
Title Page

City of Boise Recycled Water Program

PUBLIC WORKS DEPARTMENT | WATER RENEWAL SERVICES

150 N Capitol Blvd., Boise, ID 83702

(208) 468-5430

PROJECT MANAGER

Royce Davis

Recycled Water Program Manager

150 N Capitol Blvd., Boise, ID 83702

rdavis@cityofboise.org

(208) 608-7572

WaterSMART GRANT APPLICATION CONTACT

Shelby Smith, PE, PMP

Recycled Water Program Management

(206) 749-2266

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SECTION 1

Mandatory Federal Forms

- SF-424: Application for Federal Assistance
- SF-424A: Budget Information - Non-Construction Programs
- SF-424B: Assurances for Non-Construction Activities
- SF-LLL: Disclosure of Lobbying Activities (if applicable)

SECTION 2

Technical Proposal and Evaluation Criteria

EXECUTIVE SUMMARY

February 27, 2023

City of Boise, Ada County, Idaho

Summarize project in 1 paragraph. Specify the work proposed, including how funds will be used to accomplish specific activities, and briefly identify how the proposed activities contribute to accomplishing the goals and objectives of this NOFO.

The City of Boise's (city's) Recycled Water Program (RWP) will preserve local water by protecting the Boise River, bolstering the local groundwater supply, and creating resiliency against climate change impacts. To implement the RWP, the city will engage in planning and feasibility studies and environmental compliance activities to inform site selection and development of a Recycled Water Facility (RWF), Groundwater Recharge Facility (GWRP), and related recycled water conveyance infrastructure. The city's investment in recycled water will support sustainable economic development and extend and secure water supplies while improving the resilience of the greater Lower Boise River Watershed (LBRW).

State the length of time and estimated completion date for the proposed project.

The planning and pre-construction activities (Project) enabled by this funding will take approximately 30 months and are expected to be completed by October 2025.

Whether or not the proposed planning efforts are for a project on a Federal facility or will involve Federal land.

The Project will not involve a federal facility or federal land.

PROJECT LOCATION

Provide specific information on the geographic location of the project area including a map showing the geographic location.

The proposed Project is located in southwestern Idaho, within Ada County (**Fig. 1**).

The proposed Project will be located approximately 2.5 miles south of the southernmost boundary of the City of Boise (city). **Figure 1** below illustrates areas of interest under investigation for the GWRP. These areas are being tested for groundwater recharge feasibility, with the possibility for co-location with the RWF.

TECHNICAL PROJECT DESCRIPTION

Applicant Category and Eligibility

The city is seeking funding from Funding Group I. The city is a municipality within the state of Idaho. Table 1 summarizes how the city's proposed Project, which includes RWF and GWRF (the Facilities) construction, aligns with USBR's eligibility criteria.

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Goals and Objectives for Proposed Activities

The proposed Project includes planning and pre-construction activities to support future design and construction for the RWP. A key RWP outcome is construction of a Recycled Water Facility (RWF) and Groundwater Recharge Facility (GWRF) to enable local industrial wastewater reuse and groundwater recharge. The city intends to renew used industrial water and return it to local industries. To do this, the city must have enough water to meet demand and the resiliency to withstand water scarcity challenges. The Project is vital because it provides the information required to make programmatic decisions that will make the RWP a reality. The city’s Project goals for grant funding include:

- Developing a feasibility study for USBR’s review and approval to enable future city applications for capital grant funding, i.e., USBR Title XVI WaterSMART Grant, to be used for financing RWP capital investments, including design and construction costs
- Evaluating potential sites for the Facilities, including developing a framework for evaluating locations using the city’s business case evaluation (BCE) process and criteria such as hydrogeology, environment, adjacent land uses, and diversity, equity, and inclusion lenses

- Evaluating potential groundwater recharge sites using geophysical methods and non-invasive site characterization to provide technical data to assess site feasibility for accepting treated water to recharge groundwater
- Supporting future recycled water conveyance and distribution system (e.g., booster stations, storage tanks, and distribution and transmission mains) planning efforts
- Supporting site selection and preliminary design activities for the Facilities, such as site surveys and non-invasive geotechnical investigations
- Conducting non-invasive environmental site surveys and cultural resources studies at sites proposed the Facilities to comply with NEPA regulations
- Preparing NEPA documentation for the preferred Facilities locations

Approach

The city will implement the RWP by 2030 to provide flow and treatment capacity for anticipated growth. The RWP will address water supply scarcity challenges and support capacity demands and community interests. The Project will locate and evaluate feasibility of potential sites for the Facilities from economic, programmatic, policy, and logistical perspectives. After potential

sites are identified through desktop analyses, they will be further evaluated for viability through alternatives analysis, the city's BCE process, and environmental and cultural resource compliance activities. The following approach will be used to evaluate sites for proposed future infrastructure:

- Identify preliminary Facilities' site requirements and develop selection criteria
- Screen and prioritize properties in target areas meeting the minimum siting requirements (eliminating sites that do not meet minimum criteria)
- Negotiate access agreements with landowners for identified properties
- Perform technical evaluations of identified properties to verify suitability including obtaining the geologic, hydrogeologic, and geochemical information required to support land acquisition (final land purchase), permitting, and decision-making
- Assess prioritized parcels on technical, social, and economic criteria using a BCE
- Perform additional feasibility studies (i.e., site geophysics, including surface-based resistivity testing, surface-based magnetics, and seismic survey methods) and environmental due diligence (e.g., site survey and cultural resource evaluation to support NEPA document preparation) to confirm site suitability prior to property purchase and future construction
- Negotiate and finalize purchase of selected properties

RESPONSES TO EVALUATION CRITERIA

Evaluation Criterion 1 – Project Planning and Analysis

Subcriterion 1a – Water recycling needs and opportunities (15 points)

Describe the problems and needs in the project area.

The city, along with other municipalities in the arid West, must confront the perfect storm: changing precipitation, snowpack, and drought patterns fueled by climate change coinciding with the regional growth of industry and communities. The RWP will diversify the community water supply by advancing the use of recycled water for industrial reuse and by replenishing groundwater resources through groundwater recharge. Located within the Treasure Valley Region (TVR; Boise Metro Area), Boise is planning for future population growth, increased urban/suburbanization, increased water demands, and rising ambient temperatures in the LBRW. Developing recycled water is critical to securing water supplies for future generations of Boise residents. The Project will enable the city to support community values related to protecting the Boise River while bolstering public support for leveraging recycled water to meet water supply planning needs.

Describe the current and projected water supplies and demands in the project area; include a discussion on supply and demand imbalances. Additional consideration will be given to proposals that explain how the problems and needs in the area may be impacted by climate change, and/or if supply and demand projections will include climate change information.

The city is located within the TVR and the LBRW, within Southern Idaho's high-desert region. The arid landscape is dense in sagebrush and desert grasses, and the city's surrounding agricultural land relies on an extensive irrigation canal system. Declining snowpack, illustrated in [Fig. 2](#) below, and decreased storage in the region's reservoirs due to climate change paired with rapid regional growth have resulted in a growing water supply and demand imbalance across the TVR. A report commissioned by Idaho Department of Water Resources (IDWR), found domestic, commercial, municipal, and industrial (DCMI) water demand for the TVR will more than double, with an increase of 188,000 acre-feet per year (140% of current demand) by 2065 (IDWR, 2016). The wastewater treatment facility system capacity in Boise will

need to increase by ~20% by 2040 to meet community and industry growth projections.

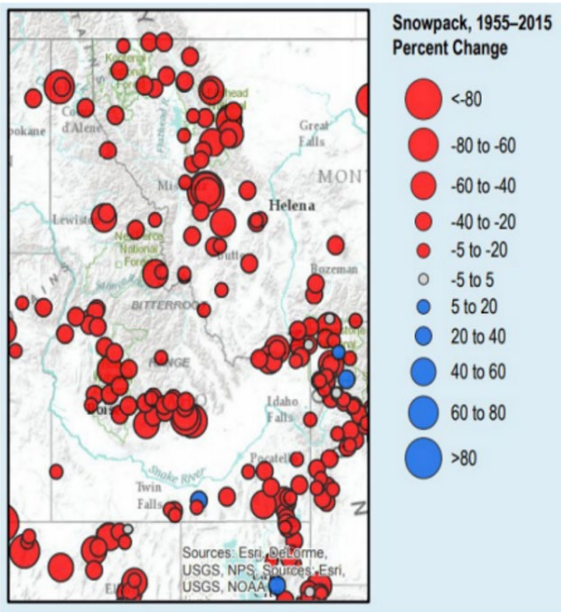


Fig 2. Snowpack % Change 1955-2015

Recent studies show that Boise will continue to face greater water resources stresses due to climate change. Boise relies on groundwater fed by underground aquifers for most of its local water supply. Climate model predictions focused on the Pacific NW and Rocky Mountain Region (IDWR, 2012; 2016) show that warmer weather will result in more fall and winter precipitation as rain, instead of snow, causing earlier snowmelt and higher peak river flows. As these flows rush out of the region through the river system, they cannot be captured and stored in underground reservoirs.

