the long-term record depicts a dramatic shift in annual average temperature. The data points from the 21st century indicate an overall shift in climate compared to the historical record. Data from NOAA Climate Divisional Dataset, Division 6 (South Coast Drainage, including the City of Santa Ana) depicts even more annual precipitation variation from 5 to 40 inches per calendar year. The past 15 years since the turn of the century are also extremely warm and dry, indicating a change in climate. The three years (2014-2017) are depicted as being some of the warmest and driest years on record, with the warmest on record occurring in 2015, and the second warmest in 2016. (Hydroclimate Report Water Year 2016)

E.1.4. Evaluation Criterion D — Project Implementation

Describe the implementation plan of the proposed project. Include an estimated project schedule that shows the duration of the proposed work, major tasks, milestones, and dates.

The Estimated Project Schedule below summarizes the stages and duration of the proposed work, including major tasks, milestones, and estimated dates. The Project design phase will be well under development at the time of agreement execution for this grant. City has consulted with the other city departments and has approval on the location of the well site and its development. The project will be completed in October 2023.
Table 2: Estimated Project Schedule

<table>
<thead>
<tr>
<th>No.</th>
<th>Task/Milestone</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RFP For Design</td>
<td>Sep 20</td>
<td>Dec 20</td>
</tr>
<tr>
<td>2</td>
<td>Design Period</td>
<td>Dec-20</td>
<td>Sep-21</td>
</tr>
<tr>
<td>3</td>
<td>Public Bid Process</td>
<td>Oct 21</td>
<td>Nov 21</td>
</tr>
<tr>
<td>4</td>
<td>Award Construction Contract</td>
<td>Dec 21</td>
<td>Jan 22</td>
</tr>
<tr>
<td>5</td>
<td>Construction Period</td>
<td>Feb 22</td>
<td>Mar 23</td>
</tr>
<tr>
<td>6</td>
<td>Project Closeout</td>
<td>Apr 23</td>
<td>Jun 23</td>
</tr>
</tbody>
</table>

Describe any permits that will be required, along with the process for obtaining such permits.

Anticipated permits (and the process for their approval/issuance) is expected to include the following:

Table 3: Anticipated Permits and Processes for Approval

<table>
<thead>
<tr>
<th>Anticipated Permit</th>
<th>Process for Approval or Issuance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works approval of plans and specifications</td>
<td>Plans and Specifications to be reviewed by City engineering staff and approved by the Water Resources Manager</td>
</tr>
<tr>
<td>City of Santa Ana Building Department to issue appropriate building permits</td>
<td>Plans and Specifications to be reviewed and approved by City Building Department staff and issue appropriate building permits</td>
</tr>
<tr>
<td>Well drilling permits</td>
<td>Well driller to apply for and receive approval from the Orange County Health Care Agency prior to commencement of any drilling operations</td>
</tr>
<tr>
<td>National Pollutant Discharge Elimination System (NPDES) permit</td>
<td>City to apply for and receive NPDES permit (or amend existing permit) to dispose of test water prior to commencement of any drilling operations</td>
</tr>
<tr>
<td>City’s public bid process for lowest responsible bidder</td>
<td>Compliance with State of California Public Contracts Code</td>
</tr>
<tr>
<td>State of California Department of Public Health approvals for acceptable drinking water standards</td>
<td>City to submit Water Quality reports for approval</td>
</tr>
<tr>
<td>Southern California Edison (SCE) permit for electrical service</td>
<td>Coordination for issuance by SCE</td>
</tr>
<tr>
<td>State Water Resources Control Board approval for storm water and test pumping discharge</td>
<td>City to apply for issuance by SWRCB</td>
</tr>
<tr>
<td>Orange County Flood Control District permit for discharge to County facility during test pumping operation</td>
<td>City/contractor to apply for issuance by Orange County Flood Control District</td>
</tr>
</tbody>
</table>
New Flower St. Well Project
WaterSMART 2021 Drought Resiliency Projects

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

The City of Santa Ana has completed several reports that provide the information for high yield areas within the City. The location of the new Flower St. Well is in close proximity to the Walnut pump station. City completed a comprehensive modeling of its water facilities that identified the need for this project. This was followed by the City’s Water Master Plan in 2017 that provides the information on close by wells along with the need for additional wells in the low pressure zone.

