JORDAN VALLEY WATER
CONSERVANCY DISTRICT

Building Drought Resilience Through Increased Groundwater Production Capacity and Aquifer Storage & Recovery

PROJECT APPLICANT

Jordan Valley Water
Conservancy District
8215 South 1300 West
West Jordan, UT, 84008

PROJECT CONTACT PERSON

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801-565-4300

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D.2.2.4 Technical Proposal and Evaluation Criteria

1. Executive Summary

June 15,2022
Jordan Valley Water Conservancy District
West Jordan, Salt Lake, Utah
Applicant Category: A

Jordan Valley Water Conservancy District (JVWCD) plans to construct two new groundwater well pump stations to reduce its reliance on surface water sources during drought. The development of these two new groundwater wells will also facilitate greater utilization of existing JVWCD artificial groundwater recharge facilities. The two new wells will replace and expand the production capacity of two nearby existing wells which are equipped as dual purpose injection and recovery wells. The existing wells will be re-purposed to operate exclusively as injection wells which will facilitate greater injection volumes into the aquifer. As Utah enters its second year of severe drought, JVWCD anticipates that these mitigation measures will reduce groundwater capacity limitations and increase available water storage for JVWCD. This project has been prioritized in JVWCD's official Drought Contingency Plan as well as in its 10-year Capital Projects Plan.

Project Length and End Date

The project period described in this application will begin in the fourth quarter of 2022 and is expected to be completed by the fourth quarter of 2024.