A study by the 2016 Boise Climate Adaptation Assessment (BCAA) outlined expected future climate change-related impacts for Boise, including changing precipitation patterns, rising temperatures, and increasing drought frequency. The BCAA found the TVR is likely to experience the following by the mid-21st century:

- Moderate droughts will occur in roughly 1 of every 2 years, vs. 1 in every 4 now
- Exceptional drought will occur in 1 of every 3 or 4 years, vs. 1 in every 12 now
- Drought frequency and duration is projected to increase despite increases in heavy

precipitation events due to increased evaporative demand with warming

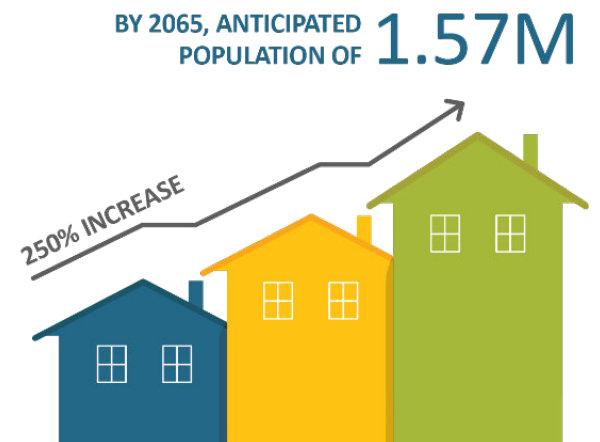
- Drought-related water quality issues from low stream flows and hotter temperatures

Given these trends, the Treasure Valley Comprehensive Aquifer Management Plan (TVCAMP) concluded: “The Boise River basin may experience wetter wet years and drier dry years. However, because our water storage capacity in the basin is fixed, the increased water supplies during the wet years cannot be captured and held over for use during the dry years. Consequently, wet years do not offset dry years.” (IWRB, 2012).

Additionally, regional water supply is decreasing as the TVR is experiencing rapid community and industry growth. The TVR accounts for 46% of Idaho’s population and is the eighth fastest growing region in the U.S. (census.gov, 2020).

By 2065, the TVR population will increase by more than 250%, to 1.57 million (Treasure Valley DCMI Water Demand Projections (2015-2065)). Average household density is also projected to decrease, which may further drive-up water demand.

An influx of industrial investment in SE Boise, the wider city, and across the state is also increasing water demand. The TVR is the largest metro area in Idaho with a labor force of roughly 416,700. Despite the pandemic, the employed workforce grew 12.5% between 2017 and 2021 (US Bureau of Labor Statistics, 2022).



SECTION 2: Technical Proposal and Evaluation Criteria

Collectively, these pressures will place increasing value on reliable water supplies within the TVR and arid West. The proposed WaterSMART Project will enable the city to evolve its resource management practices by meeting the demands and opportunities of these drivers through recycled water.

Describe how the planning activities will investigate potential uses and markets for reclaimed or desalinated water (e.g., environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, and recreation).

The Project will advance the city's investigation of industrial reuse and groundwater recharge. Through the development of the 2020 Water Renewal Utility Plan (Utility Plan) and the RWP's *Highest and Best Use Policy*, the city investigated a range of potential recycled water uses and developed a decision-making framework for evaluating alternatives. The RWP aims to produce fit-for-purpose water ("the right water for the right use") and prioritize recycled water use diversification whenever feasible to manage risk and increase community benefit. Fit-for-purpose water means that water is treated based on how it will be used, not over-treated to incur excessive costs, nor under-treated, narrowing the possibilities for diversified end uses. When making decisions about how the recycled water it produces will be used, the city evaluated how well each potential recycled water use alternative manages risk, responds to market signals, and addresses community values. Through the evaluation process, industrial recycled water and groundwater recharge were identified as the two initial uses that ranked the highest amongst the evaluation criteria for Boise's recycled water.

Describe the source water that will be considered for the project, including location, capacities, existing flows, treatment processes, and quantities of impaired water available to meet the new reclaimed, recycled, or desalinated water demands.

The Project will enable development of a RWF capable of treating up to 5 mgd of used industrial water for beneficial use through groundwater recharge and/or industrial reuse. The RWF will renew industrial source water via an integrated treatment approach that incorporates multiple barriers of treatment with a range of contaminant removal to provide a robust, flexible treatment process suitable for achieving high levels of treatment. In March 2023, the city is launching a pilot test to characterize the effectiveness of various treatment train configurations to meet a range of water quality targets. The pilot will support the RWF treatment train selection. The pilot's ultimate goal will be to demonstrate treatment of representative industrial used water to Class A Recycled Water Quality Standards, and meeting all groundwater quality rules for Primary Drinking Water and Secondary (aesthetic) maximum contaminant levels. The pilot will also target removal of chemicals listed under EPA's Fifth Unregulated Contaminant Monitoring Rule. The pilot includes the following unit processes for source water treatment: air stripper, ultrafiltration, reverse osmosis, UV-advanced oxidation process, adsorptive media contactor, chemical feed systems, and ancillary equipment.

Subcriterion 1b – Evaluation of project alternatives (15 points)

Describe the objectives that all alternatives will be designed to meet.

The city's alternatives will be designed to meet multiple objectives, identified in the Utility Plan as "planning drivers." Table 2 below summarizes the internal and external objectives the city used to guide its planning effort and Utility Plan development.

Table 2. Planning Drivers, Criteria, and Key Takeaways

<i>Planning Driver</i>	<i>Criteria</i>	<i>Key Takeaways</i>
Planning Area and Population Forecasts	<ul style="list-style-type: none"> ▪ Planning area expansion inc., East Columbia and Ten-Mile Creek ▪ Growth: 261,123 (2015) to 325,028 (2040); buildout 424,797 	<ul style="list-style-type: none"> ▪ City population expected to increase 24% by 2040, requiring increased water management capability.
External Demands <ul style="list-style-type: none"> • <i>Flows and Loads</i> • <i>Regulatory Requirements</i> • <i>Climate Change</i> 	<p>Projected Combined Flows and Loads</p> <ul style="list-style-type: none"> ▪ Buildout flows of 62.8 mgd (peak month) ▪ BOD loadings 98,250 lbs/day (peak month) ▪ TSS loadings 99,620 lbs/day (peak month) <p>Regulatory Requirements</p> <ul style="list-style-type: none"> ▪ Temperature limits for West Boise water renewal facility (WRF) ▪ Phosphorus limits (Total Maximum Daily Load [TMDL]) ▪ Whole effluent toxicity testing <p>Climate Change</p> <ul style="list-style-type: none"> ▪ Increased heat stress days frequency (16 days/summer historical baseline to 66 days/summer by 2050) ▪ Increased irrigation demands (+2" by 2030 and +4" by 2050) ▪ Drought frequency to increase from 1 in 4 years to 1 in 2 years ▪ Exceptional drought frequency projected to increase from 1 in 12 years to 1 of every 3-4 years by 2050 	<ul style="list-style-type: none"> ▪ Population growth requires additional treatment and discharge capacity, water supply resiliency. ▪ Temperature and phosphorus limits are key drivers to limiting discharge to river from new WRFs. ▪ Water supply challenges are on the horizon, with increases expected in the frequency of drought and heat stress days, as well as irrigation demands.
Existing System Overview and Performance* <ul style="list-style-type: none"> • <i>Collection System</i> • <i>Lander Street WRF</i> • <i>West Boise WRF</i> 	<ul style="list-style-type: none"> ▪ Lander Street WRF: 15.0 mgd, built in 1948 (75 years old) ▪ West Boise WRF: 24.0 mgd, built in 1980 (43 years old) 	<ul style="list-style-type: none"> ▪ Collection system is relatively new (constructed in last 30 years) and in good condition. ▪ Existing WRFs are older facilities requiring expansion and upgrades to meet future NPDES permit requirements.

Table 2. Planning Drivers, Criteria, and Key Takeaways

<i>Planning Driver</i>	<i>Criteria</i>	<i>Key Takeaways</i>
Financial and Organizational Capacity	<ul style="list-style-type: none"> ▪ Rates and fees revenue must be adequate to fund operating expenses and capital projects. ▪ City generates approximately \$65M in revenue from rates and fees (as of 2020). The fund balance was \$53.7M in 2019. ▪ Affordability is a city and community priority. ▪ Water Renewal Services (WRS) has +300 employees that serve critical functions to meet community expectations. 	<ul style="list-style-type: none"> ▪ Revenue increases needed to cover growing operational costs and capital expenditures related to growth, regulatory requirements, and infrastructure condition.
Community Expectations <ul style="list-style-type: none"> • <i>Level of Service (LOS)</i> • <i>Community Engagement</i> • <i>Community Expectations</i> 	<ul style="list-style-type: none"> ▪ Nine LOS goals based on community input, provide direction for WRS. ▪ Community engagement identified community priorities as reusing water resources, limiting environmental impacts, prolonging asset life, and planning for growth. ▪ In community Focus Group sessions, storing renewed water in the TVR aquifer received the most support, with 44% of participants selecting it as the preferred water opportunity. Renewed water for irrigation was second at 34%. 	<ul style="list-style-type: none"> ▪ LOS goals include protecting the Boise River and recovering, recycling, and renewing water, energy, and other products, among others. ▪ Community wants to help the environment by reducing overall water usage or reusing water, balancing this with cost considerations. ▪ Community interest in maximizing city water resources to prepare for future growth and be resilient to climate change and groundwater availability.

