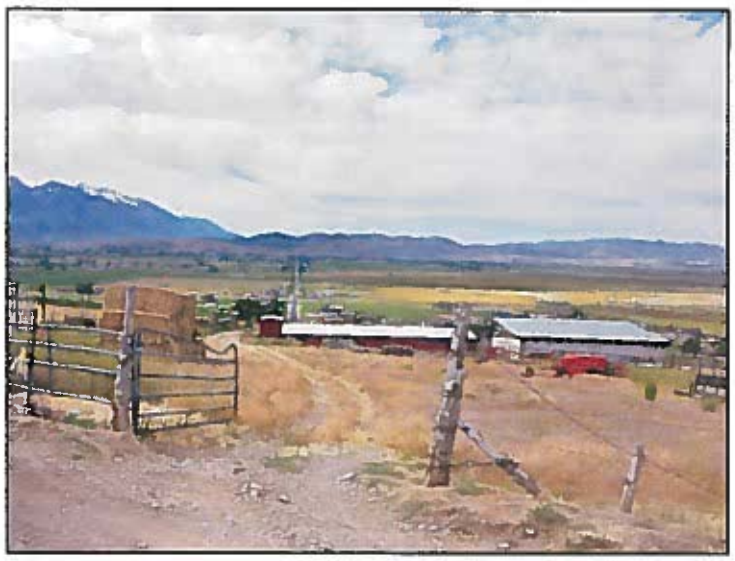
WaterSMART Drought Response Program: Drought Resiliency Project Grants FY 2020

Response to FOA No. BOR-DO-20-F002

Funding Group I

Genola Well & Tank Drought Resiliency Project

Genola, Utah



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October 16, 2019

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TECHNICAL PROPOSAL AND EVALUATION CRITERIA

Executive Summary

Date: Application due date is October 16, 2019

Applicant: Town of Genola, Utah County, Utah

Project Title: Genola Well & Tank Drought Resiliency Project

Project Summary:

The Town of Genola (Genola) is pursuing the design and construction of a second culinary well and an additional culinary storage tank to tie into their existing drinking water system. The major objective of this project is to improve Genola's drought resiliency and water supply reliability.

Genola currently receives water from a single well with zero source redundancy. Because Genola only has one water source that can serve the entire system, they have very limited water supply reliability in cases of contamination, drought, or inability to operate the well. If their well is offline for any reason, the town cannot serve all of its residents. Additionally, the town does not have enough storage capacity to meet existing equalization, fire suppression, and emergency needs. In the case of a drought or other situation, their existing 0.5 million-gallon (MG) storage tank is not sufficient.

The Genola Well & Tank Drought Resiliency Project entails installing a new well to the north of town with the capability to serve the town's residents, as well as providing redundancy in the case of drought, contamination, or another emergency situation. This well would have a capacity between 500 and 1,000 gallons per minute (gpm) to meet existing demands as well as provide capacity for future anticipated growth, all within the town's existing water right allocation. The project also entails the construction of a 1 MG concrete storage tank to meet existing system deficiencies related to storage capacity, allow for future growth, and provide system redundancy. The tank would be located near the new well to better serve residents. Genola is confident that this project would increase culinary water supply reliability during drought periods, as they have seen in recent years.

WaterSMART funds would be used in conjunction with Utah Division of Drinking Water (DDW) grant and loan funds to assist with the construction of the production well and storage tank.

Approximate Length: 20 months

Completion Date: December 2021

Federal Facility: The project is not located on a Federal facility.

Background Data

Water Supply

In addition to their sole well, Genola receives water through a connection to Santaquin City's system, which currently provides a constant flow of 100 gpm for an annual total of 163 acre-feet. All remaining demand is met by the town's well, located southeast of Genola on Lark Road, adjacent to the railroad tracks. It has a flow capacity of 750 gpm and an annual production capacity of 1,210 acre-feet.

As of 2016, the Genola culinary water system provides culinary water to 550 equivalent residential connections (ERUs). Current annual demand is 307 acre-feet, including water delivered from the Santaquin system. By 2066, growth projections estimate the system will need to serve 1,556 ERUs for a projected annual demand of 870 acre-feet.

Table 1: Genola Town Water Rights

Water Right No.	Source	Flow (cfs)	Priority
53-1081	Existing Underground Well	0.2	4/28/1960
53-1082	Existing Underground Well	3.826	4/28/1960

Because Genola currently relies on a single water source for a large majority of their system, they are extremely susceptible to drought, contamination, or any other situation that could compromise their existing well. This lack of system redundancy significantly reduces water supply reliability. In addition, Genola's 0.5 MG existing storage tank falls 0.169 MG short of meeting the basic level of service which includes equalization, fire suppression, and emergency requirements. In case of emergency situations, Genola does not have the capacity to meet water needs, increasing their susceptibility to emergency conditions and resulting damage.