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

There are currently no new policies required to implement the project; the following administrative actions required:

1. Issue Request for Proposals and select a design consultant
2. Public Works approval of plans and specifications
3. Public Bid process to determine the lowest responsible bidder
4. Santa Ana City Council to award construction contract (to the lowest responsible bidder) and approve project funding.
5. City of Santa Ana Building Dept. to issue appropriate building permits.
6. City of Santa Ana Public Works Dept. to issue Public Encroachment Permit(s)
7. Southern California Edison (SCE) to issue permit for electrical service.
8. Orange County Health Care Agency to issue well drilling permit.
9. City to apply for and receive NPDES permit (or amend existing) to dispose of test water.
10. State Water Resources Control Board to issue permit for storm water and test pumping discharge.
11. Orange County Flood Control District to issue permit for work in County right-of-way and approval for test pumping discharge.
12. City to submit water quality reports to the State of California Department of Public Health for approval and compliance with acceptable drinking water standards.
13. Construction Management will be provided by a 3rd party consultant
14. Grant Compliance: The City of Santa Ana has professional grant consultants on contract that will utilize to assure all the BOR requirements are met in a timely manner.

E.1.5. Evaluation Criterion E — Nexus to Reclamation

How is the proposed project connected to a Reclamation project or activity?

As noted earlier, the City of Santa Ana receives approximately 27 percent of its water from the Metropolitan Water District of Southern California which is the designated contractor for the Colorado River Project (Colorado River Aqueduct or CRA) and the Cal Fed Bay Delta Project
New Flower St. Well Project
WaterSMART 2021 Drought Resiliency Projects

(SWP). This project proposes to reduce the City’s use of imported water and establish a sustainable local water source.

Will the project benefit any tribe(s)?

Reducing water demand from the SWP and Colorado Aqueduct by using local supplies in untapped aquifers through the new Flower St. Well in the City of Santa Ana will indirectly allow Reclamation facilities to better meet their responsibilities to tribes.

Does the applicant receive Reclamation project water?

Yes. The City receives its water from MWD, which is supplied from the original water sources of the CRA and the SWP.

Is the project on Reclamation project lands or involving Reclamation facilities?

The project is not on Reclamation lands but will directly benefit Reclamation project facilities and environmental impacts from a long-term, decreased dependence on Reclamation water.

Is the project in the same basin as a Reclamation project or activity? No.

Will the proposed work contribute water to a basin where a Reclamation project is located?

The project will decrease dependence on both the State Water Project and the Colorado Aqueduct projects, which means less water will be pulled from these projects’ source basins.

E.1.5. Evaluation Criterion F — Department of the Interior (DOI) and Bureau of Reclamation Priorities

Please address those priorities that are applicable to your project. It is not necessary to address priorities that are not applicable to your project. A project will not necessarily receive more points simply because multiple priorities are addressed. 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. Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment.

The Project will use state of the art technology for well operation, management and communications. Therefore, the Project utilizes science and engineering to better manage our scarce water resource.

Prioritize DOI infrastructure needs to highlight: 1) Construction of infrastructure; 2) Cyclical maintenance; and 3) Deferred maintenance.

Being a water infrastructure project, The new Flower St. Well Project is in keeping with the Department of the Interior (DOI) goal of “Construction of Infrastructure”.

19
BOR Priorities:
*Increase Water Supplies, Storage, and Reliability under WIIN and other Authorities.*

The new Flower St. Well Project will produce 4,032 AFY of local, high quality drinking water to reduce reliance on the scarce resources of the State Water Project. This added capacity allows the City to provide a reliable source of water for the region it is serving.

*Addresses Ongoing Drought.*

The additional production of groundwater is directly aimed at better managing the ongoing and worsening droughts in California. As indicated in the UWMP, planning for the new Flower St. Well Project addresses both short term and long-term response to in a sustainable manner.
SECTION 2: PROJECT BUDGET

Standard Form 424 Budget Information A or C

This document is included in the separate submission with all of the City of Santa Ana’s completed Standard Form 424 copies.

