BUREAU OF RECLAMATION

# Syracuse City

## 2700 Secondary Water Reservoir and Water Pump Station

WaterSMART: Drought Resiliency Projects - NOFO No. R22AS00020

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### Applicant Contact:

Robert Whiteley, Public Works Director
3061 2400 W, Syracuse City, Utah 84414
p: 801.825.7235 e: rwhiteley@syracuseut.com

### Project Manager:

Nathan Smith, P.E.
466 N 900 W, Kaysville, Utah 84037
p: 801.547.0393 e: nsmith@jub.com

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# Technical Proposal and Evaluation Criteria

## Executive Summary

*Date:* October 5, 2021
*Applicant Name:* Syracuse City
*Project Name:* Syracuse City 2700 South Secondary Reservoir and Pumping Project
*City, County, State:* Syracuse City, Davis County, Utah
*Project Manager:*
*Name:* Nathan Smith, P.E.
*Phone:* (807) 825-7235
*E-mail:* nsmith@jub.com

*Applicant Category:* Category A

*A one-paragraph project summary that provides the location of the project, a brief description of the work that will be carried out, any partners involved, recent drought conditions in your project area. Describe how this project is expected to help alleviate impacts of those conditions, and identify any drought plans or other planning documents that support the project. This information will be used to create a summary of your project for our website if the project is selected for funding.*

The Syracuse City 2700 Secondary Water Reservoir and Water Pump Station, located in Syracuse City, will store 37 acre-feet of water by building a concrete-lined reservoir and pump station and installing HDPE pipe. The project will allow the City to store an additional 37 acre-feet of water and pump 14,000 gallons per minute (gpm) through 30-inch HDPE pipe to the existing pressure irrigation system. Declining water levels throughout the Weber River Basin due to extreme drought conditions, combined with growth-driven water demand increases, have had a substantial impact on water reliability for the City of Syracuse and its users. Growing the City's secondary water storage will increase the City's resilience to drought by reducing user's dependency on culinary water supplies to irrigate when drought conditions force the late delivery and early shut-off of secondary water during summer months. Irrigating with secondary water will reduce use of potable water—ultimately reducing the demand on the stressed Weber River Basin.

*State the length of time and estimated completion date for the proposed project including the construction start date (mm/yr) (if applicable) Note: proposed projects should not have an estimated construction start date that is prior to July 2022.*

Based on the Reclamation contract timeline, Syracuse City will start the environmental and preliminary design in August/September 2022. The final design will be completed in March/April 2022. The City plans to bid on the project in April/May 2022. It is anticipated that the construction of the reservoir and pump station and installation of the HDPE pipe will start in June/July 2022 and will be completed and ready to bring online in April 2023. Final reports and project closeout will be in November 2023/January 2024. The project will be accomplished within the three-year allowance.

*Whether or not the proposed project is located on a Federal facility.*

No, the project is not located on a Federal facility. However, Syracuse City receives a large percentage of its water from Weber Basin Water Conservation District to supplement its culinary and secondary water supply. Weber Basin Water Conservation District's facilities are all part of a Bureau of Reclamation Project.

## Project Location

*Provide specific information on the proposed project location or project area including a map showing the geographic location. For example, [project name] is located in [county and state] approximately [distance] miles [direction, e.g., northeast] of [nearest town]. The project latitude is {##°##'N} and longitude is {###°##'W}.*

The proposed Syracuse City 2700 Secondary Water Reservoir and Pump Station is in Syracuse City near the Great Salt Lake in Davis County, Utah. The project latitude is 41° 4'34.1508"N and longitude is 112° 4'5.7072"W. See Attachment A – Project Location Map.

## Technical Project Description

*Provide a more comprehensive description of the technical aspects of your project, including the work to be accomplished and the approach to complete the work. This description should provide detailed information about the project including materials and equipment and the work to be conducted to complete the project. This section provides an opportunity for the applicant to provide a clear description of the technical nature of the project and to address any aspect of the project that reviewers may need additional information to understand.*

The proposed 37 acre-foot reservoir will be below grade and will be lined with concrete. A land drain will be installed as part of the project to handle existing groundwater in the area. The reservoir will have a 50-foot-long access ramp to reach the bottom of the reservoir for cleaning safely. The pump station will be constructed adjacent to the reservoir with a 10-foot-high wall for noise and aesthetics. It is anticipated that four of the pumps will be installed during pump station construction, leaving two spots available for future pumps. Rocky Mountain Power will provide power for the pump station. Three-phase power will be extended to the site to power the pump station. A separate control building will be constructed to house the electric controls systems for the pump station. The proposed project will upsize nearby piping to 18" and 24" diameter pipe.