According to the U.S. Drought Monitor, Utah County has experienced at least moderate drought conditions in 12 of the past 15 years. Of those years, 7 years have experienced severe drought, including months of extreme and exceptional drought in 2018. Drought conditions impact snowpack and groundwater supplies which directly impact the water supply in underground wells such as Genola's. These conditions make it difficult for the town to rely on the well for their water supply. And, as it is expected that drought conditions will continue to arise in the coming years, Genola is striving to prepare by increasing their drought resiliency by adding a second culinary well and increasing their storage capacity.

Water Delivery System

The Genola culinary water system provides culinary water to their population of approximately 1,429 people. As of 2016, the system serves 550 equivalent residential units (ERUs), with one pressure zone, one 0.5 MG storage tank, one culinary water well, and one connection to the Santaquin culinary system. Of the 550 ERUs, 362 are residential, 107 are agricultural, 1 is commercial, 71 are public (including the cemetery, rodeo grounds, and soccer fields), and 9 are institutional.

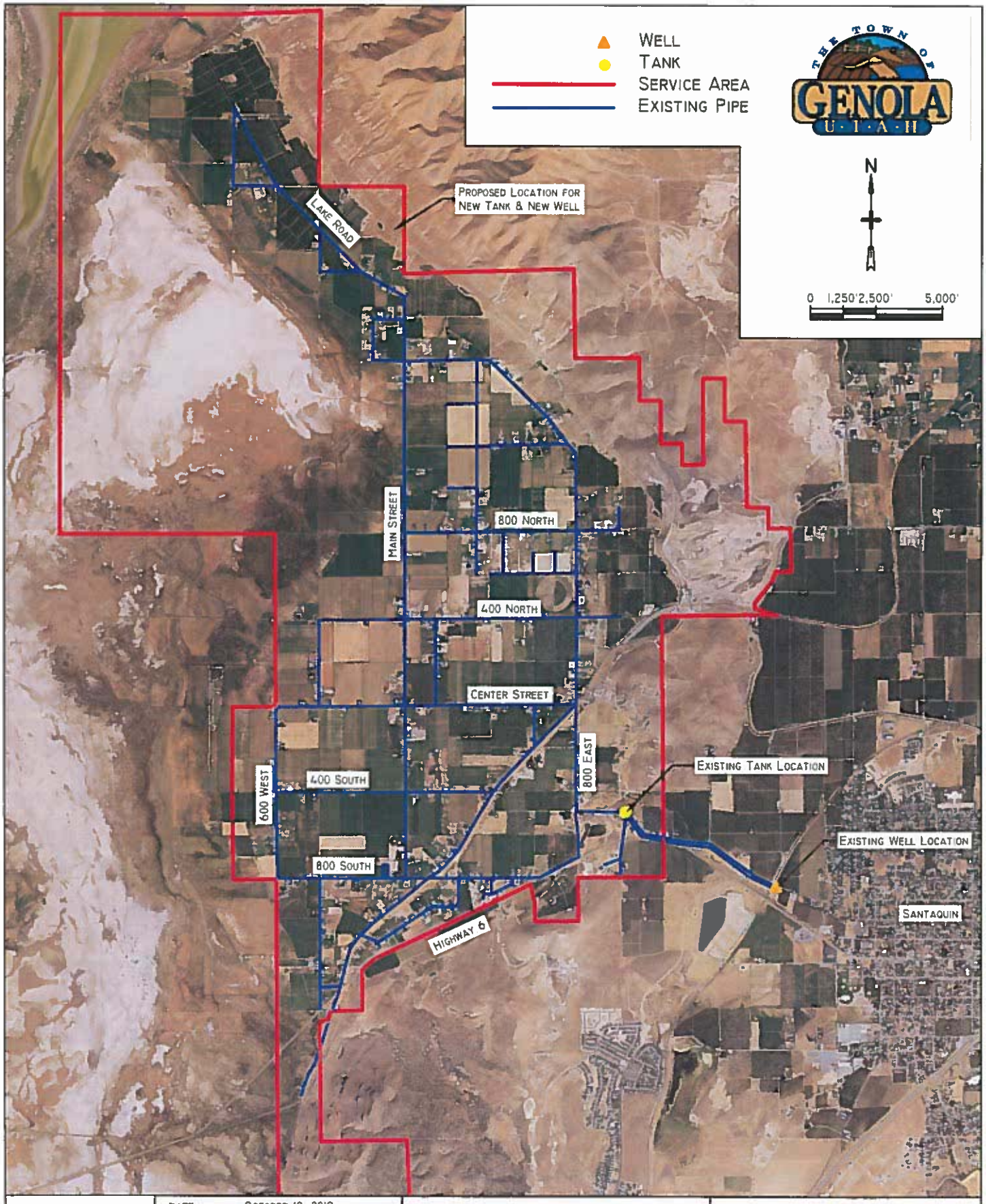
The culinary distribution system is composed of approximately 30 miles of pipelines with associated valves, fittings, and other related infrastructure. Pipe sizes range from 2 inches to 12 inches and are mainly composed of polyvinyl chloride (PVC) pipe with a small section of ductile iron (DI) pipe.