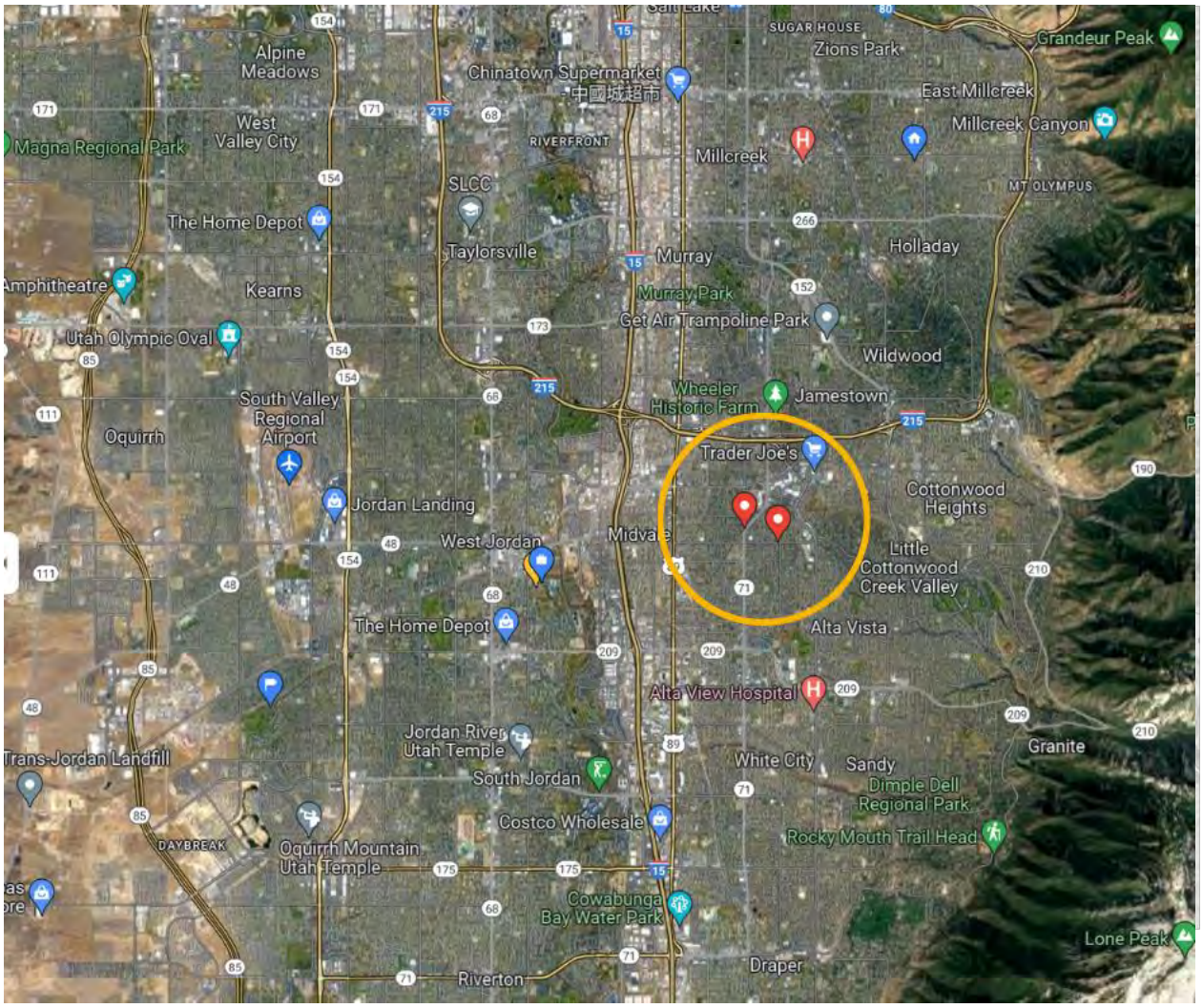
Federal Facilities

Work for the proposed project will not take place on a federal facility.

2. Project Location

This project includes construction of well pump stations at the following locations:

- 987 East 7800 South, Midvale, UT
- 7600 South 700 East, Murray, UT



New production well

987 East 7800 South

Existing injection/recovery well to be converted to injection well

Well casing of new well

New production well

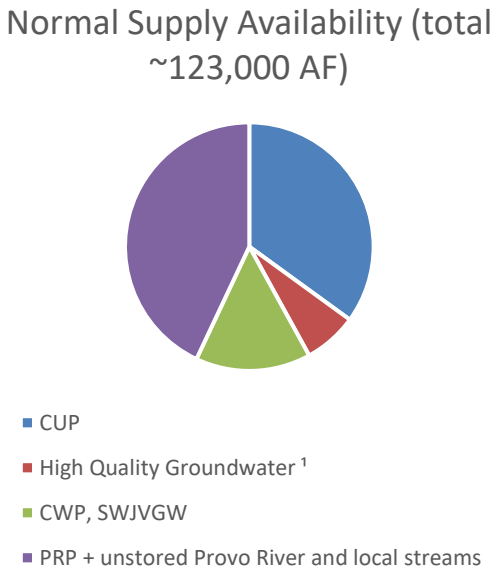
7600 South 700 East

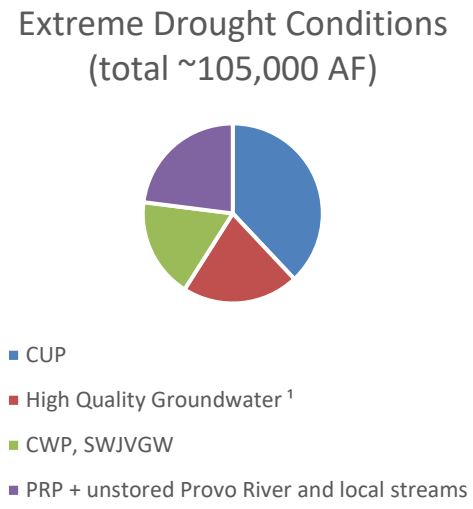
Existing injection/recovery well to be converted to injection well

Well casing of new well

3. Technical Project Description

JVWCD has a diverse portfolio of water resources it uses to deliver critical drinking water supplies to its wholesale member agencies and retail customers. The water resources include Central Utah Project (Jordanelle Storage), Provo River Project (Deer Creek Storage), Provo River unstored flows, Salt Lake Valley high quality groundwater[1], local unstored mountain streams, purchased Central Water Project, and SWJVGW Project (low quality groundwater with reverse osmosis treatment). JVWCD conjunctively manages its surface and groundwater supplies, reducing groundwater production during normal precipitation years and increasing groundwater production during drought years. The charts below show the general water supply utilization strategy employed by JVWCD.





In 2001, JVWCD completed construction of artificial groundwater recharge facilities to improve the sustainability and capacity of its groundwater resources. The facilities included drilling and equipping six new dual-purpose injection and recovery wells and retrofitting eleven existing production wells with injection equipment. JVWCD maintains an Underground Injection Control permit for its artificial recharge facilities. The proposed project will replace and increase the production capacity of two existing wells (1000 East 7800 South and 7700 South 700 East) with new wells at 987 East 7800 South and 7600 South 700 East. The two existing wells will be re-purposed to operate exclusively as injection wells.

[1] High quality groundwater does not require any treatment before introduction into JVWCD distribution system other than fluoride and chlorine to maintain an adequate chlorine residual in the system.

In the past, JVWCD injection operations have shown to reduce the production capacity of some of the dual-purpose injection/recovery wells. This risk of reducing well production capacity has significantly limited the operation of the JVWCD Aquifer Storage and Recovery (ASR) facilities. The proposed project will construct two new production wells and convert the existing injection/recovery wells to injection only wells to eliminate the risk of reduced production capacity due to injection operations.