With past droughts and now a Mega Drought this year, the City has concentrated on outdoor water conservation efforts through restrictions and fines. The regular water season is from April 15 to October 15, but the City chose not to prime the secondary system until May 1 and shut the water off on September 20. With the hottest spring and summer on record, this caused many residents to turn to culinary water to keep their gardens, trees, and shrubs alive. The City is also put a watering restriction on its residents where they can only water two days a week. Many of the City's most significant water users, including businesses, schools, and churches, chose to let their lawns go and did not even water them this year. If the drought persists, the City will likely have to consider stronger restrictions on culinary water for outdoor use and industrial use, which will impact the area's economy and could have significant financial ramifications for the City and workers in these industries.

## Performance Measures

*All applicants are required to propose a method (performance measure) of quantifying the benefits of their proposed project once it is implemented. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of the project.*

During the 2021 irrigation season, the baseflows provided from Davis and Weber Counties Canal Company and Weber Basin were significantly reduced. Syracuse City found that distribution pumps were draining existing reservoirs faster than baseflows could replenish them. The City separated the City into four regions and implemented a ban on watering on certain days for each region to allow the secondary water reservoirs time to refill. The basis of the project is to make more storage available to maximize the collection of water shares and provide for a flexible, reliable secondary water system. Syracuse City uses the SCADA system to monitor, gather, and process real-time data within their water system. This system records events and logs the information into Syracuse's files to manage their water sources, storage, and delivery system. This project will connect into the SCADA system. It will allow the City to measure the benefits of having additional storage and a pump station to move and use water more efficiently.

Syracuse City will track and document the water coming from wholesale providers and distributed it through the new pump station. The pump station will have meters installed that can track real-time data summarised monthly and provide annual reports to the City. The performance measure for this pump station will be the ability of the system to function with the reduced flows from wholesale suppliers.

## Evaluation Criteria

### *E.1.1. Evaluation Criterion A – Project Benefits (30 Points)*

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

The reservoir will build long-term resilience to drought for 50 years or more based on the reservoir's useful life, and the pump station will have enough room for growth to reach a useful life of 20 years or more with proper maintenance. The reservoir will allow 37 acre-feet of water storage, providing water reliability and the beneficial use of their water shares. The pump station will allow efficient water movement within the system and provide for adequate secondary water flows.

*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? 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 Syracuse City 2700 Secondary Water Reservoir and Pump Station will add 37 acre-feet of water storage. The estimate was based on the 2017 Secondary Water Master Plan (2017 Plan) and the 2021 Update to the 2017 Plan. The size of the new reservoir was determined to require a storage volume of 37 acre-feet. The volume was calculated by including the 16.4 acre-feet from the previously proposed reservoir in the 2017 Plan, the 7.0 acre-feet from the planned expansion of a reservoir, and the future need. The capacity of the proposed pump station was determined to be 14,000 gpm to meet the future peak-hour

demands identified in the 2017 Plan. The pump station will initially be equipped to supply 8,000 gpm, and additional pumps will be added as demand increases.

The project allows for storage that will permit the City to store water in time of high flows to be used as an additional supply. This will reduce the amount of time their culinary water well would need to be pumped and will also reduce the need to purchase additional water supplied from the Weber Basin Water Conservancy District (WBWCD) to augment the culinary system due to the secondary water shortage. The City will save on energy and water costs while ultimately conserving water resources within WBWCD.

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

  The project will increase the total Syracuse City water storage by 51 percent. As reported in the Syracuse City Secondary Water Master Plan, there is an existing 36.1 acre-feet of storage. When this project is built and added to the system, the City will have 73 acre-feet of storage capacity. This project represents 51 percent of the 73 acre-feet of storage.

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

  Benefits:

  - **More pumping capacity:** The City's secondary system sources are not initially keeping up with demand. The City is currently about 112 gpm short on peak day demand versus supply. The existing canal pumps only provide about 850 gpm, and their maximum is 1,800 gpm. The City's water rights allow a maximum pump output of 2,244 gpm.
  - **Water reliability and beneficial use:** In 2013, a water rights investigation was completed, indicating that the City only received 49 percent of its allotted water. The new storage facility will allow the City to have a place to store the water and receive its full water right.

*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 project increases efficiency through the following:

  - **Emergency Storage:** The project will provide emergency storage volume to meet emergency demands if a system fails within the City. The City determined that one day of peak day demand would allow some needed water if other sources were cut off.
  - **Water Management and Water Availability**: Syracuse City has one approved water right for secondary water associated with a diversion from a drainage ditch that feeds the secondary water system at Freeport Reservoir. This one water right, which is a municipal right that could also be used for culinary water, is used to supplement water for the irrigation system. The water right allows for a total diversion flow rate of 5.0 cfs or 2,244 gpm. The diversion rate is equal to the depletion rate for this right because it was designated for municipal uses from the beginning. The annual

volume associated with the right is 3,619 acre-feet. The annual volume is the flow rate assuming 365 days of use, 24 hours per day, and seven days per week. It has been essential for the City to utilize this water, particularly in drought conditions when irrigation companies reduce the supply of water serving the reservoirs. This project would allow the City to store this water within its system, which is currently not possible due to limited storage facilities.