Relationships with Reclamation

The Strawberry High Line Canal Company (SHLCC), which receives water from the Strawberry Valley Project, delivers water for outdoor and agricultural use in and around Genola. Also, Genola is a participant of the Central Utah Project (CUP), which is also a Reclamation project. Both SHLCC and the CUP have direct working relationships with Reclamation via funding and facility ownership. By SHLCC providing irrigation water in the Genola area, demands on Genola's culinary system are decreased as Genola's well water is mainly used for indoor use. This relieves pressure on the system and conserves high-quality groundwater. Reclamation has helped these entities better manage their water and maintain positive relationships. The overall result has been improved general water management in the area and established trust with Reclamation and local entities.

Project Location

The Genola Well & Tank Drought Resiliency Project is located in Utah County, Utah. The town of Genola is located approximately 20 miles southwest of Provo, Utah. The well and tank will be constructed at 40°2'20"N; 111°50'45"W; approximately 2.3 miles north of the Genola Public Safety Building located at 455 North Main Street. The layout of the existing culinary system is shown in Figure 1.



FRANSON CIVIL ENGINEERS

DATE: OCTOBER 10, 2019

SCALE:

Service Area.dwg

P:\UT\Central\Genola Tank and Well\Drawings

LAYOUT: Layout1

FIGURE 1

GENOLA TOWN CULINARY WATER SERVICE AREA

Technical Project Description & Milestones

The Genola Well & Tank Drought Resiliency Project involves the design and drilling of a new production well capable of producing between 500 and 1,000 gpm on the north side of town. Genola's existing water rights will cover the production from the new well with a change application to add a new point of diversion. In addition, the project includes the design and construction of a new 1 MG concrete water storage tank near the new well location on the north side of town. Both will be connected to the existing culinary system.

Permits will be acquired as necessary from the Town of Genola, Utah County, and the Utah DDW to complete the construction of the well and tank as well as to begin operating the well. Construction of the new well will be subcontracted to a qualified and licensed water well driller. The project will meet modern design standards, provide system redundancy, improve water supply reliability, and provide flexibility during times of drought.

Genola has already received a commitment of funds from the Utah DDW to complete the project. Once funding awards have been announced from Reclamation, the project will complete the environmental compliance process and work to obtain all necessary permits and easements. Final design will then be completed for the well and tank before going out to bid to select qualified contractor(s). Following construction, Genola will work with the Utah DDW to obtain an operating permit for the well and begin full system operation.

Performance Measures

The primary indicator of the success of the project will be a complete operation of the new production well and utilization of the new 1 MG storage tank. These will serve to meet existing storage requirements and provide redundancy in case of drought, contamination, or other emergencies.

Performance of the project will be measured and evaluated based on if the new well can produce the design flow and the new storage tank can hold its design capacity without leakage. Recorded well operations following construction will indicate whether flows meet the design capacity. As town operators analyze and use the well and tank, overall system operations will be analyzed to ensure flow can meet all pressure requirements and design flows using existing meters and valves throughout the system. Water quality tests will be a part of obtaining the Utah DDW operating permit for the well. Construction of the storage tank will include leakage tests to ensure the tank does not leak and can store the designed amount.

The goal of this project is to provide system redundancy in case of drought or emergencies. As long as the new well and tank operate as designed, this goal will be achieved.

Evaluation Criteria

Evaluation Criterion A – Project Benefits (40 pts)

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

The project will build long-term resilience to drought by providing access to a secondary water source and allowing adequate storage to meet equalization, fire suppression, and emergency needs at any time during a given year. The proposed new well will provide system redundancy in the situation that the existing well must be taken offline, whether due to contamination, inadequate water supply, or other emergency situations. This well will utilize existing water rights and allow for future growth with increased water supply reliability.

The proposed new storage tank will resolve existing storage deficiencies, significantly reducing potential drought and emergency situation impacts. In addition, it will allow for additional growth, provide system redundancy, and increase system reliability. This project is expected to provide drought resiliency to Genola for at least 50 years based on growth projections and anticipated drought conditions.