* Does not include city’s Twenty Mile South Biosolids Application Site or Dixie Drain Phosphorus Facility.

What other water supply alternatives and project alternatives will be investigated?

Table 3 summarizes the potential long-term discharge alternatives the city evaluated to address the planning drivers and help address future water supply challenges.

Table 3. Summary of Alternatives Evaluated to Address Planning Drivers

<i>Alternative</i>	<i>Description</i>
1 River Discharge	Status quo of continuing to discharge renewed water to the Boise River
2 Enhance the River	Enhances Boise River water quality and ecosystem health beyond current regulatory requirements using a multi-faceted approach (e.g., restoring native riparian vegetation, side channels and wetlands; modernizing agricultural practices; and higher treatment at existing WRFs to address emerging contaminants of concern)
3 Industrial Reuse	Provide recycled water to local industries to offset potable water use and support city's economic development vision
4 Aquifer Recharge	Use recycled water to recharge the TVR aquifer where soil and groundwater conditions are favorable. As climate change and local growth continue to heighten water demand and stress supplies, groundwater resources will hold critical value in the future
5 Local Food Production	Use Class A recycled water to produce food for human consumption
6 Closed-Loop System	Maximize water use within homes and businesses by recycling and reusing water repeatedly for non-potable uses (closed-loop); implement in planned communities
7 Decentralized Management	Employ new, smaller wastewater treatment facilities for high-growth areas enabling local control and water resources management

The city developed six investment portfolio options that were combinations of Alternatives 1-7 above. These portfolios describe how and where the water would be renewed and ultimately used. A diversified portfolio of alternatives enables more water use opportunities and benefits and mitigates short- and long-term risk. All six portfolios included some form of recycled water for industrial reuse and groundwater recharge.

Describe how the planning activities will develop project alternatives (water supply sources, reuse strategies, or treatment technologies) that have been or will be investigated.

The proposed Project's planning activities will provide critical data and information for the city to fully develop project alternatives and enable the city to successfully implement the RWP. The Project activities will focus on decreasing uncertainty in the viability and cost of

Alternative 4, which has more uncertainty compared to other alternatives that involve expansion of existing systems. The planning and feasibility activities will inform treatment technology selection, site selection for the recycled water distribution system, and identify sites suitable for groundwater recharge. The groundwater recharge site geophysics will involve a geophysical characterization technique (surface-based resistivity), surface-based magnetics and seismic methods. These methods will provide information about subsurface conditions and help the city identify areas suitable for groundwater recharge. In addition, the surface-based magnetics and seismic studies will be accomplished in partnership with Boise State University. This partnership reflects the city's commitment to working with local universities and advancing research in the State.

The site characterization work will obtain the geologic, hydrogeologic, and geochemical information necessary to support land acquisition, permitting, and decision-making for the groundwater recharge pilot testing and full-scale facility location and method identification. It will also support groundwater modeling necessary to support the reuse permit application and injection well permit application, if required.

Provide a general description of the selected project, including project features, benefits, anticipated costs, and analyses conducted.

GENERAL DESCRIPTION:

The RWP will involve developing an industrial recycled water program and pursuing groundwater recharge, including construction of key features like the two Facilities, and conveyance systems for industrial water and recycled water distribution. Fig. 3 illustrates the city’s selected water management approach with the emphasis on enhancing the Boise River, developing an industrial recycled water program, and pursuing groundwater recharge.

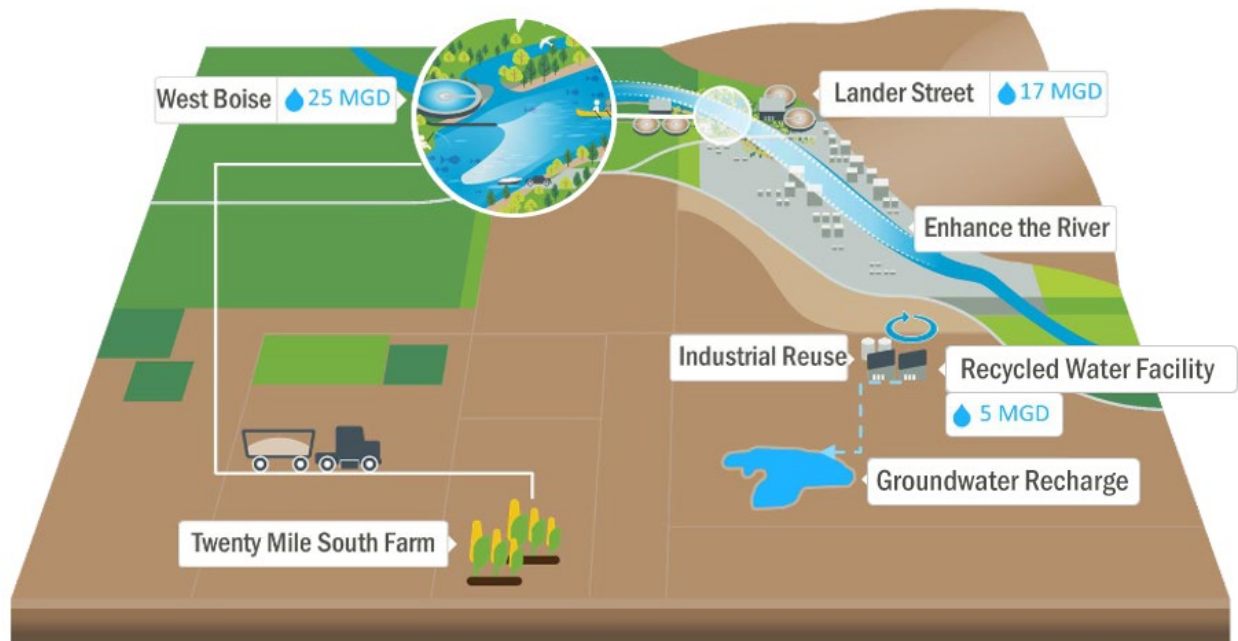


Fig 3. City’s Selected Water Management Approach and Project Features

BENEFITS:

The RWP benefits align with the city’s LOS goals. These benefits include:

- Improves use of water resources and lowers recycled water transportation costs to areas where it can be beneficially used by building new WRFs closer to where growth is projected to occur and closer to areas for groundwater recharge and industrial reuse.
- Positions the city to respond to future water challenges by diversifying what the city does with its renewed water.
- Enables the city to best manage water resources in the future as drivers like population growth and climate change continue to evolve.
- The city’s BCE analysis indicated recycled water availability will drive economic development. The estimated benefit cost of recycled water availability is [REDACTED]. This benefit cost was quantified as the new industries relocating to Boise, generating direct and indirect positive economic impacts.
- Bolsters groundwater supply through groundwater recharge to limit risk exposure to climate change-driven impacts

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Groundwater quantity benefit benefits were estimated using the cost of infiltrating surface water into the ground (IWRB Treasure Valley Aquifer Recharge Study, 2019). The BCE assumed the value of groundwater to be [REDACTED], with 100% probability. The annual adjusted benefit cost is

[REDACTED] for aquifer recharge (stemming from additional 4th Facility).

COSTS:

A summary of anticipated Project costs is provided in Table 4.

Table 4. RWP Features and Costs for the 2022–2029 Capital Planning Period

<i>Program Element</i>	<i>Assumptions</i>	<i>Projected Cost*</i>
RWF Construction	<ul style="list-style-type: none"> ▪ Maximum influent flow: 4.6 mgd ▪ Facility treatment assumption: Mainstream Reverse osmosis with sidestream physical/chemical treatment 	[REDACTED]
Conveyance to Industrial Reuse	<ul style="list-style-type: none"> ▪ Pump and conveyance sizing: 1.0 mgd 	[REDACTED]
Conveyance to Groundwater Recharge	<ul style="list-style-type: none"> ▪ Pump and conveyance sizing: 3.6 mgd 	[REDACTED]
GWRF	<ul style="list-style-type: none"> ▪ Maximum flow: 5 mgd ▪ Technology assumption: Infiltration Basins 	[REDACTED]
Total Project Costs		[REDACTED]

* Costs finalized December 2020 and are unescalated 2020\$. Class 5 estimate ranges (i.e., assumed cost range is -50%, +100% of presented value).

ANALYSES CONDUCTED:

The city’s analysis approach for portfolio selection is the BCE process. The BCE is a sophisticated methodology that uses objective criteria and life cycle present value analysis to evaluate the portfolios in a decision. The BCE considers capital, operation and maintenance, and risk and benefit costs associated with asset ownership to provide a holistic view of the financial components and considerations that come with each portfolio being evaluated.

The BCE results indicated that developing the RWP is the optimal choice for the city’s future water management. The BCE results indicated this option had the lowest net present value, or lowest cost of asset ownership considering each alternative’s unique risks and benefits.

Include a preliminary schedule showing major tasks, milestones, and dates for the planning, design, and construction activities related to the project.

Fig. 4 illustrates the expected Project schedule.