- *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 City will better manage over 3,619 acre-feet of water within their secondary system by adding the storage reservoir and pump system. On average, this project will benefit the City by allowing them to now store, manage and utilize 3,619 acre-feet of water per year over ten years.

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

  The City has 7,329 acre-feet of water supply per year. This project will allow them to better manage 3,619 acre-feet of water per year, representing 49 percent of the water supply. This project will build 37 acre-feet of storage for a total of 73 acre-feet. Therefore, this project will provide 51 percent of the total secondary water storage once completed.

  The table below is from the 2017 Secondary Water Master Plan, indicating the existing secondary water storage reservoirs.

| Description | Mgallons | AF |
|---|---|---|
| **Current Capacity/ Resources** | | |
| Freeport Reservoir | 3.94 | 12.09 |
| Jensen Pond | 7.82 | 24.00 |
| **Total Current Capacity/ Resources** | **11.76** | 36.1 |

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

  The project will optimize the water shares owned by Syracuse City, while relieving the demand placed on water from WBWCD.

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

  This project will add SCADA for the newly constructed reservoir to the existing SCADA system, allowing the water manager to collect, analyze, and monitor data throughout the entire system. It will enable the water manager to fill the reservoir during peak flows and pump water through the existing irrigation system for delivery later into the summer season. The whole water delivery system will then be managed in real-time, reducing water losses and pumping costs at Well 3.

### *E.1.2. Evaluation Criterion B – Sustainability and Supplemental Benefits (20 points)*

***1. Climate Change:*** *E.O. 14008 emphasizes the need to prioritize and take robust actions to reduce climate pollution, increase resilience to the impacts of climate change, protect public health, and conserve our lands, waters, oceans, and biodiversity. Examples in which proposed projects may contribute to climate change adaptation and resiliency, may include but are not limited to the following:*

- *In addition to drought resiliency measures, does the proposed project include other natural hazard risk reductions for hazards such as wildfires or floods?*

  The Utah Wildfire Risk Assessment Portal reports 68 percent of the state is currently under moderate to extreme wildfire threat. There are areas near the Bureau of Reclamation (BOR) 's Weber Basin Project that are under the highest-level wildfire threat. As drought conditions continue to worsen in the state of Utah, and the fire season grows longer, water management efforts become all that much more important. The Syracuse City 2700 Secondary Water Reservoir and Pump Station will reduce the demand for culinary water for outdoor use. The City receives 3,874 acre-feet annually from WBWCD for its culinary system. An increase in secondary storage will reduce the need for residents to use culinary water for outdoor use and reduce the need to purchase more water from WBWCD, allowing water to stay in the reservoirs for more extended periods and be available to fight wildfires.
- *Does the proposed project include green or sustainable infrastructure to improve community climate resilience such as, but not limited to, reducing the urban heat island effect, lowering building energy demands, or reducing the energy needed to manage water? Does this infrastructure complement other green solutions being implemented throughout the region or watershed?*

  No, the proposed project does not include green or sustainable infrastructure to improve community climate resilience.
- *Will the proposed project establish and use a renewable energy source?*

  No, the proposed project does not establish or use a renewable energy source.
- *Does the proposed project seek to reduce or mitigate climate pollutions such as air or water pollution?*

  No, the proposed project does not have a treatment element to mitigate water pollutions.
- *Will the proposed project reduce greenhouse gas emissions by sequestering carbon in soils, grasses, trees, and other vegetation?*

  No, the proposed project will not reduce greenhouse gas emissions.
- *Does the proposed project have a conservation or management component that will promote healthy lands and soils or serve to protect water supplies and its associated uses?*

  Yes, the proposed project has a water management component that will help protect water supplies.
- *Does the proposed project contribute to climate change resiliency in other ways not described above?*

  No, the proposed project does not contribute to climate change resiliency in other ways.