- *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? What percentage of the total water supply does the additional water supply represent? How was this estimate calculated? Provide a brief qualitative description of the degree/significance of the benefits associated with the additional water supplies.*

The project will provide an additional water supply to better utilize existing water rights and provide redundancy for use in an emergency situation. The new well is anticipated to provide between 807 acre-feet to 1,613 acre-feet annually depending on results of the test well and final location and production limits of the new well. The average supply is assumed to be 1,210 acre-feet annually. The existing well has an annual capacity of 1,210 acre-feet with an additional water supply of 163 acre-feet annually from the Santaquin culinary system.

The new well will provide 47 percent of the new total water supply and 88 percent of the existing water supply for Genola. This was calculated by dividing the expected well production of 1,210 acre-feet by the existing total water supply and the new total water supply (which includes the production from the new well).

The additional water supply will provide tremendous benefits to Genola. Currently, Genola will experience emergency conditions if anything from contamination to drought to any other situation impacts their existing well since they have no other access to culinary water outside of their low-flow connection to Santaquin City's system. By adding an additional water supply with enough capacity to meet all existing demands, the town can put one well offline for maintenance or emergency needs and continue to meet system demands. This added redundancy drastically increases the water supply reliability which builds the town's operating confidence as well as providing adequate water supply for future growth. Drought resiliency and better system management for unexpected emergencies are critical for any culinary water system.

- *Will the project improve the management of water supplies? If so, how will the project increase efficiency or operational flexibility? What is the estimated quantity of water that will be better managed as a result of the project? How was this estimate calculated? Provide a brief qualitative description of the degree/significance of anticipated water management benefits. 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 significantly improve Genola's ability to manage their water supplies. Previously, the town had minimal operational flexibility because they only had one water supply and one, inadequate, storage tank. By adding an additional water supply with the proposed well, Genola will experience operational flexibility for the first time. They will be able to perform routine maintenance on either well by taking it offline while the other continues full operation. Additionally, if an emergency situation requires taking a well offline, there will still be one operating well to service the town's needs. The same flexibility applies to the storage tanks. More flexibility due to increased storage will help with any emergency situations that arise that may affect both wells or access to one or both storage tanks.

All water distributed through Genola's system will be better managed due to this project. It is anticipated that as the area experiences growth, all increased demands will also be better managed. Similarly, the total storage of the existing and new tanks of 1.5 MG will be better managed for increased operational flexibility and redundancy. The new well will be metered just as the existing one is. This will allow water managers to monitor the aquifer and know how much water is being pumped from each source.

Improved water supply management will significantly benefit Genola as they will be able to perform routine maintenance, meet fluctuating demands, and resolve potential emergency situations. Prior to this project, Genola has been subject to natural conditions such as drought, contamination, and other emergency conditions.

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

The project will not impact local fish, wildlife, or the environment.

If the proposed project includes any of the following components, please provide the applicable additional information:

- ***Wells.**—What is the estimated capacity of the new well(s), and how was the estimate calculated? How much water do you plan to extract through the well(s)? Will the well be used as a primary supply or supplemental supply when there is a lack of surface supplies? Please provide information documenting that proposed well(s) will not adversely impact the aquifer it/they are pumping from (overdraft or land subsidence). At a minimum, this should include aquifer description, information on existing or planned aquifer recharge facilities, a map of the well location and other nearby surface water supplies, and physical descriptions of the proposed well(s) (depth, diameter, casing description, etc.). If available, information should be provided on nearby wells (sizes, capacities, yields, etc.), aquifer test results, and if the area is currently experiencing aquifer overdraft or land subsidence. Please describe*

the groundwater monitoring plan that will be undertaken and the associated monitoring triggers for mitigation actions. Describe how the mitigation actions will respond to or help avoid any significant adverse impacts to third parties that occur due to groundwater pumping.

The proposed new well will have a capacity between 500 gpm to 1,000 gpm. This estimate has been derived from production rates of other similar wells in the surrounding area. It will be confirmed by studies completed by the hydrogeologist and preliminary results of a proposed test well. Based on projections completed for the 2017 master plan, the desired production is 750 gpm to meet current and future demands while providing source redundancy. Because the existing well is not used to capacity, Genola will balance the operation of the existing and new wells so that economic efficiency is achieved. This may include mainly pumping out of one of the wells or pumping out of both to meet demands in different locations throughout town. If needed, an operational study will be completed to determine how to manage source supply and delivery.

