

Nampa's 2C WaterWise Program:

Turf Replacement and Efficient Systems Irrigation Rebates

Applicant: City of Nampa, ID

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Nampa's











CONTENTS

ı		cutive Summary				
2	Proj	ect Location	4			
3	Tec	hnical Description	5			
	3.1	Turf Replacement Rebate	6			
	3.2	ESI Rebate	6			
4	Eva	luation Criteria	10			
	4.1	Evaluation Criterion A – Quantifiable Water Savings	10			
	4.2	Evaluation Criterion B – Renewable Energy	13			
	4.3	Evaluation Criterion C – Sustainability Benefits	14			
		Evaluation Criterion D – Complementing on –Farm Irrigation				
		provements	17			
	4.5	Evaluation Criterion E – Planning and Implementation	18			
	4.6	Evaluation Criterion F – Collaboration	20			
	4.7	Evaluation Criterion G – Additional Non-Federal Funding	21			
	4.8	Evaluation Criterion H - Nexus to Reclamation	21			
5	Perf	ormance Measures	22			
6	Proj	ect Budget	23			
	6.1	Budget Proposal and Funding Plan	23			
7	Bud	get Narrative	25			
8	Envi	ironmental and Cultural Resources Compliance				
9	Req	uired Permits or Approvals				
10		erlap or Duplication of Effort Statement				
11		flict of Interest Disclosure Statement				
	! Uniform Audit Reporting Statement					
	Letters of Support Official Resolution					
	PFNP					
	I IV					









1 EXECUTIVE SUMMARY

July 28th, 2022

Applicant Name, City, County, And State: CITY OF NAMPA, NAMPA, CANYON COUNTY, IDAHO

Applicant Category: CATEGORY A

Project Summary:

The City of Nampa, located in the Treasure Valley Region of Canyon County, Idaho, is developing two new rebates as part of an initiative called Nampa's 2C WaterWise Program. The rebate program will include a Turf Replacement Rebate, to offset the cost of converting lawns to drought-tolerant landscaping, and an Efficient Systems Irrigation (ESI) Rebate to



af College of Western Idaho in Nampa

assist residents with the installation of water-efficient irrigation improvements to existing systems. Both rebates will be available to all residents within Nampa city limits who are responsible for the maintenance of their lawn. The program is projected to begin at the start of the City's 2024 fiscal year on October 1, 2023, with a two-year period of performance through the end of the 2025 fiscal year, ending September 30, 2025. The rebate program is projected to yield a total water savings of 20.9 acre-feet per year, enabling the system to better meet the needs of farmers and residents in Treasure Valley who have been impacted by an extended drought event. The City of Nampa will partner with local landscape and horticulture experts, as well as the City's Drought Task Force, comprised of various resource stakeholders, knowledgeable professionals, and local/regional community members.

This project is not located on a Federal facility.





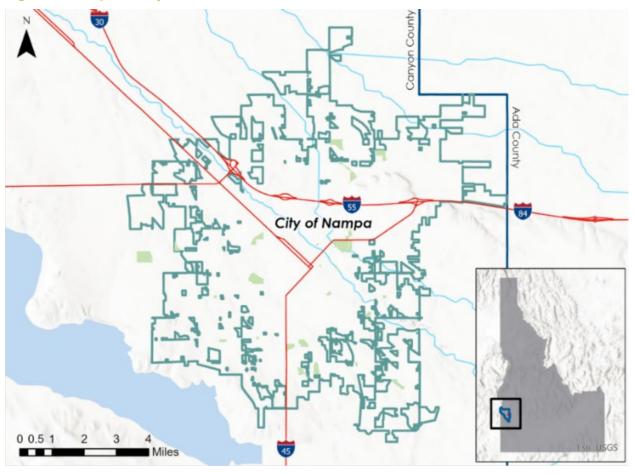


2 PROJECT LOCATION

Any homeowner responsible for the maintenance of their lawn within the City of Nampa is eligible for the proposed rebate programs, therefore **the project location is the entirety of Nampa's city limits.**

The City of Nampa is located in the Treasure Valley Region of Idaho in Canyon County, approximately 20 miles (32 km) west of the City of Boise along Interstate 84 (I-84), 6 miles (10 km) west of the City of Meridian, and 10 miles east of the City of Caldwell. Nampa City limits, shown in **Figure 1**, encompass a total of 22,000 acres. The project latitude is 43.5788° N and longitude is 116.5598° W.