*2. 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.*

- *Will the proposed project serve or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety through water quality improvements, new water supplies, or economic growth opportunities.*

  Over the past two years, Syracuse City has seen culinary and secondary water use grow due to development and drought. In 2020, COVID-19 and the stay-at-home mandates put significant strain on the culinary water supply. The City saw an unexpected increase in culinary water use. Then, with a water shortage in the secondary system and the delayed water season, the impacts on the culinary system continued to grow. This project will allow Syracuse to lessen the demands placed on the culinary water system, providing water security and water sustainability within the secondary system.
- *If the proposed project is providing benefits to a disadvantaged community, provide sufficient information to demonstrate that the community meets the applicable state criteria or meets the definition in Section 1015 of the Cooperative Watershed Act (defined as a community with an annual median household income that is less than 100 percent of the statewide annual median household income for the state).*

  Twenty-five percent of City residents earn between $37,980.00 and $60,798.00, which is 50 to 80 percent of the County Area Median Income. About nine percent of the City's population (or about 2,700 people) live in households earning less than $37,980.00 per year. Syracuse City is primarily a bedroom community, so during the pandemic, residents stayed home, which placed an added burden/demand on the culinary water system and sources. During 2020 and 2021, economic uncertainty occurred when people lost their jobs, had to work from home and home school. Then, add on top of all of that an earthquake, a Megadrought, the hottest summer on record, torrential rain and flash flooding, and impacts of smoke from California's forest fires. Still, the addition of all the other impacts has deepened the financial stress, heightened health issues, reduced employment opportunities, and generated public safety problems in Syracuse.
- *If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.*

  N/A

*3. Tribal Benefits: The Department of the Interior is committed to strengthening tribal sovereignty and the fulfillment of Federal tribal trust responsibilities. The President's memorandum, "Tribal Consultation and Strengthening Nation-to-Nation Relationships," asserts the importance of honoring the Federal government's commitments to Tribal Nations.*

- *Does the proposed project support tribal resilience to climate change and drought impacts or provide other tribal benefits such as improved public health and safety through water quality improvements, new water supplies, or economic growth opportunities?*

  N/A
- *Does the proposed project support Reclamation's tribal trust responsibilities or a Reclamation activity with a Tribe?*

  N/A

*4. Ecological Value: Drought resiliency projects often provide environmental benefits in addition to water supply reliability benefits for other users. Ecological resiliency is crucial to sustain ecosystems that can respond to and recover from external stressors resulting from climate change and drought.*

- *Does the project seek to improve ecological climate change resiliency of a wetland, river, or stream to benefit to wildlife, fisheries, or habitats? Do these benefits support an endangered or threatened species?*
  N/A
- *What are the types and quantities of environmental benefits provided, such as the types of species and the numbers benefited, acreage of habitat improved, restored, or protected, or the amount of additional stream flow added? How were these benefits calculated?*
  N/A
- *Will the proposed project reduce the likelihood of a species listing or otherwise improve the species status?*
  N/A

*5. Other Benefits: Will the project address water sustainability in other ways not described above? For example:*

- *Will the project assist States and water users in complying with interstate compacts?*
  N/A
- *Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?*
  Yes, the project will benefit municipal and industrial users by making more water available during drought times and providing redundancy within the system. It allows water shares to be captured and stored in the new reservoir for later distribution.
- *Will the project benefit a larger initiative to address sustainability of water supplies?*
  The project will reduce the need to purchase additional water from WBWCD to use in their culinary system as it allows for more water storage of their existing water rights reducing the need for outdoor culinary water use.

### *E.1.3. Evaluation Criterion C – Drought Planning and Preparedness (15 Points)*

*Attach a copy of the applicable drought plan, or sections of the plan, as an appendix to your application. These pages will not be included in the total page count for the application.*

See Attachment B – Syracuse City Water Conservation and Drought Plan.

*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.*

The City participated in the WBWCD Drought Resiliency Planning process back in 2018. Many of the City's risks, vulnerabilities, and actions come from that plan and are addressed in their 2021 Water Conservation Plan. The City has continued to work with WBWCD to implement its plan and address the Megadrought situation this year. Their 2021 Water Conservation Plan includes many mitigation mesures, such as implementing education, drought rate structures, and conservation during drought. The City has implemented these mitigation measures this year as they addressed the needs of the City and the drought impacts.

- *Explain whether the drought plan was developed with input from multiple stakeholders. Was the drought plan developed through a collaborative process?*
  The drought plan is part of the Water Conservation Plan developed through staff, presented in a public work session, and approved in a public City Council meeting.

- *Does the drought plan include consideration of climate change impacts to water resources or drought?*
  Syracuse participated in the development of the WBWCD Drought Resiliency Plan. Consideration of climate change was part of that plan, and Syracuse City has drawn its assumptions and considerations from this plan.

*Describe how your proposed drought resiliency project is supported by an existing drought plan.*

Syracuse participated in the development of the WBWCD Drought Resiliency Plan. The City has referenced this plan within the Drought section of their Water Conservation Plan. Consideration of risk, mitigation, and response action follows the ones listed within WBWCD's plan.

- *Does the drought plan identify the proposed project as a potential mitigation or response action?*
  Yes, they can be found on pages 25 and 26 of the plan.
- *Does the proposed project implement a goal or need identified in the drought plan?*
  Yes, it addresses the actions and goals that are part of WBWCD's plan.
- *Describe how the proposed project is prioritized in the referenced drought plan?*
  The 2700 Secondary Water Reservoir is listed as a priority project for drought resiliency in the Water Conservation Plan.