The new well is not expected to have any negative effects on groundwater levels in the local aquifer. Total water removed from the aquifer using the existing town well and the new well will not change with the addition of the new well. The proposed hydrogeological study and test well will help determine actual physical dimensions of the new well and associated impacts. Unless it is an emergency situation, the water being drawn from the culinary wells will not change existing aquifer impacts. As the new well is constructed and the process is followed to receive the Utah DDW operating permit, impacts will be monitored through test runs. Additional monitoring efforts will be implemented upon full operation to ensure there are no negative groundwater impacts in the long term.

Evaluation Criteria B – Drought Planning and Preparedness (15 pts)

Genola has been working to build drought resiliency and water supply reliability. In 2017, Genola updated their Culinary Water System Master Plan which indicated existing storage capacities were inadequate and overall system redundancy (source and storage) were nonexistent. Recommended capital improvements included the proposed new well and storage tank to be completed immediately. Upon completion of the master plan, Genola took action to pursue these projects by obtaining the necessary funding and performing the preliminary studies and design work to select a location for the well and tank. Currently, Genola is considering drilling a test well to confirm geologic conditions and the ideal location for the new well. Additionally, a hydrogeologic study is being conducted to properly implement this project.

- *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.*

Select pages of the Genola Town 2017 Culinary Water System Master Plan are attached in Appendix F.

- *Explain how the applicable plan addresses drought. Explain whether the drought plan was developed with input from multiple stakeholders. Was the drought plan developed through a*

collaborative process? Does the drought plan include consideration of climate change impacts to water resources or drought?

The master plan addresses existing system deficiencies related to supply, storage, and distribution in context of existing and projected demand for the next 50 years. The plan was developed through a collaborative process involving water resource engineering, town planning, and public involvement. While considering potential drought conditions and emergency situations including source contamination and fire, the master plan indicates that the existing system does not provide complete source redundancy or adequate storage to meet the existing level of service. Results of the analyses performed for the master plan include capital improvements recommendations including a new well and storage tank to meet existing deficiencies and provide for future growth.

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

The proposed project is specifically identified in the 2017 master plan. The plan indicates that the proposed project will increase redundancy, increase water supply reliability, meet existing demands, and provide improved management relating to drought and emergency conditions. Completion of the project will meet several immediate and projected goals of the master plan. As listed in the capital improvements list, both the well and tank are recommended to be completed immediately.

Evaluation Criterion C – Severity of Actual or Potential Drought Impacts to be addressed by the Project (15 pts)

- *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.*

Should no action be taken regarding the proposed project, Genola is expected to continue to suffer drought conditions and be forced to rely on a single well and inadequate storage capacity. The U.S. Drought Monitor has recently classified the Genola area to be in an extreme, and, at times, exceptional, drought. Of the past 15 years, 7 years experienced severe drought conditions. These drought patterns are expected to continue. It is anticipated based on similar conditions in the surrounding region that the risk of wildfire will continue to increase. Additionally, water supplies may be compromised with no advance notice due to contamination, low water supplies in the aquifer, or inability to operate wells and springs.

Genola is specifically at risk to these drought impacts as they do not have adequate storage capacity to meet all equalization, fire suppression, and emergency needs. In addition, by relying on only one well, if it is compromised for any reason, drought or emergency, Genola cannot meet basic drinking water demands for their residents. These impacts will be extremely severe for the community as drinking water is critical for survival. Assuming Santaquin is unaffected by drought or emergency conditions, Genola would be able to utilize 100 gpm to meet drinking water demands but would be

281 gpm short of meeting basic levels of service. Regarding storage capacity, Genola cannot meet equalization, fire suppression, and emergency needs. If all three are required at one time, Genola will not be able to provide the needed demand.

Based on these existing conditions, public health may suffer if adequate drinking water is not available, the environment may suffer in the case of a fire if adequate storage is not available, and continued growth may be restricted due to a lack of water supply reliability which may result in economic loss in the area. A water-related crisis is highly likely in Genola's existing condition. The proposed project would greatly reduce the likelihood of a water-related crisis in the area, increasing drought resiliency and the ability to manage emergency conditions.

- *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). Describe any projected increases to the severity or duration of drought in the project area resulting from changes to water supply availability. Provide support for your response.*

While 2019 has proven to be mostly wet with some abnormally dry to moderate drought conditions, 2018 was categorized by the U.S. Drought Monitor as severe drought conditions with several months experiencing extreme and exceptional drought conditions. Of the past 15 years, 7 years have experienced at least severe drought conditions if not more extreme conditions. See Appendix G for data from Drought Monitor. While projections are difficult to provide, similar drought conditions such as experienced in the past 15 years are expected to continue if not worsen.

Evaluation Criterion D – Project Implementation (10 pts)

- *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.*

Preliminary design efforts have already begun in order to move the project forward including a test well and hydrogeologic study. In addition, Genola has already received a funding commitment from the Utah DDW to complete the test well, new production well, and storage tank. The following schedule indicates major milestones and tasks as well as anticipated completion dates.