During normal water supply conditions, JVWCD will artificially recharge the aquifer through injecting into ASR injection wells. This will improve the reliability of the aquifer source and a "bank" of injected water will be available to draw upon in a future time of need. During extreme drought conditions, JVWCD will withdraw from the "bank" to supplement the native groundwater resource.

The casing and screens for the two new production wells were previously constructed and the project scope will consist of designing and installing pumping equipment, buildings, and site improvements at each of the two new wells. The estimated total project cost for the proposed project is $6,415,285.

4. Performance Measures

The success of JVWCD's project will be measured using the two metrics identified below:

- **Increased Well Field Production Capacity:** This project is intended to increase reliable well field production capacity by 3 million gallons per day.

- **Increased Aquifer Storage**: This project will allow JVWCD to increase the amount of water injected into aquifer storage by 540 AF per year during those years that there are sufficient supplies available for injection. Injections are currently limited due to operation restraints of JVWCD's dual-purpose injection and recovery wells.

E.1 Evaluation Criteria

Evaluation Criteria A—Project Benefits

Building long-term drought resiliency:

Water supply shortages during drought can occur in two ways. Either source water yields are lower than annual water demand or supply production capacity is lower than the peak day maximum demand. The proposed project builds long-term drought resiliency for JVWCD's

service area by mitigating impacts of both types of water supply shortages.

First, the addition of new wells will increase JVWCD's ability to meet water demands during peak season. And second, the additional well capacity will allow JVWCD to reduce its reliance on surface water sources during drought by storing additional water in its aquifer recovery system.

How many years will the project continue to provide benefits?

Following project completion, JVWCD will realize the benefit of increased drought resiliency for the life of the new wells, which is approximately 75 years.

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.

This proposed project will increase well field production capacity by 3 million gallons per day. JVWCD typically operates its high-quality groundwater wells for approximately 90 days per year to support peak season demands. 3 MGD additional capacity operated for 90 days is approximately 840 AF per year. The project will also facilitate increased injection volumes of approximately 540 AF per year during normal water supply conditions. This amount of artificial groundwater recharge can supplement the native groundwater resource by up to 2,000 AF per year drought conditions.

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

The project will increase the reliable peak day capacity by 3 MGD which is approximately 2% of JVWCD peak day demands. The project will also increase the reliable annual yield during extreme drought conditions by 2,840 AF per year which is approximately 3% of the JVWCD.

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

The access to additional drought resilient source options will reduce reliance on JVWCD's Central Utah Project and Provo River Water Sources during drought. Because the Central Utah Project currently makes up 40% of JVWCD's supply portfolio, the water provided through this project will contribute significantly to reducing JVWCD's vulnerability to drought.

Will the project improve the management of water supplies?

This mitigation measure has the potential to reduce groundwater capacity limitations, supports managing uncertainty in water rights allocations, and supports maintaining sustainable yield as determined by the State Engineer. The ability to draw upon more climate-resilient sources

rather than surface water sources will also improve JVWCD's ability to deliver water during drought.

How will the project increase efficiency or operational flexibility?

This project will increase peak season production capacity from the well field and can help offset impairments to surface water sources due to drought. The additional ASR capacity will also allow JVWCD to better store water during wet years to sustain water needs during drought. If earlier runoffs are predicted, JVWCD could also use ASR to store water flows for later in the season when it is needed.

What is the estimated quantity of water that will be better managed as a result of this project?

This proposed project will facilitate enhanced aquifer storage and recovery. JVWCD currently stores 0-500 AFY in its aquifers and typically withdraws most or all of that quantity within the same year. This project is planned to more than double the quantities of water injected. Over a ten year period, there is typically five years of sufficient supply to operate the injection wells so the project will facilitate injection of approximately 2,700 AF over a ten year period.

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

Please refer to response to previous questions.

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

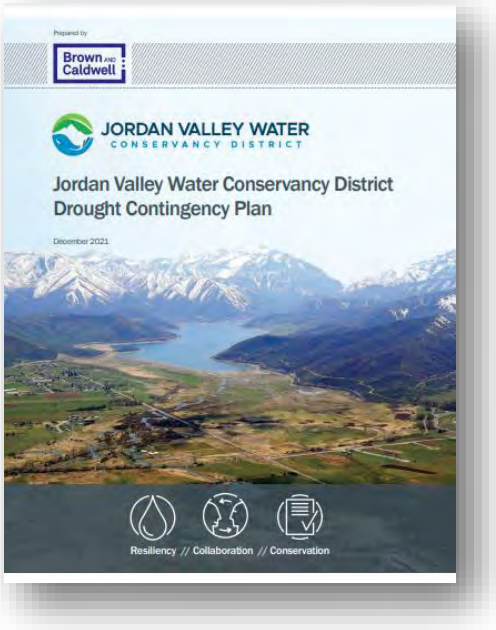
JVWCD's system has the highest potential for drought vulnerability from surface water sources including Utah Lake, Jordan River, and Mountain streams. Because this project will provide greater flexibility for JVWCD to use more climate-resilient groundwater sources, a significant reduction in supply vulnerabilities is anticipated. Additionally, JVWCD's ability to use ASR for water storage means that water from early runoff can be better stored for use later in the season when it is needed.