### *E.1.4. Evaluation Criterion D – Severity of Actual or Potential Drought Impacts to be Addressed by the project (15 Points)*

*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. For example, impacts could include, but are not limited to:*

- *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? Does the community have another water source available to them if their water service is interrupted?).*
  There is an increased chance of wildfire in areas near Syracuse City as it is required to provide wildfire suppression service to Antelope Island. The secondary water reservoir will provide additional firefighting storage for aircraft to dip out of to suppress fires.
- *Whether there are ongoing or potential environmental impacts (e.g., impacts to endangered, threatened or candidate species or habitat).*
  N/A
- *Whether there are local or economic losses associated with current drought conditions that are ongoing, occurred in the past, or could occur in the future (e.g., business, agriculture, reduced real estate values).*
  Much of the economy in Syracuse City is reliant on adequate water supply to run local businesses. Water restrictions during drought conditions can significantly impact businesses.
- *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).*
  Roughly fifty-five percent of Syracuse City's water supply is purchased from Weber Basin Water Conservancy District who is also facing major water supply issues due to the extended drought and limited resources. All six of the reservoirs within the Weber Basin Project – Echo, Rockport, Pineview, Causey, Lost Creek, and East Canyon – are at or below 51 percent as of September 2021. These water supply shortages throughout the state have

increased Syracuse City's determination to improve its storage capacity and supply sources in order to reduce its drought vulnerabilities.

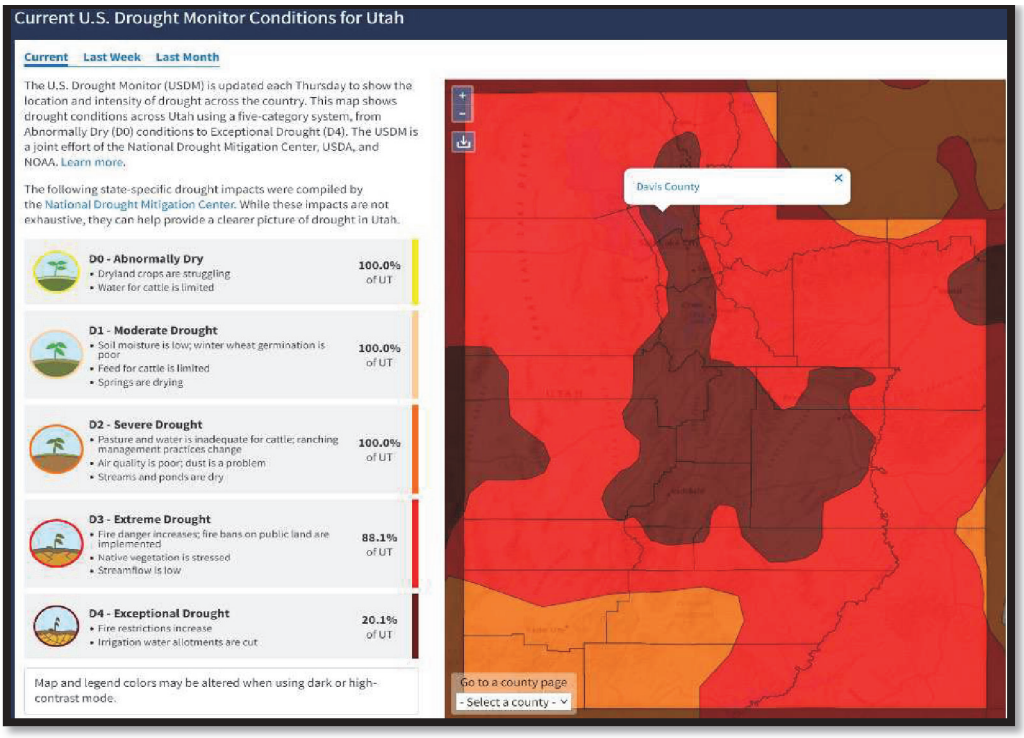
*Describe existing or potential drought conditions in the project area.*

- *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 state of Utah has experienced periods of water shortages since the pioneers first settled in Utah. Early droughts and development led to the creation of the Weber River Project, of which the Echo Reservoir largely staved off the fall of the local agricultural economy in Weber and Davis Counties in the lengthy drought of the 1930s. Precipitation fluctuates wildly in Utah, as evidenced by the 1950s drought that saw the same Echo Reservoir run dry. As the water demand continues to increase, even temporary shortages in supply can be disruptive to the normal process in urban and rural environments. Two or more consecutive years of a significant reduction in precipitation—particularly snowfall in the mountains—may have severe and far-reaching impacts.