Signed Grant Contract	May 2020
NEPA Compliance Obtained	October 2020
Design Completed	December 2020
Receive DDW Design Approval	January 2021
Select Contractor	March 2021
Complete Construction	August 2021
Receive DDW Operating Permit	September 2021
Finish Reclamation Reporting	December 2021

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

The well and tank will be constructed on private land so an easement will need to be obtained from the landowner. The landowner has already given verbal approval to use the site. A change application will need to be filed with the Utah Division of Water Rights to add a new point of diversion for the new well. In addition, the well will need to receive a Utah DDW operating permit prior to full operation. Genola is currently working with the Utah DDW to ensure they meet all requirements and will continue to coordinate throughout the project to obtain this permit upon completion of the well. County and Town construction permits will be obtained as necessary for construction. As the Town of Genola is completing this project, these permits will not be difficult to obtain.

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

Significant engineering work has been completed to develop the master plan which indicates the need for this project, identify viable locations for the well and tank, perform hydrogeologic studies to estimate physical requirements of the well, and obtain funding to make this project feasible. Preliminary design has been done to identify project costs. In addition, a test well will soon be constructed to finalize the location and parameters of the new production well.

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

No new policies are required to implement the project. The Mayor and Town Council have approved the project. Per funding conditions from the Utah DDW, Genola will need to go through a bonding process which will likely result in utility rate increases. Proper processes will be followed to issue this rate increase.

- *Describe how the environmental compliance estimate was developed. Have the compliance costs been discussed with the local Reclamation office?*

Based on the experience of the Engineer in preparing numerous EA documents for WaterSMART-funded projects, the environmental costs were assumed to be two percent of total design and construction costs. It is anticipated that a subcontractor will perform the cultural clearance work and the Engineer will perform the NEPA compliance work. The Engineer has experience complying with NEPA requirements for similar projects and has provided the cost estimate. This environmental cost has been discussed with Reclamation. There is a good chance that this project may fall under a Categorical Exclusion rather than an Environmental Assessment which should save costs.

Evaluation Criterion E – Nexus to Reclamation (10 pts)

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

The Strawberry High Line Canal Company (SHLCC), which receives water from the Strawberry Valley Project, delivers water for outdoor and agricultural use in and around Genola. Also, Genola is a participant of the Central Utah Project (CUP), which is also a Reclamation project. Both SHLCC and the CUP have direct working relationships with Reclamation via funding and facility ownership. By SHLCC providing irrigation water in the Genola area, demands on Genola's culinary system are decreased as Genola's well water is mainly used for indoor use. This relieves pressure on the system

and conserves high-quality groundwater. Reclamation has helped these entities better manage their water and maintain positive relationships. The overall result has been improved general water management in the area and established trust with Reclamation and local entities.

- *Will the project benefit any tribes?*

The project will not impact tribes.

- *Does the applicant receive Reclamation project water?*

Genola residents impacted by this project also receive Reclamation project water from the SHLCC. Genola also has a contract to receive CUP water.

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

No.

- *Is the project in the same basin as a Reclamation project or activity?*

The project is in the same basin as CUP facilities and activities. SHLCC projects funded by Reclamation have also been constructed in the same basin.

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

This project will not directly contribute water to a Reclamation project. However, it will impact the water management in a Reclamation project basin.

Evaluation Criterion F – Department of the Interior Priorities (10 pts)

1. *Creating a conservation stewardship legacy second only to Teddy Roosevelt*
    a. *Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment;*
    b. *Examine land use planning processes and land use designations that govern public use and access;*
    c. *Revise and streamline the environmental and regulatory review process while maintaining environmental standards.*
    d. *Review Department water storage, transportation, and distribution systems to identify opportunities to resolve conflicts and expand capacity;*
    e. *Foster relationships with conservation organizations advocating for balanced stewardship and use of public lands;*
    f. *Identify and implement initiatives to expand access to Department lands for hunting and fishing;*
    g. *Shift the balance towards providing greater public access to public lands over restrictions to access.*

The proposed project utilizes best practices developed for the culinary industry. Science and past experience have proven the advantage of water system redundancy and reliability. This project will

provide better management of Genola's water resources to adapt to changes in the environment including drought and emergency situations.

2. *Utilizing our natural resources*
    a. *Ensure American Energy is available to meet our security and economic needs;*
    b. *Ensure access to mineral resources, especially the critical and rare earth minerals needed for scientific, technological, or military applications;*
    c. *Refocus timber programs to embrace the entire 'healthy forests' lifecycle;*
    d. *Manage competition for grazing resources.*

Not applicable.