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

Artificial groundwater recharge is not widely practiced in Utah. Although JVWCD constructed significant artificial groundwater recharge facilities in 2001, operational challenges (e.g., well plugging that reduced capacity of production wells) have limited actual operations. The proposed project will enable injection of greater quantities and will produce more operational experiences which can be shared with water managers.

Evaluation Criterion B—Drought Planning and Preparedness

JVWCD's Official Drought Contingency Plan (DCP) can be accessed at https://jvwcd.org/public/highlights



How JVWCD's DCP addresses drought:
This DCP supports JVWCD's efforts to build drought resilience for the communities it serves. The planned drought mitigation measures presented in this DCP, the formation of the annual Drought Monitoring Committee, and the identified drought response actions will help reduce JVWCD's drought vulnerabilities and provide a base for JVWCD's future decision making.

Elements of JVWCD's Drought Contingency Plan:
JVWCD's Drought Contingency Plan includes a system for drought monitoring, a vulnerability assessment, prioritized mitigation actions, and response actions that correlate to different stages of drought.

Stakeholder Input and Collaboration:
Throughout its planning process, JVWCD provided opportunities for input and discussion from a task force that included individuals representing municipal and industrial (M&I), agricultural, recreational, and environmental interests. A Stakeholder Outreach Group was also created that included representatives from across JVWCD's service area.

Workshops to present and discuss key milestones in DCP development and content were held with both groups, and DCP sections were provided for review and comment. JVWCD also provided the DCP for review and comment to its 17 Member Agencies.

JVWCD presented the DCP during its public Executive Committee Meeting held on August 09, 2021. Opportunities for public comment were given during JVWCD's subsequent regular Board Meetings.

Climate Change Considerations: Does the drought plan include consideration of climate change impacts to water resources or drought?

Yes, climate change we evaluated as a risk factor during JVWCD's drought vulnerability assessment. JVWCD recognizes that climate may impact the timing or method of source water delivery. Because of this, supplies need to be resilient and flexible. JVWCD also considered the potential impact on water supply due to climate change, including greater evapotranspiration, changes in precipitation, reduction of snowpack, water quality impacts, and increases in water demand. Climate change impacts are anticipated to exacerbate existing extreme weather events, including drought.

Support for the Proposed Project: Describe how your proposed drought resiliency project is supported by and existing drought plan. Does the drought plan identify the proposed project as a potential mitigation or response?

The proposed project includes two separate mitigation actions prioritized in JVWCD's DCP. These mitigation efforts were designed to relieve pressure on JVWCD's most vulnerable supply sources while mitigating the greatest risk factors identified in the plan's vulnerability assessment.

Does the proposed project implement a goal or need identified in the drought plan?

Yes, the proposed project mitigation measures that were prioritized in the DCP to relieve pressure on JVWCD's most vulnerable supply sources. The table below shows all the mitigation measures included in the DCP. JVWCD is seeking funding for the highlighted measures through this application.

Table 5-3. Shortlist of Prioritized Mitigation Measures		
Mitigation Measure Number	Mitigation Measure Name	Weighted Total Score[a]
Cons&DM-03	Secondary Water Metering	2.35
Cons&DM-04	Enhanced Advanced Metering Infrastructure (AMI) program analytics	2.50
Cons&DM-06	Customer Rebate Programs	2.35
Cons&DM-10	Landscape Leadership Grant Program	2.20
Cons&DM-11	Member Agency Grant Program (multiple funding tiers)	2.25
Conv-02	Enclose canals to reduce seepage and evaporation losses	2.3
GWMgnt-02	JVWCD Aquifer Storage & Recovery (ASR) operational expansions	2.40
GWMgnt-06	New shallow groundwater wells	2.20
NewSup-03	Develop high quality groundwater wells	2.25
NewSup-08	Begin taking delivery of ULS supply by 2030 or earlier	2.25
NewSup-06	Member Agency wastewater reuse projects for secondary irrigation water	2.20
Agr&Reg-02	Defining actions for drought contingency provisions in wholesale water purchase agreements and retail water service agreements	2.25
Agr&Reg-07	Evaluate effectiveness of using conservation-based water rates in the service area.	2.15
Stor-01	Evaluate storage for secondary irrigation systems using Provo River spring runoff and West Side Mountain Streams	2.15
WSPro&Mgnt-03	Watershed-based management with stakeholders	2.35

a. *Maximum Weighted Total Score = 3.00*

How is the proposed project prioritized in the drought plan?
Initially, a total of 49 potential mitigation measures were compiled. Evaluation criteria were established to score and rank each measure to create a shortlist of 15 highest ranked mitigation measures. The two measures included in this project proposal were both ranked within the top 15 needed mitigation measures.