Even though the demand for watering lawns is expected to triple by 2020 to 155,000 acre-feet a year, irrigation needs are projected to drop from 446,000 acre-feet to 328,000 acre-feet within that same time frame, with a projected surplus in municipal water in Weber and Davis Counties of 48,000 acre-feet.

The National Integrated Drought Information System (NIDIS) tracks historical as well as current drought conditions. As of September 28, 2021, 81 percent of Syracuse City is in Exceptional Drought conditions. Figure 1 below shows the current drought conditions for Davis County, obtained from the Utah Department of Natural Resources and the National Drought Mitigation Center at the University of Nebraska-Lincoln. The map indicates that all of Utah is in Severe Drought, with a majority of Syracuse City in Exceptional Drought.




- *Describe any projected increases to the severity or duration of drought 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).*

  If drought conditions persist in the state of Utah and the City of Syracuse has another winter this year without adequate water, they will have to drastically reduce outdoor watering and place restrictions on the largest commercial water users. While the City, and much of the western United States, hope for more snowpack in 2022, climate change projections generally indicate a reduction in this snow in future years. Snowpack has become an unreliable source of water, increasing the need for more water storage.

### *E.1.5. Evaluation Criterion E – 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.*

Environmental and Preliminary Design: August 2021 to September 2022
Final Design: March/April 2022.
Permitting: April 2022
Bid and Advertise: April/May 2022
Construction: June/July 2022 to April 2023
Final Reports and Project Closeout: November 2023/January 2024

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

The proposed project will require a city permit for road excavation, and the pump station will require a standard building permit and SWWPP.

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

The City has started a preliminary design. However, the need to change the storage reservoir location and size initiated an update to the Syracuse City Secondary Water Master Plan in June 2021 to accommodate the new reservoir location.

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

There are no required policies or administrative actions. The City has approved the Secondary Water Master Plan; and the Water Conservation Plan prepared, modeled, and prioritized the projects under the City Council's direction through a public meeting.

### *E.1.6. Evaluation Criterion F – Nexus to Reclamation (10 Points)*

*Describe the nexus between the proposed project and a Reclamation project or Reclamation activity. Please consider the following:*

- *Does the applicant have a water service, repayment, or O&M contract with Reclamation?*
  The applicant does not have a water service, repayment, or O&M contract with Reclamation.
- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*
  In 1949, the United States Congress authorized the Weber Basin Project, a Bureau of Reclamation multi-facility project, to develop and utilize available water resources within the Weber River Basin Drainage for irrigation, municipal and industrial uses, flood control, and hydroelectric power. Syracuse City receives approximately 55 percent of its culinary water from the Weber Basin Water Conservancy District (WBWCD), which was created in 1950 under the guidelines of the Utah Water Conservancy Act, and is responsible for operation and maintenance of the Weber Basin Project.
- *Will the proposed work benefit a Reclamation project area or activity?*
  The proposed project will benefit Reclamation's Weber Basin Project by reducing Syracuse City's dependence on WBWCD during drought years. Syracuse's additional secondary water storage will allow other stakeholders to receive some of the WBWCD water that was previously allotted to meet Syracuse City's culinary water needs.
- *Is the applicant a Tribe?*
  The applicant is not a Tribe.

## 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.*

Syracuse City will use its reserve account to fund the non-Federal share of project costs. The expectation is that the City will have the funds available within its reserve account for this project.

*Please identify the sources of the non-Federal cost share contribution for the project, including:*

- *Any monetary contributions by the applicant towards the cost-share requirement and source of funds (e.g., reserve account, tax revenue, and/or assessments).*
  The City will use funds from their reserve account and impact fees.
- *Any costs that will be contributed by the applicant.*
  N/A
- *Any third-party in-kind costs (i.e., goods and services provided by a third party).*
  N/A
- *Any cash requested or received from other non-Federal entities.*
  N/A
- *Any pending funding requests (i.e., grants or loans) that have not yet been approved and explain how the project will be affected if such funding is denied.*
  As stated above, the City will be using their reserve account and impact fees.