3. *Restoring trust with local communities*
    a. *Be a better neighbor with those closest to our resources by improving dialogue and relationships with persons and entities bordering our lands;*
    b. *Expand the lines of communication with Governors, state natural resource offices, Fish and Wildlife offices, water authorities, county commissioners, Tribes, and local communities.*

Genola has been indirectly impacted by Reclamation through relationships with the CUP and SHLCC. These existing relationships have helped Reclamation build trust with neighboring entities which has had a positive influence on Genola. While Genola doesn't have an established direct relationship with Reclamation, they hope to develop one through this project. Reclamation will also be able to strengthen ties with the Utah DDW and Utah County through this project. The success of this project, aided by Reclamation, will build trust among the Genola community as well as surrounding communities who witness the efforts Reclamation is making with those who control precious water resources. Communication lines will be opened and intentions made clear. It is expected that the project will have a positive effect on the surrounding area.

4. *Striking a regulatory balance*
    a. *Reduce the administrative and regulatory burden imposed on U.S. industry and the public;*
    b. *Ensure that Endangered Species Act decisions are based on strong science and thorough analysis.*

Not applicable.

5. *Modernizing our infrastructure*
    a. *Support the White House Public/Private Partnership Initiative to modernize U.S. infrastructure;*
    b. *Remove impediments to infrastructure development and facilitate private sector efforts to construct infrastructure projects serving American needs;*
    c. *Prioritize Department infrastructure needs to highlight:*
        1. *Construction of infrastructure;*
        2. *Cyclical maintenance;*
        3. *Deferred maintenance.*

While not directly replacing or rehabilitating old infrastructure, this project is utilizing modern designs, components, and infrastructure to build a reliable storage tank and production well based on efficient and improved techniques developed in the industry. This project is modernizing the Genola culinary water system by instituting system-wide redundancy, building drought resiliency, and better managing resources during good times and bad. It also allows for growth by removing impediments to development such as inadequate water storage and unreliable water supply.

PROJECT BUDGET

Funding Plan and Letters of Commitment

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

The non-Federal share of project costs has already been obtained through a Utah DDW loan and grant. A letter of funding commitment is provided in Appendix A. Genola will use reserve accounts, tax revenue, and revenue from utility assessments to make the loan payments. To make these payments, utility rates will be increased.

Project funding provided by a source other than the applicant shall be supported with letters of commitment from these additional sources. Letters shall identify the amount of funding commitment, date of funding availability, time constraints, any other contingencies.

Commitment letters from third party funding sources should be submitted with your application. If commitment letters are not available at the time of the application submission, please provide a timeline for submission of all commitment letters.

Please see Appendix A for a letter of funding commitment from the Utah DDW.

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).*
- *Any costs that will be contributed by the applicant.*
- *Any third-party in-kind costs (i.e. goods and services provided by a third party).*
- *Any cash requested or received from other non-Federal entities.*
- *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.*

The Utah DDW has committed $2,849,400 for a 20 percent grant, 80 percent loan funding award to drill a test well, drill the new production well, and construct the storage tank. Because the test well is already under consideration, this portion of the project has not been included in this application. Environmental compliance for the test well will be conducted according to the parameters of the DDW loan agreement.

Funding from the Utah DDW will cover the entire proposed project. However, if Reclamation funds are received, it will allow Genola to reduce the loan they obtain from the Utah DDW and thus decrease future repayments. Or Genola could use the remaining loan amount for additional system improvements not currently funded. Regardless of whether or not Genola receives WaterSMART funding, this project will move forward as the town sees it as a critical need.

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.*
- *The date of cost incurrence.*
- *How the expenditure benefits the project.*

While preliminary engineering work has been completed, no costs associated with the work are included in the budget proposal for this grant request.

Budget Proposal

Table 2: Funding Sources

Funding Sources	Total Cost
Costs to be reimbursed with the requested Federal funding	$300,000
Costs to be paid by the applicant	$2,250,300
Value of third-party contributions	$0
Total Project Cost	**$2,550,300**

Table 3: Summary of Non-Federal and Federal Funding Sources

Funding Sources	Funding Amount
Non-Federal Entities	
1. Utah DDW Grant	$576,400
2. Utah DDW Loan	$1,673,900
Non-Federal Subtotal	$2,250,300
Other Federal Entities	$0
Requested Reclamation Funding	$300,000
Total Project Funding	**$2,550,300**

Table 4: Budget Proposal

Budget Item Description	Computation		Quantity Type	Total Cost
	$/Unit	Quantity		
Environmental Services	See Appendix E			$49,800
Engineering Services	See Appendix C			$175,000
Construction Management	See Appendix C			$149,800
Construction Contract	See Appendix D			$2,165,700
Reclamation Reporting	$100/hr	100	Hours	$10,000
Total Project Costs				**$2,550,300**

Budget Narrative

The proposed project does not include salaries and wages, fringe benefits, travel, equipment, materials and supplies, or third-party in-kind contributions. Costs that may fall under these categories will be included as engineering work and are included in the "Contractual" section. Indirect costs accrued by town employees will be absorbed by Genola and will not be submitted for reimbursement from the Reclamation grant.