A. Funding Plan and Letters of Commitment

The City of Santa Ana does not have any third-party funding sources or expected Federal funding sources outside of this application for assistance. Currently, the City does not have any pending funding requests for this project outside of this application and will provide the funding from the Water Utility Capital Project Funds that will be allocated as part of the Capital Improvement Program for the proposed project.

No Letters of Commitment are included as there are no third-party funders for this project.

B. Budget Proposal

Table 4: Total Project Costs by Source

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>AMOUNT</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs to be reimbursed with the requested Federal funding</td>
<td>$1,500,000</td>
<td>29.5</td>
</tr>
<tr>
<td>Costs to be paid by the applicant</td>
<td>$3,600,000</td>
<td>70.5</td>
</tr>
<tr>
<td>Value of third party contributions</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Project Cost- Phases I &amp; II</strong></td>
<td><strong>$5,100,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Funding Sources

<table>
<thead>
<tr>
<th>Funding Sources</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Santa Ana</td>
<td>$3,600,000</td>
</tr>
<tr>
<td>Subtotal: Non-Federal Funding</td>
<td>$3,600,000</td>
</tr>
<tr>
<td>Bureau of Reclamation Grant for this proposal</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Other Funding</td>
<td>$0</td>
</tr>
<tr>
<td>Subtotal: Federal Funding</td>
<td>$1,500,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>$5,100,000</strong></td>
</tr>
<tr>
<td>BUDGET ITEM DESCRIPTION</td>
<td>COMPUTATION</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>$$/Unit Quantity</td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>N/A</td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>N/A</td>
</tr>
<tr>
<td>Travel</td>
<td>N/A</td>
</tr>
<tr>
<td>Equipment</td>
<td>$ 4,137,700</td>
</tr>
<tr>
<td>Well Equipment</td>
<td>$ 522,000</td>
</tr>
<tr>
<td>Electrical &amp; SCADA Equipment</td>
<td>$ 585,000</td>
</tr>
<tr>
<td>Chemical Injection System</td>
<td>$ 1,000,000</td>
</tr>
<tr>
<td>Chlorine Injection System</td>
<td>$ 166,000</td>
</tr>
<tr>
<td>Wellhead Treatment</td>
<td>$ 1,035,000</td>
</tr>
<tr>
<td>Well Discharge piping</td>
<td>$ 140,000</td>
</tr>
<tr>
<td>Discharge to waste piping</td>
<td>$ 150,000</td>
</tr>
<tr>
<td>Contingency</td>
<td>$ 539,700</td>
</tr>
<tr>
<td>Supplies/Materials</td>
<td>N/A</td>
</tr>
<tr>
<td>Contractual/Construction</td>
<td>$ 962,300</td>
</tr>
<tr>
<td>Professional Services</td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
</tr>
<tr>
<td>Construction</td>
<td>Mobilization/De-Mob &amp; Clean up</td>
</tr>
<tr>
<td></td>
<td>Permitting Fee</td>
</tr>
<tr>
<td></td>
<td>Building</td>
</tr>
<tr>
<td></td>
<td>Lighting</td>
</tr>
<tr>
<td></td>
<td>Hardscape</td>
</tr>
<tr>
<td></td>
<td>Landscape</td>
</tr>
<tr>
<td></td>
<td>Contingency</td>
</tr>
<tr>
<td>Environmental</td>
<td>N/A</td>
</tr>
<tr>
<td>Other</td>
<td>N/A</td>
</tr>
<tr>
<td>TOTAL DIRECT COSTS</td>
<td>$ 5,100,000</td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>N/A</td>
</tr>
<tr>
<td>TOTAL ESTIMATED PROJECT COSTS</td>
<td>$ 5,100,000</td>
</tr>
</tbody>
</table>
C. Budget Narrative

Equipment
The project will require the purchase of a substantial amount of equipment as detailed in Table 6 above. The construction contract will include the purchase of equipment by the selected contractor.

Contractual
Request for proposal will be issued to select the design consultant for preparing the environmental and construction documents following City’s procurement guidelines. Construction contracts will be awarded pursuant final completion of engineering design and advertising for bids following the public contract code requirements once the construction documents have been completed.

Construction management of the project will be provided by a third-party consultant. The design support will be provided by the engineering design consultant.

Environmental and Regulatory Compliance Costs
Costs to cover environmental compliance are included in the project budget. The task for preparation of the environmental and regulatory compliance will be included as part of the scope of work for the selected design team.