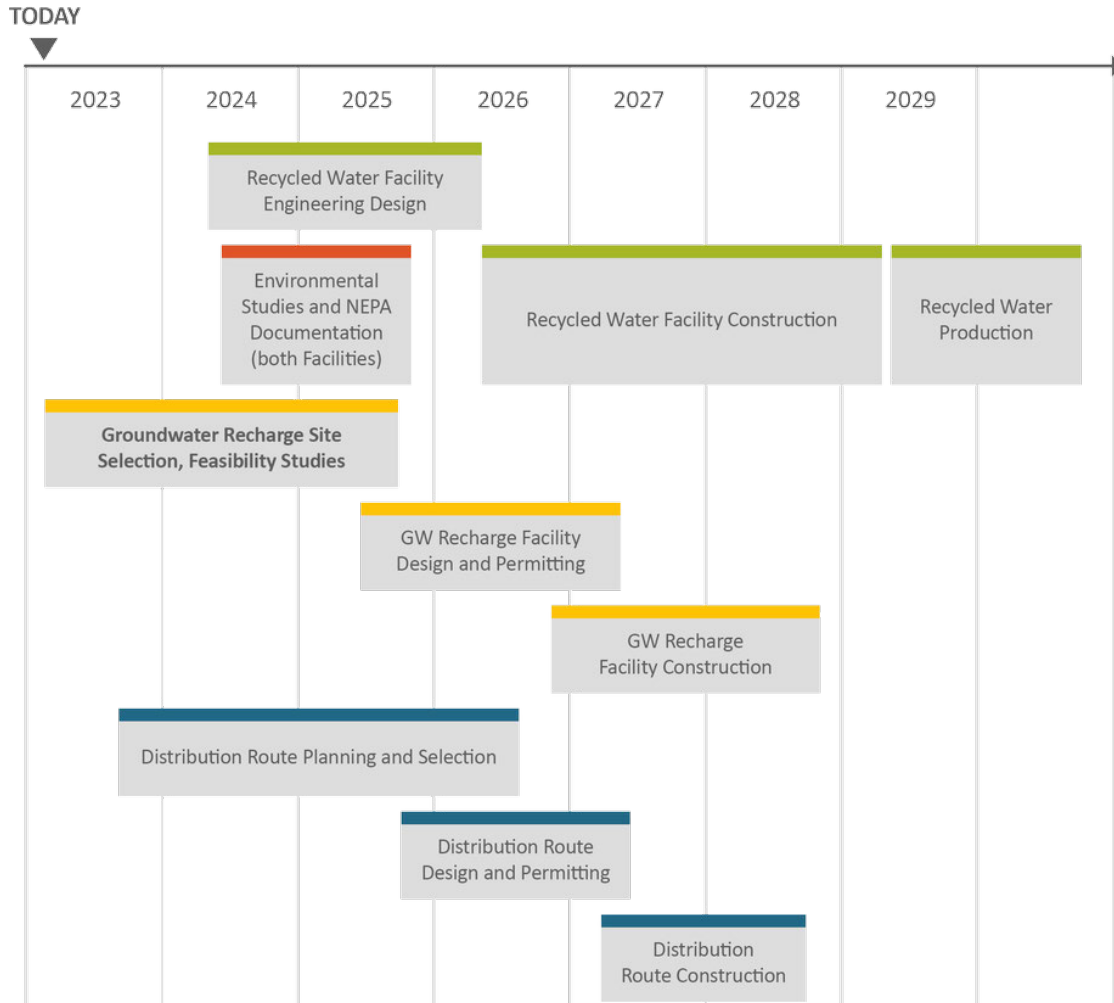


Fig 4. Project Schedule

Evaluation Criterion 2 – Stretching water supplies (20 points)

Describe the potential for the project to reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies.

TVR communities are looking for solutions to meet supply and demand imbalances, including investments in new, non-recycled water sources. By 2065, TVR DCMI water demand will more than double, with an increase of 188,000 acre-feet per year (IDWR, 2016). The RWP will help reduce the

need for new non-recycled water supplies to meet this growing demand by developing a RWF for industrial reuse and groundwater recharge.

The city’s two existing WRFs, West Boise and Lander Street, treat a combined 30 mgd and discharge renewed water into the Boise River. Boise projects a 20% increase in treatment systemwide capacity is needed by 2040 to support city-wide population and industry growth, including the rapid expansion of water intensive industrial facilities in the southeast region of the city. As

system capacity needs rise, these WRFs will be unable to meet this demand.

The Project will reduce 5 mgd of flow currently managed through the existing WRFs by redirecting industrial flow to the new RWF. Reduction in flow will maximize system capacity and provide Boise with treatment flexibility to allow for more municipal treatment opportunities amid record community and industry growth.

The RWP represents a significant evolution in resource management for WRS and reflects community values of seeking more from local water resources, through water reuse. Recycled water development will position Boise to better respond to future water challenges, and ultimately help reduce the need for additional capacity that could be met by non-recycled water supplies. Diversifying end uses gives the city flexibility to best manage water resources in the future as temperature, precipitation, and drought conditions continue to evolve across the Western region due to the impacts of change climate.

Describe the potential for the project to alleviate pressure on existing water supplies and/or facilities. Please describe the existing water supplies, identify the supplies and/or facilities that will be impacted and explain how they will be impacted by the Project, including quantifications where applicable.

The RWP will alleviate pressure on both existing water supplies and treatment facilities. The southwestern Idaho region faces drought conditions and depleting groundwater supplies during a period of rapid regional expansion and economic growth. Despite recent storms, 71% of Idaho remains in moderate to severe drought as of February 2023 (US Drought Monitor, 2023). According to the Natural Resource Conservation Service Boise Basin Surface Water Supply Index, surface water supplies were insufficient in 1 out of every 5 years, on average. During periods of reduced surface water supply, irrigators turn to groundwater to meet water demands. While some TVR areas show local aquifer stability, others have shown significant decline (IDWR, 2016). Irrigation water suppliers own water rights for groundwater diversion which are used each year.

Most often irrigation wells target the shallow aquifer, which feeds most of the groundwater supply in the TVR. By diverting the draw of water supplies through industrial recharge, and by replenishing the aquifer through groundwater recharge, the RWP will improve the long-term availability and stability of regional water resources.


Describe the potential for the project to make water available to address a specific concern. Explain the specific concern and its severity. Also explain the role of the project being investigated in addressing that concern and the extent to which the project will address it. Specific concerns may include, but are not limited to: water supply shortages, water supply reliability, groundwater depletion, water quality issues, natural disasters that may impact water supply infrastructure, heightened competition for water supplies, availability of alternative supplies, increasing cost of water supplies.

The proposed Project will further the advancement of the RWP, which will renew the used water supply and provide a consistent source of water to local industries and to the GWRF. By investing in recycled water, Boise will diversify its water supply and address a multitude of local and regional water supply and resiliency concerns amid a changing climate in the West. Table 5 presents a summary of specific concerns and how the project will help address these concerns.

Table 5. Overview of Specific Concerns

<i>Specific Concern</i>	<i>Severity</i>	<i>Overview Of Concern</i>	<i>How Project Will Address Concern</i>
Water Supply Shortages	High	<ul style="list-style-type: none"> Increased population growth (250% between 2015 - 2065) and urban/suburbanization and rising temperatures to result in increased water demands in the LBRW. In SW Boise, residents who rely on shallow wells to supply household water are experiencing supply disruptions amid rapid development (BoiseDev, 2021). 71% of Idaho remains in moderate to severe drought as of February 2023 (US Drought Monitor, 2023). 	<ul style="list-style-type: none"> Provides a consistent water source that can help offset usage during times of water shortage. Preserves drinking water (potable) sources for the wider community and region by reducing industrial usage.
Water Supply Reliability	High	<ul style="list-style-type: none"> Boise relies primarily on groundwater for its water supply. Forecasts show that groundwater supply reliability across TVR will decrease due to climate change's impact on precipitation patterns, snowpack, and increased spring warming. 	<ul style="list-style-type: none"> Improves water supply reliability by providing a consistent water source to local industries and the GWRF.
Groundwater Depletion	High	<ul style="list-style-type: none"> Groundwater depletion is a top concern in the arid West. Much of Idaho's water comes from the Eastern Snake River Plain Aquifer (ESRPA), which has faced declining water levels for decades. In Boise, the RWP could bring a new water supply to the 17-square mile SE Boise Groundwater Management Area (SEBGWMA). The SEBGWMA designated by IDWR meets criteria for approaching critical groundwater area conditions 	<ul style="list-style-type: none"> Increases groundwater supply and combats groundwater depletion via storage. This water would otherwise be renewed and discharged into the Boise River through existing WRFs.
Water Quality Issues	Moderate	<ul style="list-style-type: none"> Though Boise's WRS complies with all regulations, treated wastewater contains nutrients such as nitrogen and phosphorus. These nutrients are detrimental to cold-water-fish-hosting streams such as the Lower Boise and Snake Rivers. Redirecting reclaimed water for reuse supports the community's history of protecting the Boise River, a valued natural asset. 	<ul style="list-style-type: none"> Enhances regional water quality by producing recycled water, instead of discharging to the Boise River. Improves surface water quality for the watershed by removing sediment, reducing temperature and nutrient loads.