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

- *The project expenditure and amount.*
  N/A
- *The date of cost incurrence.*
  N/A
- *How the expenditure benefits the project.*
  N/A

## Budget Proposal

*Table 1 – Total Project Cost Summary*

| | |
|---|---|
| Costs to be paid by the applicant | $4,841,000 |

*Table 2 – Non-Federal and Federal Funding Sources Summary*

| | |
|---|---|
| 1. City Reserve Account | $4,841,000 |

*Table 3 – Budget Proposal*

| Budget Item Description | Computation | | Quantity Type | Total |
|---|---|---|---|---|
| | $/Unit | Quantity | | |
| Salaries and Wages | | | | $0.00 |

| | | | | |
|---|---|---|---|---|
| Fringe Benefits | | | | $0.00 |
| Travel | | | | $0.00 |
| Equipment | | | | $0.00 |
| Supplies and Materials | | | | $0.00 |
| Contractual/Construction | | | | $6,790,708 |
| Design | 8% | 1 | EA | $468,324.70 |
| Construction Engineering | 8% | 1 | EA | $468,324.70 |
| Mobilization | $400,000 | 1 | EA | $400,000 |
| Site Grading | $6.50 | 43,560 | CY | $283,140 |
| Reservoir Concrete Liner | $575 | 2,935 | CY | $1,687,625 |
| 24” RCP Supply from West Branch | $100 | 1,100 | LF | $110,000 |
| 24” Layton Canal Connection (Includes Mag Meter) | $150,000 | 1 | EA | $150,000 |
| 30” HDPE DR 17 Pipe | $250 | 725 | LF | $181,250 |
| 36” RCP from Bluff Pond (Clearfield Irrigation) | $120 | 5,500 | LF | $660,000 |
| Bedding | $50 | 2,084 | TON | $104,218.75 |
| Import Backfill | $30 | 15,932 | TON | $477,956.25 |
| Asphalt | $125 | 1,444 | TON | $180,468.75 |
| Pump Station Pad, Wet Well, Wall Partitions | $675 | 728 | SF | $491,400 |
| 10’ Split Face Wall | $550 | 108 | LF | $59,400 |
| Vertical Turbine Pump (2,000 gpm, 260’ TDH, 1800 rpm) and Motor (200 hp, ODP, inverter duty) | $90,000 | 4 | EA | $360,000 |
| 36” Mag Meter and Vault | $75,000 | 1 | EA | $75,000 |
| Electrical Building | $600 | 256 | SF | $153,600 |
| Mechanical Piping | $50,000 | 1 | EA | $50,000 |
| Site Piping, Valves, Fittings | $50,000 | 1 | EA | $50,000 |
| Electrical Service Entrance | $250,000 | 1 | EA | $250,000 |
| Rocky Mountain Power 3-Phase Service Extension to Site | $100,000 | 1 | EA | $100,000 |
| SCADA/telemetry | $30,000 | 1 | EA | $30,000 |
| Other | | | | $50,000 |
| Environmental | $50,000 | 1 | EA | $50,000 |
| | | | Total Direct Costs | $6,841,000 rounded) |
| Indirect Costs | | | | |
| Type of Rate | Percentage | $base | | $0.00 |
| | | | Total Estimated Project Costs | $6,841,000 |

## Budget Narrative

*Salaries and Wages*

No Syracuse City staff salaries or wages are included in the project budget. All services will be contracted. The City's staff time will be over and above the project's cost.

*Fringe Benefits*

No fringe benefits will be required.

*Travel*

No travel will be necessary.

*Equipment*

Equipment will be included in the contracted portion of the project.

*Materials and Supplies*

Materials and supplies will be included in the contracted portion of the project and documented as required.

*Contractual*

To determine unit costs included in the cost estimate for this project, Syracuse City relied upon the Syracuse City Secondary Water Master Plan and Impact Fee Facilities Plan updated in 2021. Contract unit prices from similar projects recently completed were used by the engineering firm to estimate those costs. Syracuse City followed its procurement process and procured consulting services before applying for these funds. They will bid the construction portion of the project to several prequalified construction companies. The contractual costs are estimates for each component to build the reservoir and pump station and install all the pipe and equipment. Generally, the low bidder will be selected based on a determination of acceptable qualifications.

*Third-Party In-Kind Contributions*

No third-party in-kind contributions are included.

*Environmental and Regulatory Compliance Costs*

It is expected to take $50,000 to evaluate the required information, prepare the report, and update any changes required from Reclamation. The cost is based on past project environmental reviews. However, if Reclamation considers this project possible for a categorical exclusion (CE), Reclamation could prepare the CE as they have in the past.

*Other Expenses*

No other expenses are included.

*Indirect Costs*

No indirect costs are included.

*Total Costs*

## Environmental and Cultural Resources Compliance

*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.*

Impacts will be those associated with building a reservoir and pump station and installing HDPE connecting pipe.

*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?*

Syracuse City is not aware of any impacts concerning threatened or endangered species in this 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.*

Syracuse City is not aware of any impacts to wetlands in this area.

*When was the water delivery system constructed?*

The Syracuse City secondary water system was built in the 1980s.

*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.*

N/A

*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.*

According to the National Register of Historic Places, there are no locations listed in the City of Syracuse. However, a cultural resource inventory will be completed as part of the submitted environmental document.

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

The City of Syracuse is not aware of any impacts to or locations of archeological sites.

*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.