The cost incurred by Reclamation to determine the level of environmental compliance required for the project

The project will be evaluated for both CEQA and NEPA compliance and it is anticipated that the environmental process for this project will be a mitigated negative declaration. Since the NEPA documents will be prepared by the City’s consultant, an allocation of $5,000 has been stipulated in the project budget for Reclamation’s oversight as reflected in Table 6.

The cost incurred by the recipient in acquiring any required approvals or permits, or in implementing any required mitigation measures

All costs that will be incurred in acquiring permits and any required mitigation measures will be borne by the contractor as shown in Table 6 above.

Indirect Costs
These are no indirect costs associated with this project. The City of Santa Ana has not received federal negotiated indirect cost rate.

Total Costs
The proposed project’s total cost is $5,100,000 including the Federal Assistance Grant requested in this document.
SECTION 3: ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

Included below is the list of questions that all applicants must respond to, with the answers below each question.

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.

Other than typical dust and noise generated from construction activity, the project is not expected to have any impact on the surrounding environment. Dust control will be mitigated through compliance with local Air Quality Management District (AQMD) requirements. Construction noise is not expected to exceed that allowed by local code. It is anticipated that the project will be a Mitigated Negative Declaration for CEQA.

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?

There are no known 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.

There are no known wetlands or other surface waters inside the project boundaries.

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., head gates, 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.

No; the proposed project will not result in any modification of or effects to, individual features of an irrigation system (e.g., head gates, canals, or flumes).

Are any buildings, structures, or features in the irrigation district listed or eligible for listing
New Flower St. Well Project
WaterSMART 2021 Drought Resiliency Projects

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.

No; there are no buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places within the proposed project area.

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

No; there are no known archeological sites in the proposed project area.

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

No; the proposed project will NOT have a disproportionately high and adverse effect on low income or minority populations. In fact, the proposed project will have a POSITIVE effect on the local (and statewide) population, including low income and minority populations, of which Santa Ana has historically had one of the lowest per capita incomes in all of Orange County. The local population (of which more than 78 percent was of Hispanic or Latino race in 2010) will benefit from high quality, cost effective drinking water and the drought stricken state-wide population will benefit from the increased availability of imported water.

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

No; the proposed project will NOT limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands.

**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?**

No; the proposed project will NOT contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.
SECTION 4: REQUIRED PERMITS OR APPROVALS

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

<table>
<thead>
<tr>
<th>Anticipated Permit</th>
<th>Process for Approval or Issuance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works approval of plans and specifications</td>
<td>Plans and Specifications to be reviewed by City engineering staff and approved by the Director of Public Works/City Engineer</td>
</tr>
<tr>
<td>City of Santa Ana Building Department to issue appropriate building permits</td>
<td>Plans and Specifications to be reviewed and approved by City Building Department staff and issue appropriate building permits</td>
</tr>
<tr>
<td>Well drilling permits</td>
<td>Well driller to apply for and receive approval from the Orange County Health Care Agency prior to commencement of any drilling operations</td>
</tr>
<tr>
<td>National Pollutant Discharge Elimination System (NPDES) permit</td>
<td>City to apply for and receive NPDES permit (or amend existing permit) to dispose of test water prior to commencement of any drilling operations</td>
</tr>
<tr>
<td>City’s public bid process for lowest responsible bidder</td>
<td>Compliance with State of California Public Contracts Code</td>
</tr>
<tr>
<td>State of California Department of Public Health approvals for acceptable drinking water standards</td>
<td>City to submit Water Quality reports for approval</td>
</tr>
<tr>
<td>Southern California Edison (SCE) permit for electrical service</td>
<td>City to apply for issuance by SCE</td>
</tr>
<tr>
<td>State Water Resources Control Board approval for storm water and test pumping discharge</td>
<td>City to apply for issuance by SWRCB</td>
</tr>
<tr>
<td>Orange County Flood Control District permit for discharge to County facility during test pumping operation</td>
<td>City/contractor to apply for issuance by Orange County Flood Control District</td>
</tr>
</tbody>
</table>
SECTION 5: EXISTING DROUGHT CONTINGENCY PLAN