Table 5. Overview of Specific Concerns

Specific Concern	Severity	Overview Of Concern	How Project Will Address Concern
Natural Disasters	Moderate	<ul style="list-style-type: none"> Natural disasters in the Project area that could impact infrastructure include flooding, drought, and wildfires. TVR has experienced increased wildfires and air quality impacts from wildfire smoke. 	<ul style="list-style-type: none"> The RWP will provide a resilient water source that should not be impacted by natural disaster. Boise will consider resiliency when developing the RWF’s infrastructure design to help mitigate against extreme events.
Heightened Competition for Water Supplies	High	<ul style="list-style-type: none"> TVR population growth will drive increased water supply competition. TVR metro area projected to grow to 1.57 million people. Average yearly water demand will rise between 219,000 and 298,000 acre feet of water per year, at least double the 2015 demand. Agricultural water users who rely on seasonal irrigation canals will also be competing for diminishing water resources. 	<ul style="list-style-type: none"> Recycled water will prove critical in reducing competition for diminishing water supplies. Recycled water to offset industrial demand and increase water supply via groundwater recharge.
Availability of Alternative Supplies	High	<ul style="list-style-type: none"> Boise currently discharges all treated water to the Boise River and the local community relies primarily on groundwater for its water supply. Alternative water supplies include additional recycled water projects. 	<ul style="list-style-type: none"> Use the RWP to gain stakeholder confidence in recycled water and attract additional recycled water customers. Model for how other programs can be implemented across Idaho.
Increasing Cost of Water Supplies	Moderate	<ul style="list-style-type: none"> Amid increased demand and diminishing water supplies, the cost of water is expected to increase across TVR. Boise must expand its wastewater system capacity by 20% by 2040 and is facing discharge limitations. Maximizing system capacity by investing in recycled water will help lessen the financial burden on the city’s ratepayers. Based on the USEPA’s definition of “low-income” (where the household income is less than or equal to twice the federal poverty line), 31% of the Boise population is low-income (Draft Water Renewal Services Programmatic Environmental Document [PED], 2022). 	<ul style="list-style-type: none"> By investing in recycled water and opening a new, alternative supply, the RWP will help stabilize the cost of water across the region. The RWP’s GWRF will increase the resilience of groundwater resources across the region and may delay the need to drill new, costly wells.

Describe the potential for the project to help create additional flexibility to address drought. Will water made available by the project being investigated continue to be available during periods of drought? To what extent is the water made available by the project being investigated more drought resistant than alternative water supply options? Explain.

The Project will provide resiliency against drought conditions through consistent industrial recycled water production, which represents a new water source for the city. It will also further bolster local groundwater supply through the GWRP. The RWP will provide a consistent water source available during both standard and drought conditions. In the future, the city will be able to respond to changing conditions and assess the best use of recycled water through the RWP’s Highest and Best Use Policy.

The Project will enable Boise to foster continued community support and confidence in recycled water, establishing the precedent for different and expanded future uses for city recycled water investments.

Evaluation Criterion 3 – Environment and water quality (20 points)

The RWP will enhance regional water quality by producing up to 5 mgd of recycled water to be used for groundwater recharge and industrial reuse, instead of being discharged into the Boise River. This improves surface water quality for the Boise River-Snake River system by removing sediment, lowering temperatures, and mitigating nutrient loads to help achieve TMDL water quality goals.

Table 6 lists the major water bodies, including their beneficial uses and impairments, impacted by the Project.

Table 6. TVR Surface Water Uses and Concerns

<i>Water Body</i>	<i>Beneficial Uses</i>	<i>Impairments</i>	<i>Project Impacts</i>
Lower Boise River	<ul style="list-style-type: none"> ▪ Cold water aquatic life ▪ Salmonid spawning ▪ Domestic water supply ▪ Primary contact recreation ▪ Wildlife habitat 	<ul style="list-style-type: none"> ▪ Sedimentation/siltation ▪ Fecal coliform ▪ Nutrients ▪ Physical substrate habitat alterations ▪ Low flow alterations 	Eliminates a potential source of sediment and bacteria, mitigates temperature and nutrient levels by diverting effluent from the Nampa WWTP

Describe the potential for the project to improve the quality of surface water or groundwater.

The RWP will ultimately improve surface water quality in the Snake River watershed. The Lander Street and West Boise WRFs currently discharge treated wastewater to the Boise River. While the discharges meet current permit limits, certain nutrients (i.e., nitrogen and phosphorus) are detrimental to cold-water-fish-hosting streams like the Lower Boise and Snake Rivers, as well as warm-water species inhabiting the Brownlee Reservoir. However, nutrients are essential for plant growth and considered beneficial for agriculture. Diverting treated discharges will prevent additional nutrient loadings or elevated

temperature water from entering the Lower Boise River and ultimately the Snake River. This diversion will improve water quality in these protected rivers, helping to achieve beneficial use and water quality goals.

Describe the potential for the project to improve effluent quality beyond levels necessary to meet State or Federal discharge requirements.

The RWP will improve effluent quality beyond levels necessary to meet discharge requirements. by employing treatment technologies to produce recycled water that meet or exceed state water quality standards for industrial reuse (IDAPA 58.01.17) and groundwater quality (IDAPA

58.01.11) for aquifer recharge applications. Upon implementation, the RWF will achieve Idaho's highest treatment standards for industrial reuse and aquifer recharge. In addition to meeting groundwater standards, the selected treatment processes will remove emerging contaminants. As the regulatory landscape and community expectations continue to evolve, the city's treatment approach will adapt to these drivers.

Describe the potential for the project to improve flow conditions in a natural stream channel.

The Project will improve flow conditions for the Lower Boise River by enhancing groundwater supply in the aquifer, which indirectly benefits surface water stream flows via groundwater seepage. Groundwater recharge will also protect the Lower Boise River through the treatment and infiltration of used water that reduces pollutants discharged to the Boise River (Utility Plan, 2020).

Describe the potential for the project to restore or enhance habitat for non-listed fish and wildlife species.

The Project will help restore/enhance habitat for non-listed fish and wildlife species. Numerous trout species, including rainbow, brown, and steelhead, as well as bass, whitefish, catfish, and bluegill are present in the Boise River. The Snake River is considered one of the finest trout fishing rivers in the United States. It is home to native Yellowstone cutthroat, rainbow, and brown trout. These species will benefit from reduced nutrient loading, which will reduce algae growth. These fish require cold, oxygen-rich water. In addition to improved water quality, the groundwater recharge will enhance flow conditions via groundwater seepage, as previously described. By reducing effluent discharges to the Boise River, the city is helping to reduce sediment, nutrient, temperature, and bacteria loadings in the Lower Boise River and, subsequently, the Snake River.

Describe the potential for the project to provide water or habitat for federally listed threatened or endangered species.

The Project will indirectly support habitat for federally listed threatened species, specifically the

Snake River Basin steelhead. This Endangered Species Act (ESA) threatened species will benefit from the reduction of nutrient loads to the Lower Boise River and the enhanced flows from groundwater seepage. The Snake River Recovery Sub-Domain is one of three sub-domains within the Interior Columbia River Recovery Domain. It is home to four ESA-listed salmon/steelhead species: Snake River sockeye, Snake River spring/summer Chinook, Snake River fall Chinook, and Snake River steelhead.

Evaluation Criterion 4 – Department of the Interior Priorities (15 points)

CLIMATE CHANGE

Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.

In alignment with Boise's Climate Action Roadmap and Energy Future Plan, the RWP will reduce greenhouse gas (GHG) emissions to help combat the climate crisis by offsetting emissions at other city facilities. As detailed in these two plans, the city's facilities and operations will be powered by 100% clean or renewable electricity sources by 2030 and achieve carbon neutrality by 2035. WRS currently represents ~40% of electricity consumption by city operations and facilities. Constructing the RWF will inherently increase power consumption and GHG emissions. However, the Projects are aligned with Boise's Energy Plan, and all energy exceeding current energy usage will be offset by renewable energy. In addition, the RWP will help Boise address the impacts of climate change on water reliability by providing a new, reliable water source through the production of recycled water.

Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?

The proposed Project furthers the advancement of the RWP, which will strengthen water supply sustainability and increase climate change resiliency by providing a recycled water source to

be put to beneficial use through groundwater recharge and industrial reuse. Recycled water will provide a consistency source of water that can help Boise offset usage amid the impacts of climate change and regional growth. The GWRP will pump renewed water back into the ground to be stored for future use. Additionally, by reducing the need for the industrial users to use drinking water sources, drinking water will be preserved for the wider community and region. The RWP represents an evolution in how the Boise community uses and renews its water resources.

DISADVANTAGED OR UNDERSERVED COMMUNITIES

Will the proposed project serve or benefit a disadvantaged or historically underserved community? Benefits can include public health and safety by addressing water quality, new water supplies, or economic growth opportunities. 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. Describe in detail how the community is disadvantaged based on a combination of variables.

Yes, the Project will advance the RWP, which will benefit historically underserved communities in Boise, including low-income communities through increased water resiliency and unlocked economic investment. Water, public health, and protecting quality of life are central to Boise’s mission of “Creating a City for Everyone.” The city is committed to ensuring that these rights are provided to the entire Boise community, and especially communities who have been traditionally underserved and underinvested in.