Evaluation Criterion C—Sustainability and Supplemental Benefits

Additional Environmental Benefits:

The lower Provo River is designated as a critical habitat for the June Sucker, an endangered species endemic to Utah Lake. Current recovery projects for this species are closely related to the water quality, quantity, and hydrology of Utah Lake and its tributaries. When surface water supplies are strained during drought, habitats and natural life cycles can be damaged. Water quality degradation due to drought can also cause adverse impacts to ecosystems.

JVWCD's proposed project will reduce strain on surface water sources during drought, protecting needed water for this endangered species.

Evaluation Criterion D—Severity of Actual or Potential

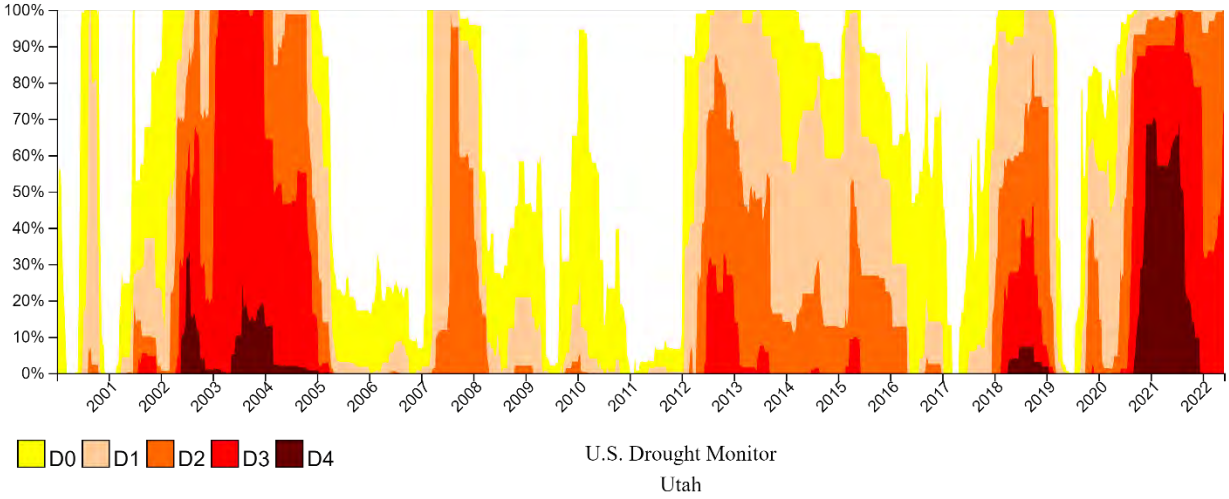
Drought Impacts to be addressed by the Project

Over the last 135 years there have been seven periods of extended drought along the Wasatch Front, where 80 percent of Utah's population lives. Recently completed tree-ring reconstructive studies have forecasted that Utah will likely face even more severe and longer-term droughts in the future.

While previous drought periods have created significant public-health risks that have threatened state economic growth and placed restrictions on agricultural users and recreational activities, future impacts are expected to be even more severe.

A significant risk associated with the anticipation of more frequent droughts occurring shortly after one another, is the inability of reservoirs to recharge between dry periods.

The chart below highlights drought patterns from recent years, including D4 (Exceptional Drought) conditions that have been accompanied by widespread crop failures and water emergencies.



Potential Drought Impacts:

The following table outlines some of the drought impacts that may be experienced within JVWCD's service area across multiple sectors. Additional impacts are outlined below.

Table 4-5. Drought Impacts Across Sectors				
Risk Factor and Drought Impact	M&I	Environmental	Agriculture	Recreation
Dry Year Supply Limitations				
Supply limitations due to in-stream flow requirements	x	x	x	x
Groundwater production capacity limitations and supply reduction	x		x	
Climate Change				
Early runoff pattern	x	x	x	x
Reduced reservoir levels	x	x	x	x
Reduced stream flows	x	x	x	x
Increased evapotranspiration	x	x	x	x
Regulatory, environmental, and water rights constraints				
Reduction of contracted water exchanges	x		x	
Increased State and Federal regulation on supply sources to support environmental flows	x	x	x	x
Cost constraints and affordability				
Rising water rates	x		x	
Source water quality degradation				
Water quality impacts from anthropogenic sources (chemical spill, urbanization)	x	x	x	x
Water quality impacts from wildfires	x	x		
Increased occurrence of algal blooms and algae by-products	x	x	x	x
Increased nutrient levels	x	x	x	
Increased water temperatures	x	x		x
Asset/Facility Susceptibility to Disruption				
Asset damage from seismic events	x		x	x
Asset failure due to aging infrastructure	x		x	