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

No, the 2700 Secondary Water Reservoir and Pump Station will not limit access to or impact 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 species.

## Required Permits and Approvals

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

The proposed project will require a city permit for road excavation, and the pump station will require a standard building permit and SWWPP.

## Existing Drought Contingency Plan

*If there is an existing drought contingency plan addressing the relevant geographic area, please attach a copy (or relevant sections) of the existing plan. (Note, this will not count against the application page limit.)*

Yes, please see Attachment B – Syracuse City Water Conservation Plan.

## Letters of Project Support and Letters of Partnership

*Please include letters from interested stakeholders supporting the proposed project. To ensure your proposal is accurately reviewed, please attach all letters of support/ partnership letters as an appendix. Letters of support received after the application deadline for this NOFO will not considered in the evaluation of the proposed project.*

Letters of support from the following can be found in Attachment C— Letters of Support:

- Davis and Weber Counties Canal Company (DWCCC)
- Weber Basin Water Conservancy District (WBWCD)

## Official Resolution

*Include an official resolution adopted by the applicant's board of directors or governing body, or, for State government entities, an official authorized to commit the applicant to the financial and legal obligations associated with receipt of a financial assistance award under this NOFO. If the applicant is unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted to mailto:bor-sha-fafoa@usbr.gov up to 30 days after the application deadline.*

The Official Resolution for Syracuse City will be submitted within 30 days of the application deadline.

## CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

| | |
|---|---|
| * APPLICANT'S ORGANIZATION | Syracuse City Corporation |
| * PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE | |
| Prefix: | Mr. |
| * First Name: | Robert |
| Middle Name: | |
| * Last Name: | Whiteley |
| Suffix: | |
| * Title: | Public Works Director |
| * SIGNATURE: | Robert Whiteley |
| * DATE: | 10/04/2021 |

Davis and Weber Counties Canal Company
138 West 1300 North ▲ Sunset, Utah 84015-2918 ▲ Office: (801) 774-6373 ▲ Fax: (801) 774-5424 ▲ davisweber.org

September 22, 2021

Mr. Robert Whiteley, P.E.
Syracuse City Public Works Director
3061 S. 2400 W.
Syracuse, UT 84075

Dear Robert,

Davis and Weber Counties Canal Company (DWCCC) is pleased to support Syracuse City's efforts to develop a Drought Resiliency Project under the Bureau of Reclamation's WaterSMART Drought Resiliency Projects program. We understand and appreciate the importance of constructing a secondary water reservoir and booster pump station in order to increase your system's resilience to the ongoing extreme drought conditions in our region of Utah. We recognize the need for this infrastructure to provide Syracuse City's entire service area access to sufficient storage and more reliable water delivery during times of water shortage and drought.

DWCCC supplies the majority of Syracuse City's untreated water for its secondary water system. As senior water right holders on the Weber River system with large storage facilities, DWCCC strives to have a resilient system to endure drought situations. Additional secondary water storage will allow the City to adjust inflows as needed and endure potential interruptions of service, providing a more resilient system to their residents.

We strongly support your grant application and appreciate the advancements it will make in drought resiliency and water supply for Syracuse City.

Sincerely,
Davis and Weber Counties Canal Company

Rick Smith

Richard (Rick) D. Smith, P.E.
General Manager

# WEBER BASIN WATER CONSERVANCY DISTRICT

2837 East Highway 193 • Layton, Utah 84040 • Phone (801) 771-1677 • SLC (801) 359-4494 • Fax (801) 544-0103


September 24, 2021



Robert Whiteley, Public Works Director
Syracuse City
3061 S 2400 W
Syracuse, Utah 84075

Dear Mr. Whiteley,

Weber Basin Water Conservancy District (WBWCD) is pleased to support the City's effort to develop a Drought Resiliency Project under the Bureau of Reclamation's WaterSMART Drought Resiliency Projects program. WBWCD understands and appreciates the importance of constructing a secondary water reservoir and booster pump station in order to increase your system's resilience to the ongoing extreme drought conditions being felt across the state of Utah. WBWCD understands that the need for this infrastructure is important as it will provide Syracuse City's entire service area access to sufficient storage and more reliable water delivery during times of water shortage and drought.

WBWCD delivers irrigation water to Syracuse City through the piped Layton Canal which is then used for secondary purposes within the city. WBWCD irrigation operators coordinate with Syracuse City to determine water deliveries throughout the irrigation season.

As the regional water supplier within the Ogden and Weber River drainages, WBWCD provides a wide variety of water supplies within the community and is continually developing new strategies to conserve our water and extend existing supplies.

WBWCD strongly support this grant application and appreciates the advancements it will make in drought resiliency and water supply for Syracuse City.

Sincerely,

Scott Paxman

Scott W. Paxman, PE
Assistant General Manager/CTO

SWP/bb