In 2022, the city used USEPA’s Environmental Justice Screening and Mapping Tool (EJSCREEN) to evaluate the environmental and community health impacts of implementing its Utility Plan (Draft Water Renewal Services

Programmatic Environmental Document [PED], 2022). Based on the EJSCREEN Report and USEPA’s definition of “low-income” (where the household income is less than or equal to twice the federal poverty line), about 31% of the Boise population is low-income. Fig. 5 shows the breakdown of household-by-household income in Boise.

Description	2014–2018 Census Estimates	Percent
Household income base	88,799	100
< \$15,000	10,022	11
\$15,000–\$25,000	9,118	10
\$25,000–\$50,000	19,934	22
\$50,000–\$75,000	16,189	18
\$75,000 +	33,525	38

Source: EJSCREEN ACS Summary

Fig 5. Households by Household Income

Boise’s population is primary of white origin (86%). The Boise community also has a growing Hispanic/Latino population (8.8% in Boise and 9.1% across Ada County) (Census, 2020). Additionally, some members of the Boise community experience linguistic isolation, meaning they speak a language other than English, and also speak English but less than “very well.” The EJSCREEN report found that 2% of Boise’s population are individuals who are linguistically isolated (PED, 2022). The RWP’s planned *Good Neighbor Policy* will establish how to coordinate with the city’s community outreach, language access, and community accessibility teams to ensure diverse communities, including Boise’s Hispanic/Latino and linguistically isolated communities, are engaged in decision-making related to the RWP and benefit from its investments.

With growing commercial and industry investments in SE Boise, the city aims to attract high-quality jobs that benefit the Boise community, including traditionally underserved communities. The RWP will develop a *Climate Economy Policy* to help implement a plan to create jobs that support the climate and the community through its investments. The RWF will require highly skilled operators to run the complex treatment processes. The city can partner with Idaho Department of Labor and Idaho DEQ to support operator trainings. Additionally, the development of a new water source, through recycled water, will enable Boise to accommodate greater industry expansion and job growth. Boise can invest in workforce development initiatives, such as partnering with local universities, regional agencies, and community groups representing diverse communities, to build a talent pipeline and bring Boiseans high-quality jobs.

TRIBAL BENEFITS

Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for an Indian Tribe?

The RWP's GWRF boundary area and surrounding areas are within the ancestral homelands of the Shoshone-Bannock Tribes. This information can be used for future collaboration with the Tribes as stakeholders and partners in the city's commitment to protecting vital natural resources and identifying water management opportunities. The RWP's planned *Good Neighbor Policy* will outline the approach of how to engage with neighboring communities, including Tribes.

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 by addressing water quality, new water supplies, or economic growth opportunities?

The project will not directly support tribal resilience to climate change or drought impacts. However, the RWP will strengthen water supply sustainability and resilience to climate change for water users across the TVR and Lower Snake River Basin through groundwater recharge.

Evaluation Criterion 5 – Watershed perspective (15 points)

Will the proposed project implement a regional or state water plan or an integrated resource management plan? Explain.

The city's water supply goals are aligned with state priorities. The RWP supports Idaho's State Water Plan (ISWP) which guides water resources use, conservation, and management in Idaho. The ISWP identifies aquifer stabilization as a statewide priority to be accomplished, in part, by managed aquifer recharge. It describes the framework for statewide, long-term stewardship and aquifer management. The TVCAMP, a regional groundwater management plan, is a component of the ISWP. The RWP aligns with the goals and actions recommended in the TVCAMP. The RWP also supports the SE Boise Water Management Area Management Plan (SEBGWMA), established in 2001 to "...curtail the trend of declining water levels while protecting the rights of existing water users." Some of the goals from the Plan include protecting water rights and water quality and maximizing the benefit of and augmenting the water resource within the management area, including aquifer recharge and other approved management activities (IDWR, 2001).

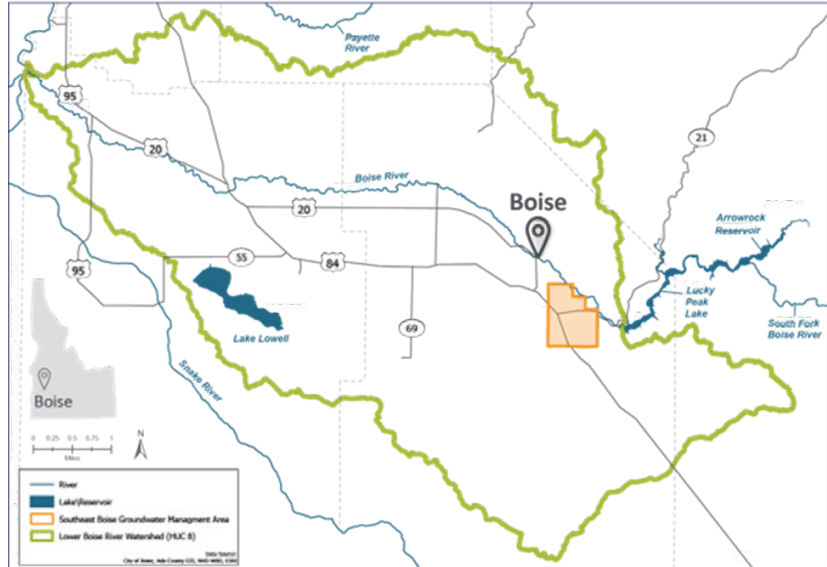
Will the proposed project help meet the water supply needs of a large geographic area, region, or watershed? Explain.

The RWP is helping meet water supply needs of the TVR, the LBRW, and the 17-sq. mile SEBGWMA (**Fig. 6**). The RWF will provide a consistent recycled water source to local industries, offsetting industrial potable water use and more effectively managing water supply. The GWRF will provide an additional recharge source and mitigate groundwater overdraft. As climate change trends such as increasing temperatures and decreasing snowpack continue, water storage availability will continue to pose challenges to the service area. The recycled water will be treated to high standards established by Idaho DEQ for industrial reuse (IDAPA 58.01.17) and aquifer recharge (IDAPA 58.01.11). Additional treatment

SECTION 2: Technical Proposal and Evaluation Criteria

will be achieved as water percolates through sand and gravel through infiltration basins or vadose zone injection. Healthy aquifer levels also benefit the LBRW via groundwater seepage. This additional groundwater supply will benefit local farmers, communities, industries, and wildlife habitat during dry years.

Will the proposed project promote collaborative partnerships to address water-related issues? Explain. Describe stakeholder involvement in the project planning process.



Yes, the proposed Projects and the RWP promote collaborative partnerships to address water-related issues. To support SEBGWMA's water monitoring network, Boise provides access to its wells. As water supply challenges increase, Boise can continue to collaborate with IDWR and other water users to manage supply and demand issues. During RWP planning, the city has also engaged with potential industrial customers to build partnership around shared climate goals and to understand how they may benefit from the RWP. Micron Technologies' recent announcement to invest \$15B in Boise over the next decade is in part a testament to the industry's confidence in the city being able to meet its expanded water needs.

The city is committed to using the best available science and technology to not only establish a robust RWP, but to also share the knowledge regionally and model how other Idaho recycled water programs can be implemented. In 2021, Boise partnered with National Water Research Institute to form an advisory group to provide scientific, technical, and policy advice on challenging issues that may arise as the RWP develops. As the RWP matures, the city can provide similar expertise to and foster collaborative partnerships with other entities interested in advancing recycled water such other

municipalities, irrigation districts, potential recycled water users, and regulators.

Will the proposed project include public outreach and opportunities for the public to learn about the project?

Through the Project, WRS will uphold its vision to build a program that reflects community values and maximizes community benefits by executing a stakeholder engagement strategy to increase water resource literacy, educate the public about the Project, and engage the community in decision-making. The public will be invited to visit the RWP pilot and interact with staff to learn about the treatment processes and the city's recycled water vision. Building stakeholder confidence and transparently sharing water quality data are key pilot goals. The RWP is leveraging the city's community outreach, language access, and community accessibility teams to develop an engagement strategy that reaches the diverse Boise community.

The city plans to continue engaging the public in future RWP decisions. The RWP's planned *Good Neighbor Policy* will establish a framework for how the program listens to and engages with the Boise community equitably to ensure all Boiseans can weigh in on the future of the program.

PROJECT BUDGET

Funding Plan and Letters of Funding Commitment (if applicable)

- Describe how the non-Federal cost share will be obtained.
- Project funding provided by a source other than the applicant should be supported with letters of commitment from these additional sources and should identify the following elements:
 - The amount of funding commitment
 - The date the funds will be available to the applicant
 - Any time constraints on the availability of funds
 - Any other contingencies associated with the funding commitment

Budget proposal

Table 7. Summary of Non-Federal and Federal Funding Sources

<i>Funding Sources</i>	<i>Amount</i>
Non-Federal Entities	
1. City of Boise	\$2,233,043
2.	
3.	
Non-Federal Subtotal	\$2,233,043
REQUESTED Reclamation Funding	\$1,000,000

The budget proposal should include detailed information on the categories listed below, and it must clearly identify all items of cost, including those that will be contributed as a non-Federal cost share by the applicant (required and voluntary), third-party in-kind contributions, and those that will be covered using the funding requested from Reclamation, and any requested pre-award costs (Table 7).