Water Quality:
In 2016, after several years of drought conditions that started in 2012, Utah Lake dropped to levels causing the Utah State Engineer to prohibit diversions of more than 100,000 acre-feet (AF) of junior water right holders in Utah Lake. The low water levels also intensified a wide-spread algal bloom in Utah Lake, prompting public health advisories. Declining water levels and algal blooms caused by drought conditions are a chronic issue that may become worse as droughts intensify.

Premature snowmelt:
Premature snowmelt resulting in inefficient conversion of snowmelt runoff to reservoir inflow occurred between 2000-2004 during a drought that effected most Utah watersheds. This is an example of what could be expected to continue with increasing temperatures. Other impacts include potential increase in the rate of evapotranspiration due to increased temperatures, shifting timelines for snow runoff, as well as an increase in the intensity of rainfall events.

Water Availability:
The M&I sector relies on each water source in the JVWCD portfolio, and the various assets used to store, convey, or treat the water. Any form of disruption to these sources can heavily impact this sector.

Agricultural:
Groups within this sector rely on quality water, free of high salinity concentrations or toxic algae byproducts. Impacts to the water quality due to drought can quickly interrupt water sources that this sector relies on. The previously mentioned 2016 algal blooms in Utah Lake that prompted secondary water systems to shut down are an example of this.

Without the ability to use these secondary water systems, this sector's demand on the JVWCD system increased. These events can trigger further economic hardship to agriculture groups due to raising water rates or loss of agricultural products and income.

Recreation: The sources within the project area are home to various recreational interests including bird watching, fishing, sail boating, swimming, kayaking, hunting, and water skiing. Reservoir levels and river levels are reduced during times of drought, which can limit recreational activities. Additionally, degraded water quality may cause recreation area closures to protect public health. Recreational closures already regularly occur due to harmful algae blooms. The Utah Department of Environmental Quality has established a recreational water monitoring program to facilitate recreational closures and protect the public.

Evaluation Criterion E—Project Implementation

Estimated Project Schedule:

- Design: Third Quarter 2022 – First Quarter 2023
- Environmental & Cultural Resources Compliance: Third Quarter 2022 – First Quarter 2023
    - Both new wells will be constructed on property already owned by the applicant in a developed area of Salt Lake County with no anticipated impact to environmental or cultural resources.
- Permitting: Building permits for new well pump buildings: First Quarter 2023.
    - Operation of artificial groundwater recharge injection wells requires an Underground Injection Control (UIC) permit issued by the Utah Division of Water Quality. The applicant already has a UIC permit.
- Construction and Installation: First Quarter 2023 – Fourth Quarter 2024
    - JVWCD plans to have the two new wells operational by the end of calendar year 2024.

Describe any permits that will be required, along with the process for obtaining such permits.
Building permits for new well pump buildings will be required by Midvale City. Operation of

artificial groundwater recharge injection wells requires an Underground Injection Control (UIC) permit issued by the Utah Division of Water Quality. The applicant already has a UIC permit.

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

The applicant will retain the services of a consulting engineering firm to prepare construction drawings and specifications for the work to construct the new well pump stations including pumping equipment and site improvements. The engineering services will also include services during construction (e.g. inspection, submittal review and approval, etc.)

Describe any new policies or administrative actions required to implement the project.
There are no new policies or administrative actions that will be required to implement this project.

Evaluation Criterion F—Nexus to Reclamation

JVWCD is the largest petitioner of the Central Utah Project's Bonneville Unit M&I water, contracting to receive more than 70,000 acre-feet annually. As a major stockholder in the Provo Reservoir Water Users Company, JVWCD also receives deliveries associated with a substantial portfolio of water rights, including Deer Creek Reservoir storage rights (a Reclamation project facility constructed as part of the Provo River Project), direct flow water rights in the Provo and Weber rivers systems, and Echo Reservoir storage rights on the Weber River (a Reclamation project facility constructed as part of the Weber River Project). Water pumped and stored through this project will benefit surface water supplies in the above listed reclamation systems.

D.2.2.5 Project Budget

1. Funding Plan

This project has been included in JVWCD's 10-year Capital Projects Plan. No additional third-party or federal funding is being sought for this project. The budget proposal does not include any costs incurred prior to the project period.