Article VI of the City of Santa Ana’s Code of Ordinances is considered to be the City’s “drought contingency plan.” As requested, it is attached to this report in Appendix 5.
SECTION 6: OFFICIAL RESOLUTION

The City of Santa Ana Council approved a resolution to authorize grant applications for water recycling and WaterSMART Drought Response Programs on July 21, 2020, a copy of which is attached in Appendix 1.
RESOLUTION NO. 2020-058

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA ANA AUTHORIZING AN APPLICATION FOR GRANT FUNDING BY THE BUREAU OF RECLAMATION'S WATERSMART DROUGHT RESPONSE PROGRAM FOR THE FLOWER STREET WELL PROJECT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA ANA AS FOLLOWS:

Section 1. The City Council of the City of Santa Ana hereby finds, determines and declares as follows:

A. The City’s potable water comes from an underground basin and is pumped through 21 existing wells.

B. The region’s water supply is limited due to recent recurring droughts.

C. The Flower Street Well Project would reduce the burden on other water production facilities.

D. The estimated design and construction cost for this project is approximately $5,100,000.

E. The United States Department of the Interior offers financial assistance in the form of grant funding through its Bureau of Reclamation’s WaterSMART (Sustain and Manage America’s Resources for Tomorrow) Drought Response Program (Drought Resiliency Projects) for this type of project. The program provides up to a maximum of $1,500,000 in grant funding for multi-phased projects, but not to exceed 50 percent of the total project cost.

F. The City desires to fund part of the cost of the Flower Street Well Project with grant funding from the WaterSMART Drought Response Program.

Section 2. The City Council of the City of Santa Ana hereby authorizes and directs the Executive Director of Public Works, or his or her designee, to sign and submit, for and on behalf of the City of Santa Ana, a grant application from the Bureau of Reclamation’s WaterSMART Drought Response Program for the Flower Street Well Project up to the amount of $1,500,000.

Section 3. The Executive Director of Public Works, or his or her designee, is designated to provide the assurances, certifications, and commitments required for the grant application, including executing a financial assistance or similar agreement with the

Resolution No. 2020-058
Page 1 of 3
Bureau of Reclamation within established deadlines and any amendments or changes thereto.

Section 4. The Executive Director of Public Works, or his or her designee, is designated to represent the City of Santa Ana in carrying out the City’s responsibilities under the grant agreement, including certifying disbursement requests on behalf of the City and compliance with applicable state and federal laws.

Section 5. If a grant award is made by the Bureau of Reclamation, the City of Santa Ana commits to providing up to $3,600,000 in matching funds for the Flower Street Well Project plus any remaining balance.

Section 6. This Resolution shall take effect immediately upon its adoption by the City Council, and the Clerk of the Council shall attest to and certify the vote adopting this Resolution.

ADOPTED this 21st day of July, 2020.

Miguel A. Pulido
Mayor

APPROVED AS TO FORM:
Sonia R. Carvalho, City Attorney

By: John M. Funk
Assistant City Attorney
AYES: Councilmembers Bacerra, Mendoza, Penaola, Pulido, Sarmiento, Solorio, Villegas (7)

NOES: Councilmembers None (0)

ABSTAIN: Councilmembers None (0)

NOT PRESENT: Councilmembers None (0)

CERTIFICATE OF ATTESTATION AND ORIGINALITY

I, DAISY GOMEZ, Clerk of the Council, do hereby certify the attached Resolution No. 2020-058 to be the original resolution adopted by the City Council of the City of Santa Ana on July 21, 2020.

Date: 7-23-2020

Daisy Gomez
Clerk of the Council
City of Santa Ana
Appendix 2: Copy of SAM Proof of Enrollment

**Use the SAM Status Tracker Now**

Check registration status by typing in a DUNS Number.
DUNS Number: 083153247  Plus 4 (Optional): 

Or, check registration status by typing in a CAGE Code.
CAGE Code: 

[Buttons: Search, Clear]

**SANTA ANA, CITY OF**

**Status: Active**

Your registration was activated on Feb 20, 2020. It expires on Feb 19, 2021 which is one year after you submitted it for processing.

- Core Data: Completed
- Assertions: Completed
- Reps & Certs: Completed
- POCs: Completed
- Submit: Completed
- Processing: Completed
- Active: Completed