Table 8. Total Project Cost

<i>Source</i>	<i>Amount</i>
Costs to be reimbursed with the requested Federal funding	\$1,000,000
Costs to be paid by the applicant	\$2,233,043
Value of third-party contributions	
TOTAL Project Cost	\$3,233,043

Summary			
6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$0		
b. Fringe Benefits	\$0		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$3,233,043		
g. Construction	\$0		
h. Other Direct Costs	\$0		
i. Total Direct Costs	\$3,233,043		
i. Indirect Charges	\$0		
Total Costs	\$3,233,043	\$1,000,000	\$2,233,043
Cost Share Percentage		31%	69%

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- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

SECTION 3

Required Permits or Approvals

(Recommended)

While the proposed planning activities included within this application are not subject to permit requirements, the Recycled Water Facilities will be subject to a number of state and Federal permits. A **comprehensive permit plan** will be developed for the Project. The plan will incorporate both permits and environmental and cultural requirements so that all can be completed in a coordinated manner. The permits specifically applicable to recycling and reuse of wastewater are:

State:

- Recycled Water Permit (DEQ) and Solids Management Plan
- UIC Permit for Aquifer Recharge (IDWR)
- Air Quality Permit
- Drilling Permits
- Construction General Permit (SWPPP)
- Right of Way Encroachment
- IPDES permit
- Fish and Game – wildlife issues, migratory paths, plants
- Water Rights Evaluations

Federal:

- FAA exemption
- Source Water Protection measures
- NEPA evaluation
- Section 404/401 Permits
- US Fish and Wildlife Service – threatened and endangered species
- Section 106 cultural resources protections

Local:

- Design Review
- Comprehensive Plan Amendment
- Conditional Use Permit
- Floodplain Permit
- Pretreatment / Local Limits Evaluation
- Master Site Plan
- Septic Permit
- Zoning Ordinance Map Amendment and Development Agreement
- Hillside Permit
- Fire Department Approval
- Ada County Highway District Driveway Approach Access Permit
- Record of Survey (Land Division or Adjustment)
- Traffic Impact Study
- Wildlife Safety and Mitigation Plan
- 524 Permit – Commercial Grading and Drainage with Utilities
- 502 Permit – New Commercial and Commercial Additions
- 526 Permit – Commercial Rough Grading
- ACHD Temporary Right of Way Approach Permit

SECTION 4

Official Resolution

(Recommended; will not count toward the page limit)



City of Boise

Resolution

Resolution

Legal
150 N Capitol Blvd
Boise, ID 83702
(208) 972-8531

TO: Mayor and Council
FROM: Mary Grant, Legal
NUMBER: RES-88-23
DATE: February 8, 2023
SUBJECT: U.S. Bureau of Reclamation WaterSMART Grant Opportunity

BACKGROUND:

The Recycled Water Program will facilitate the implementation of the city's Recycled Water Facility that will treat industrial wastewater for purposes of industrial reuse and groundwater recharge. City staff and the Recycled Water Program team have been actively working on next steps for the Recycled Water Program and continue to work on funding opportunities to relieve impacts to ratepayers.

The U.S. Bureau of Reclamation (USBR) WaterSMART Title XVI grant funding is provided to applicants for activities such as "...the development of new water recycling and desalination feasibility studies; planning and preliminary design activities for water recycling or desalination construction projects; or environmental compliance activities for water recycling or desalination construction projects." Grant funds may be used for planning and feasibility studies-related work only (not construction costs). Approximately \$30 million in available program funds will be distributed, with a maximum award of \$1,000,000 for Funding Group I. A non-federal cost share of 50 percent or more of the total project costs is required for Funding Group I.

The USBR WaterSMART grant eligibility requirements include 1) Approved Feasibility Study, 2) City-approved funding for the project, and 3) compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act, and 4) eligible activities which may include: development of new water recycling feasibility studies, preparation of preliminary project cost estimates, site specific investigations to gather design data, development and evaluation of project alternatives, collecting data and gathering documentation for environmental and cultural resources compliance, and other pre-final design activities that contribute to construction program eligibility. City staff's proposed scope for grant funding includes planning and feasibility-related work for the Recycled Water Program.

CITY OF BOISE

The city of Boise City, Ada County, Idaho will commit to the financial and legal obligations associated with receipt of financial assistance under Funding Opportunity Announcement No. R23AS00076 WaterSMART: Title XVI Water Reclamation and Reuse Projects, and authorize Public Works Director to sign and submit the USBR Title XVI WaterSMART: Water Recycling and Desalination Planning Grant Funding Application.

FINANCIAL IMPACT:

No impact to general fund.

ATTACHMENTS:

- WaterSmart Grant Committee App_RWP_signed (PDF)

CITY OF BOISE

Resolution NO. RES-88-23

BY THE COUNCIL

BAGEANT, CLEGG, HALLYBURTON,
WILLITS AND WOODINGS

A RESOLUTION APPROVING THE GRANT APPLICATION FOR A MAXIMUM AWARD AMOUNT OF \$1,000,000 FROM THE U.S. BUREAU OF RECLAMATION TITLE XVI WATERSMART: WATER RECYCLING AND DESALINATION PLANNING GRANT OPPORTUNITY; COMMITTING THE CITY TO FINANCIAL AND LEGAL OBLIGATIONS ASSOCIATED WITH ANY RECEIPT OF FUNDING; AUTHORIZING THE PUBLIC WORKS DIRECTOR TO APPLY ON BEHALF OF THE CITY OF BOISE CITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Recycled Water Program, within the Public Works Department, has reviewed and recommended approval of the application for the U.S. Bureau of Reclamation Title XVI WaterSMART grant opportunity; and

WHEREAS, this funding may be awarded by the U.S. Bureau of Reclamation for the development of new water recycling and desalination feasibility studies; planning and preliminary design activities for water recycling or desalination construction projects; or environmental compliance activities for water recycling or desalination construction projects; and

WHEREAS, the city of Boise City will commit to the financial and legal obligations associated with any receipt of financial assistance under Funding Opportunity Announcement No. R23AS00076 WaterSMART: Title XVI Water Reclamation and Reuse Projects, and authorize Public Works Director to sign and submit the USBR Title XVI WaterSMART: Water Recycling and Desalination Planning Grant Funding Application.

BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF BOISE CITY, IDAHO:

Section 1. That the grant application up to an amount of \$1,000,000 from the U.S. Bureau of Reclamation Title XVI WaterSMART grant opportunity, attached as Exhibit A, is authorized and approved as to both form and content.

Section 2. That Public Works Director is hereby authorized to execute and attest said Application for and on behalf of the city of Boise City.

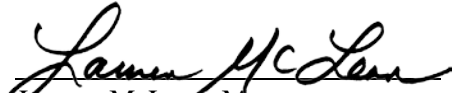
Section 3. That this Resolution shall be in full force and effect immediately upon its adoption and approval.

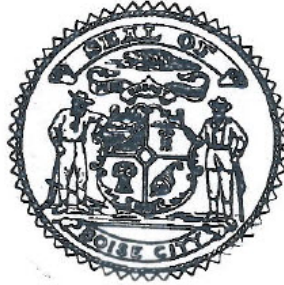
CITY OF BOISE

ADOPTED by the Council of Boise City, Idaho, on February 14, 2023.

APPROVED by the Mayor of the Boise City, Idaho, on February 14, 2023.

APPROVED:


Lauren McLean, Mayor



ATTEST:


Lynda Lowry, Ex-Officio City Clerk

SECTION 5

Letters of Support for the Project and Letters of Participation

(Recommended, will not count toward the page limit)

Include letters from interested stakeholders that support the proposed project, if applicable



IDAHO
CONSERVATION
LEAGUE

710 N 6th St. Boise ID, 83701 | (208) 345-6933

February 23, 2023

United States Department of the Interior
Bureau of Reclamation, Water Resources and Planning

(Submitted Electronically with Boise's application)

SUBJECT: Letter of Support; City of Boise Funding Application – Funding Opportunity
#R23AS00076- WaterSMART: Water Recycling and Desalination Planning

I am writing on behalf of the Idaho Conservation League (ICL) to share support for the City of Boise's funding application to the Bureau of Reclamation's WaterSMART program submitted by the City of Boise Recycled Water Program. Founded in 1973, ICL is Idaho's oldest and largest non-profit natural resources conservation organization. We represent approximately 25,000 members and supporters from all across Idaho, the majority of whom live in and around Boise.

ICL deeply appreciates the City of Boise's commitment to responsible use of natural resources, and we recognize this funding application will support the city's long-term vision and goals of increasing water resiliency and protecting the Boise River. More specifically, we understand that the funding proposes to develop a feasibility study to enable future capital funding, evaluate sites for recycled water facilities, and groundwater recharge and associated activities.

Boise is an innovative municipal leader within Idaho on issues of climate action and conservation of resources, and ICL is particularly appreciative of the City's leadership in these realms. ICL trusts that should Boise receive this funding, it will be put to efficient and meaningful use.

Thank you for considering ICL's support of this application. Should you have any questions or need additional information, please contact me at mkellner@idahoconservation.org or 208-369-4885.

Sincerely,

A handwritten signature in black ink that reads 'Marie Callaway Kellner'. The signature is written in a cursive, flowing style.