Table 1.—Total Project Cost Table

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	$3,200,000
Costs to be paid by the applicant	$3,215,000
Value of third-party contributions	N/A
TOTAL PROJECT COST	**$6,145,000**

2. Budget Proposal

BUDGET DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	$/UNIT	QUANTITY		
1. Install/construct pump equipment, well pump station building, and site improvements at 987 East 7800 South		1	LS	$2,400,000
2. Install/construct pump equipment at 7600 South 700 East		1	LS	$2,400,000
3. Engineering design and construction management service		1	LS	$720,000
4. Contingency and misc. expenses		1	LS	$625,000
TOTAL DIRECT COSTS				**$6,145,000**
Indirect Costs				
TOTAL ESTIMATED PROJECT COSTS				**$6,145,000**

3. Budget Narrative

The project budget is based on the estimated construction cost to construct/install pump equipment, well pump building and site improvements. JVWCD has constructed similar facilities in the past and has indexed the actual costs of the previous projects to 2022 conditions. The budget also includes costs for consulting an amount for contingency and miscellaneous expenses. JVWCD will commit engineering staff time to manage the project but is not seeking reimbursement of its internal project management costs.

D.2.2.6 Environmental and Cultural Resources Compliance

Will the proposed project impact the surrounding environment?

No, JVWCD does not anticipate any environmental impacts from this project.

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? Would they be affected by activities

associated with the proposed project?

No. There are no endangered species or critical habitats located on sites affected by the proposed project. However, reducing demand on surface water sources will allow additional water to be made available for Provo River instream fishery flows and can assist in recovering the June Sucker, an endangered species.

Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?"
No, the identified sites for this project do not impact any wetlands or surface waters.

When was the water delivery system constructed?
Construction of JVWCD's infrastructure started in 1951 and has been added to annually since then. For more details about or a timeline of construction of our delivery system, contact Megan Jenkins at meganh@jvwcd.org.

Will the proposed project result in any modification of or effects to, individual features of an irrigation system?
No, this project does not involve in any modifications to irrigation systems.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?
No. While historic sites are located within JVWCD's service area, the proposed project will occur on selected sites that will have no adverse effect on any building, structure or feature listed or eligible for listing on the National Register of Historic Places.

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. This project will benefit all residents in Jordan Valley Water's service area with additional access to water and improved drought resiliency.

Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?
No Indian sacred sites or tribal lands will be impacted by this project.

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. This program will not involve any landscaping that could contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species.

D.2.2.7 Required Permits or Approvals

JVWCD will obtain all needed building permits required for this project. JVWCD already maintains an Underground Injection Control permit issued by the Utah Division of Water Quality for the operation of the artificial groundwater recharge facilities.

D.2.2.8 Existing Drought Contingency Plan

A web link to JVWCD's drought contingency plan was included in the technical proposal. Sections talking about the specific mitigation measures included in this proposal are attached as Appendix A.

D.2.2.9 Letters of Support and Letters of Partnership

Letters of Support have been attached with this application.

D.2.2.10 Official Resolution

Resolution of the Board of Trustees

JORDAN VALLEY WATER CONSERVANCY DISTRICT

RESOLUTION NO. 22-09

AMENDING AN APPLICATION FOR A WATERSMART DROUGHT RESILIENCY PROJECT

WHEREAS, the Jordan Valley Water Conservancy District ("Jordan Valley") has a diverse portfolio of water supplies for existing and future customers in its service area;

WHEREAS, severe drought conditions may reduce the reliability of Jordan Valley water supplies, and may result in economic damage to water users within its service area;

WHEREAS, the United States Department of Interior, Bureau of Reclamation (USBR), under its WaterSMART Program, has made available to qualifying applicants grant funding for drought resiliency projects; and,

WHEREAS, Jordan Valley has prepared an application for the USBR WaterSMART Drought Resiliency Projects grant program; and,

WHEREAS, Jordan Valley previously received USBR WaterSMART grant funding to assist with the preparation of a Drought Contingency Plan (Plan); and,

WHEREAS, Jordan Valley completed and adopted its Plan, and the Plan has been approved by USBR; and,

WHEREAS, the Plan identified mitigation measures which are preemptive actions Jordan Valley can take to increase its resiliency against droughts; and,

WHEREAS, Jordan Valley has budgeted for and intends to complete a new groundwater development project which addresses two mitigation measures identified in the Plan (develop additional high quality groundwater and operational expansion of Jordan Valley ASR facilities); and,

NOW, THEREFORE, BE IT RESOLVED by the Jordan Valley Water Conservancy District Board of Trustees:

1. Jordan Valley's General Manager will submit to the United States Bureau of Reclamation a WaterSMART Grant Application prior to the deadline of June 15, 2022.