Contractual

The project will use consultants and contracts through contractual agreements. An engineering firm will be retained to provide engineering and permitting services including coordination with Reclamation, environmental compliance, design engineering, permitting, and construction management (CM) services. In addition, a cultural resources specialist will be retained to provide the cultural resources clearance as part of the NEPA compliance process. A contractor will be solicited to provide construction services. Detailed cost estimates for engineering and construction services are shown in the following appendices:

Appendix C – Engineering Services (includes design engineering and CM)
Appendix D – Construction Services
Appendix E – Environmental Services

Environmental and Regulatory Compliance Costs

Environmental costs are expected to be minimal, so the recommended value of two percent of design and construction costs was used as a cost estimate. It is anticipated that a subcontractor will perform the cultural clearance work while the engineering consultant will perform the NEPA compliance work. See Appendix E for a detailed cost breakout. The estimate includes contractual fees as well as Reclamation's hold back for review.

Other Expenses

Additionally, a total of $10,000 was budgeted for coordination with Reclamation for the contract administration related to the WaterSMART grant. This amount includes the costs to provide progress performance and semi-annual reports, coordinate requests for reimbursement, and create the final construction report.

Total Costs

The total cost of the proposed project is $2,550,300.

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.*

The proposed project is not expected to have any permanent adverse impacts on the environment. The new well and tank construction will temporarily minimally disturb the land surface, soil, and air quality. Best management and construction practices will be utilized to minimize these temporary impacts. All disturbed areas will be restored back to their existing state or better.

- *Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*

There are no critical habitats within the project area. IPaC lists the Canada Lynx as threatened, the June Sucker as endangered, and Ute Ladies'-tresses as threatened for the project area. However, since no critical habitats for these species are within the project area, it is not anticipated that they will be affected by the project.

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

There are no wetlands or other surface waters within the project area that potentially fall under CWA jurisdiction as "Waters of the United States" according to CWA resources and the National Wetlands Inventory.

- *When was the water delivery system constructed?*

Genola's culinary water system was completed in May 1938 with water turned into the system in 1939. In 1961, the existing well was drilled east of the Union Pacific Railroad. Water meters were

installed in 1962. The existing 0.5 MG storage tank was completed in July 1982. Since that time, improvements have been made to the town's infrastructure as needed.

- *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.*

No irrigation facilities will be impacted by this project.

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

No historic features or landmarks will be impacted by this project.

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

There are no known archeological sites within the project area.

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

The project will not have an adverse effect on low income or minority populations.

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

The project will not impact Indian sacred sites or access to them or result in other impacts to tribal lands.

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

The project is not expected to contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species in the area. Project documents and specifications will ensure that noxious weeds are controlled and non-native species are not introduced during the project.

Required Permits or Approvals

The well and tank will be constructed on private land so an easement will need to be obtained from the landowner. The landowner has already given verbal approval to use the site. A change application will need to be filed with the Utah Division of Water Rights to add a new point of diversion for the new well. In addition, the well will need to receive a Utah DDW operating permit prior to full

operation. Genola is currently working with the Utah DDW to ensure they meet all requirements and will continue to coordinate throughout the project to obtain this permit upon completion of the well. County and Town construction permits will be obtained as necessary for construction. As the Town of Genola is completing this project, these permits will not be difficult to obtain.

Existing Drought Contingency Plan

See Appendix F for Genola Town's 2017 Culinary Water System Master Plan which addresses drought resiliency planning and system deficiencies.

Letters of Support

See Appendix A for letters of support for the Genola Well & Tank Drought Resiliency Project.

Official Resolution

See Appendix B for the signed official resolution.

Unique Entity Identifier and System for Award Management

All applicants (unless the applicant has an exception approved by Reclamation under 2 CFR §25.110[d]) are required to:

- *(i) Be registered in the System for Award Management (SAM) before submitting its application;*
- *(ii) Provide a valid unique entity identifier in its application; and*
- *(iii) Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.*

Genola has met the requirements for the System for Award Management (SAM) registration. The company is listed with DUNS number 164328366 and CAGE code 7K4A0. The applicant agrees to maintain an active registration during the project.