Idaho Conservation League
Conservation Programs Director



PUBLIC WORKS DEPARTMENT

MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

February 22, 2023

United States Department of the Interior
Bureau of Reclamation, Water Resources and Planning

(Submitted Electronically)

SUBJECT: Letter of Support; City of Boise Funding Application – Funding Opportunity
#R23AS00076- WaterSMART: Water Recycling and Desalination Planning

I am writing to share support from the City of Boise, Department of Public Works, Climate Action Division for the funding application to the Bureau of Land Management WaterSMART program submitted by our Recycled Water Program. The funding application will support the city's long-term vision and goals of increasing water resiliency and protecting the Boise River. More specifically, the funding proposes to develop a feasibility study to enable future capital funding, evaluate sites for recycled water facilities and groundwater recharge and associated activities.

The role of the City's climate action team is to align work from various city programs with the goals and opportunities identified in Boise's community Climate Action Roadmap (plan). Boise's work to develop a recycled water program aligns with our climate action initiatives to create a more resilient water supply as our community prepares to face future challenges with water resources. Specifically, a climate adaptation assessment prepared by the City in 2016 identifies six water related issues as some of the most significant impacts that we face from climate change. The development of a recycled water program attempts to directly mitigate these impacts through the diversification of our water supply. Our community and municipal leadership provides broad support for climate action and water initiatives. Our recycled water team is well prepared and positioned to deliver on this project should funding be received.

Should you have any questions or need additional information, please contact me at (208) 608-7521.

Sincerely,

Steven Hubble
Climate Action Manager



February 23, 2023

United States Department of the Interior
Bureau of Reclamation, Water Sources and Planning

[Submitted Electronically]

SUBJECT: Letter of Support: City of Boise Funding Application – Funding Opportunity
#R23AS00076–WaterSMART: Water Recycling and Desalination Planning

I am writing to share support from National Water Research Institute (NWRI) for the funding application to the Bureau of Land Management WaterSMART program submitted by the City of Boise Recycled Water Program. The funding application will support the city’s long-term vision and goals of increasing water resiliency and protecting the Boise River. More specifically, the funding proposes to develop a feasibility study to enable future capital funding, evaluate sites for recycled water facilities, and groundwater recharge and associated activities.

The City of Boise engaged NWRI to administer an Independent Advisory Panel to review the proposed Recycled Water Program and provide expert consensus opinions on scientific, technical, and policy issues that arise as the Program is developed and implemented. The Panel met in 2021 and was impressed with the city’s commitment to mapping out its water future to meet the needs of a growing population, regulatory challenges, and the duty to manage its water supply as a public resource.

The city presented the Panel with information about its goals for the Recycled Water Program, including increasing resiliency and reliability of the water supply, maximizing environmental benefits and economic development, and creating solutions for future generations. The Panel supports these goals and will continue to advise the city through an independent, third-party expert peer review process as the program develops.

Should you have any questions or need additional information, please contact me at

khardy@nwri-usa.org

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin M. Hardy". The signature is fluid and cursive, with a prominent loop at the end.

Kevin M. Hardy
Executive Director

Kevin M. Hardy • Executive Director • khardy@nwri-usa.org • www.nwri-usa.org

JPA MEMBERS: Inland Empire Utilities Agency • Irvine Ranch Water District • Los Angeles Department of Water and Power
Metropolitan Water District of Southern California • Orange County Sanitation District • Orange County Water District



ADA COUNTY DEVELOPMENT SERVICES

200 W. FRONT STREET, BOISE, IDAHO 83702-7300
<https://adacounty.id.gov/developmentservices>

PHONE (208) 287-7900
FAX (208) 287-7909

BUILDING • COMMUNITY PLANNING • ENGINEERING & SURVEYING • PERMITTING

February 27, 2023

(Submitted Electronically)

United States Department of the Interior
Bureau of Reclamation, Water Resources and Planning

RE: Letter of Support; City of Boise Funding Application – Funding Opportunity
#R23AS00076- WaterSMART: Water Recycling and Desalination Planning

I am writing to share support from the Ada County Department of Development Services for the funding application to the Bureau of Land Management WaterSMART program submitted by the City of Boise Recycled Water Program. The funding application will support the city's long-term vision and goals of increasing water resiliency and protecting the Boise River, which benefits all jurisdictions in the Treasure Valley. More specifically, Ada County is supportive of the City of Boise's request for the following reasons:

- The City of Boise was part of the Water Summit Meetings organized by Ada County last year and aquifer recharge was identified as one of the goals from all the stakeholders.
- Ada County believes this effort could be part of the solution to address the declining groundwater levels in the shallow (100 ft deep) wells in the South West Boise Area.
- The proposed feasibility study which would enable future capital funding and evaluate sites for recycled water facilities, groundwater recharge, and associated activities could be used by other entities in the area that have engaged with these issues but are unclear as to the details or ways to move forward.

In addition, Ada County Development Services trusts these efforts will utilize the best available data from any other reports or information that is available at the time this study is conducted. We also look forward to coordinating early with the City of Boise on any potential recharge sites that are owned by or under the control of Ada County.

Should you have any questions or need additional information, please contact me at 208-287-7915 or rbeck@adacounty.id.gov.

Sincerely,

A handwritten signature in blue ink that reads "Richard Beck".

Richard Beck
Director

SECTION 6

Overlap or Duplication of Effort Statement

(Recommended)

Provide a statement that addresses if there is any overlap between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel. If any overlap exists, applicants must provide a description of the overlap in their application for review.

Overlap or duplication of efforts statement

The City is applying for this grant to assist in project costs associated with its Recycled Water Program, approved in 2020 as part of the City's Water Renewal Utility Plan. The Recycled Water Program is focused on producing recycled water for both industrial reuse and aquifer recharge for industrial flows originating from the southwest Boise area, aiming to preserve local water supply and creating resiliency against the impacts of climate change. The Recycled Water Master Plan proposes production of recycled water at a third water renewal facility ("Third WRF") for industrial reuse.

The City has applied for and been awarded a WIFIA loan, in part, to support the Recycled Water Program. The WIFIA loan, however, will not entirely cover the costs of the Recycled Water Program. If granted, the WaterSMART funds would go towards the planning and study activities necessary for the Third WRF and aquifer recharge, and no WIFIA funds will be utilized on the same project activities. The WaterSMART grant funds would be part of the 51% match to the WIFIA loan.

The City is also engaged with Micron Technology, Inc. (Micron) on the planning of a recycled water facility to support the development of a Micron memory manufacturing fabrication in Boise. Any water renewal facility built, owned and operated by the City to support the expansion of the Micron's Boise campus is intended to be a part of the Recycled Water Program. However, the City's role is currently undefined with respect to construction, ownership, and operation of that recycled water facility. Further, Micron will finance the activities the City's Public Works Department engages in to assist the Micron build-out.

There are two key personnel that overlap with respect to the Recycled Water Program activities financed by City funds, the WIFIA loan, Micron, and potentially the WaterSMART grant. The first is the Recycled Water Program Manager, Royce Davis, and the second is the Public Works Senior Project Manager, DeAnn Brown. Other supporting personnel with some overlap include legal assistance, communications/public relations, pretreatment staff, and the water quality manager.

Staff has spent considerable time delineating the Recycled Water Program activities into defined scopes of eligible activities matched to fund sources. To ensure accurate tracking for eligible work completed by fund source, the City's Department of Finance and Administration (DFA) has created different time and accounting codes for City funds, WIFIA-reimbursable activities, and Micron project work. Staff enter their time on eligible project activities under the appropriate code. The staff time, invoices and other expenses paid come from the account associated with the code. The WaterSMART grant would be similarly scoped and coded.

SECTION 7

Uniform Audit Reporting Statement

(Recommended)

Submission of the uniform audit reporting statement within the application is recommended but not required. Notwithstanding this, all U.S. States, local governments, federally recognized Indian Tribal Governments, and non-profit organizations expending \$750,000 in U.S. dollars or more in Federal award funds in your organization's fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System in accordance with 2 CFR Part 200 Subpart F. U.S. State, local government, federally recognized Indian Tribal Governments, and non-profit applicants must state if your organization was or was not required to submit a Single Audit report for the most recently closed fiscal year.

Uniform Audit Reporting Statement

The city of Boise City undergoes annual audits. The City's Department of Finance and Administration is in the process of completing the FY22 audit and will report to the Federal Audit Clearinghouse's Internet Data Entry System in late March 2023, after the audit is finalized. The City's EIN is 826000165, and the FY21 audit is currently available through the Federal Audit Clearinghouse website.

SECTION 8

Conflict of Interest Disclosure Statement

(Recommended)

Per 2 CFR §1402.112, "Financial Assistance Interior Regulation" applicants must state in the application if any actual or potential conflict of interest exists at the time of submission. Submission of a conflict-of-interest disclosure or certification statement is mandatory prior to issue of an award.

Conflict of Interest Disclosure Statement

At this time, the City knows of no actual or potential conflicts of interest as defined and governed by 2 CFR §1402.112. The City takes appropriate steps to avoid conflicts of interest, as demonstrated in Boise City Code, Title 1, Chapter 8 Code of Ethics, which includes standards of conduct and disclosure of conflicts of interest. Grant funds will not be used for any lobbying activities. Should any actual or potential conflict of interest become known to the City during the life of the award, the City will provide prompt notice in accordance with §1402.112(b).