2. If Jordan Valley's Grant Application is selected for funding under the WaterSMART Grant Program, (i) the General Manager of Jordan Valley is authorized to negotiate a satisfactory cooperative agreement with the Bureau of Reclamation and provide the funding amounts specified in the WaterSMART Grant Proposal; and (ii) the General Manager is authorized to execute that contract on behalf of Jordan Valley; and,

3. This Resolution shall take effect immediately upon execution by an authorized member of the Board.

PASSED, ADOPTED, and APPROVED this 8th day of June, 2022.

Corey L. Rushton
Chair of the Board of Trustees

ATTEST:

Barton A. Forsyth
Clerk

GRANGER-HUNTER
IMPROVEMENT DISTRICT

2888 South 3600 West • P.O. Box 701110 • West Valley City, Utah 84170-1110 • Phone (801) 968-3551 • Fax (801) 968-5467 • www.ghid.org

June 13, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

Granger-Hunter Improvement District appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan: developing additional high-quality groundwater and expanding the operation of the JVWCD artificial groundwater recharge facilities.

Granger-Hunter Improvement District relies on JVWCD for approximately 75% of our drinking water supplies and it is important that new supplies be developed that are drought-resilient. We support JVWCD's application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

Jason Helm, P.E.

General Manager
Granger-Hunter Improvement District
2888 South 3600 West
West Valley City, UT 84119

June 13, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

Midvale City appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities). Midvale City relies on JVWCD for approximately 50% of our drinking water supplies. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support the application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

Jerimie Thorne

Midvale City, Deputy Director of Public Works

RIVERTON
UTAH

Public Works Department Water Division

June 14, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

Riverton City appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan).

We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities).

Riverton City relies on JVWCD for 100% of our drinking water supplies. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support the application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

Stacie Olson
Water Manager

SOUTH JORDAN
UTAH

PH: 801.446-HELP @SouthJordanUT

June 13, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

The City of South Jordan appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities). The City of South Jordan relies on JVWCD for 100% of our drinking water supplies. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support the application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

Jason Rasmussen
Public Works Director

Taylorsville-Bennion Improvement District

June 10, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

Taylorsville-Bennion Improvement District appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities). Taylorsville-Bennion Improvement District relies on JVWCD for approximately 35% of our drinking water supplies which help provide water to over 70,000 residents. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support their application for a USBR WaterSMART Drought Resiliency Project grant. JVWCD's resiliency is vital and has a direct and major impact on our ability to provide this critical resource to our customers.

Sincerely,

Mark Chalk
General Manager / CEO
Taylorsville-Bennion Improvement District

1800 West 4700 South • PO Box 18579 • Taylorsville, Utah 84118 (801) 968-9081 company@tbid.org

WATERPRO INC.
A Draper Irrigation Company

June 13, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

WaterPro Inc. appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities). WaterPro Inc. relies on JVWCD for approximately 15% of our drinking water supplies. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support the application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

Steve Cunningham
Assistant General Manager

12421 South 800 East / PO Box 156 / Draper, UT. 84020 / T: 801-571-2232 / F: 801-571-8054 / www.waterpro.net

City of West Jordan
Public Works - Utilities
7960 South 4000 West
West Jordan, UT 84088
(801) 569-5000 or (801) 569-5077

June 13, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

The City of West Jordan appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities). The City of West Jordan relies on JVWCD for approximately 90% of our drinking water supplies. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support the application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

Greg Davenport

Greg Davenport, P.E.
Utility Manager
City of West Jordan

USBR Water Smart Drought Resiliency Project Grant

Greg Anderson <ganderson@kearnsid.org>
Today, 12:33 PM
Alan Packard

Reply all

June 14, 2022

Alan Packard, Assistant General Manager
Jordan Valley Water Conservancy District
8215 South 1300 West
West Jordan, Utah 84088

Subject: Letter of support for JVWCD application for FY2023 USBR Water SMART Drought Resiliency Project Grant – New wells at 927 East 7800 South and 7600 South 700 East Project

Dear Alan,

Kearns Improvement District appreciated the opportunity to participate as a stakeholder in the development of the Jordan Valley Water Conservancy District Drought Contingency Plan (Plan). We support JVWCD's efforts to implement the Plan including two important mitigation measures identified in the Plan (develop additional high-quality groundwater and expand the operation of the JVWCD artificial groundwater recharge facilities). Kearns Improvement District relies on JVWCD for approximately 95% of our drinking water supplies. We depend on JVWCD to strengthen the resiliency of its water supplies to withstand future droughts and support the application for a USBR WaterSMART Drought Resiliency Project grant.

Sincerely,

F. Greg Anderson, P.E.
General Manager/CEO
Kearns Improvement District