Figure 1: Map of Project Location and Boundaries









3 TECHNICAL DESCRIPTION

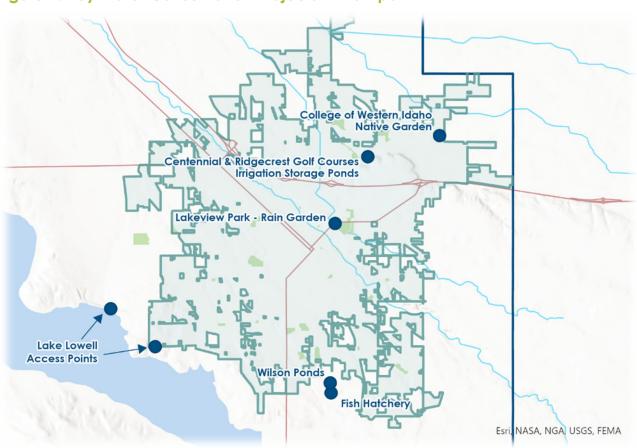


Example of Residential Drought-tolerant Landscaping in Nampa

The City of Nampa and its community members have implemented several projects designed to model sustainable landscaping and water conservation. Examples of such projects and their implementation sites are shown in **Figure 2**. As part of a formal program, the City is developing Nampa's 2C WaterWise Program to integrate these many initiatives and target a range of water conservation

strategies. This application seeks funding for a "Turf Replacement Rebate" and an "Efficient Systems Irrigation (ESI) Rebate", to be implemented as subprograms of Nampa's 2C WaterWise Program.

Figure 2: Key Water Conservation Projects in Nampa











3.1 Turf Replacement Rebate

The Turf Replacement Rebate will help offset the applicants cost of converting lawn to drought-tolerant landscaping. Requirements of the Turf Replacement Rebate include:

- Replacing a minimum of 500 SF of turf
- A maximum rebate amount of \$2,500 for the Turf Replacement program
- Hardscapes must be Permeable
- Removal of existing drought-tolerant landscaping is ineligible



Example of Residential Droughttolerant Landscaping in Nampa

- Preliminary application, before work performed, to include landscape plan review
- Final application, after work performed, to include inspection

Applicants may either perform turf replacement work themselves or hire a contractor, however applicants labor costs are not eligible expenses for rebate. Rebates for turf removal are only eligible for replacement with drought-tolerant landscaping and/or hardscaping.

3.2 ESI Rebate

The Efficient Systems Irrigation (ESI) Rebate (pronounced the "Easy" Rebate) will help offset the cost of installing efficient equipment to their irrigation systems. Requirements of the ESI Rebate include:

- A maximum rebate amount of \$2,500
- Installation of an EPA WaterSense-approved controller
- Drip irrigation systems are the only complete system installation eligible for rebate; new installation of any type of spray irrigation is ineligible for the rebate.

Applicants may either install improvements themselves or hire a contractor. Rebates may be approved for upgrades to existing spray irrigation, only if replaced with high-efficiency rotary nozzles. If the applicant has a qualifying controller installed, proof of installation and communication information must be provided to program administrators.



WaterWise Brochure (see Appendix for full brochure)









Both rebates will be available to all residents within Nampa city limits who are responsible for the maintenance of their lawn. Nampa's 2C Water-Wise Program is a first-of-its-kind water conservation program in Nampa and will be one of the first programs in the state to provide such rebates.

As detailed in the budget ahead, a part-time Program Administrator position will be established for the duration of the rebate programs to oversee and manage the programs through application review, processing, coordination, approvals, inspection, payments, marketing, and any additional tasks. The City anticipates soliciting local colleges and universities to fill the position as a paid internship available for interested students in the area to apply.

Additionally, successful deployment of the rebate programs will require robust and active engagement with the Nampa community. Several outreach components will be deployed to advertise the rebate programs and provide assistance to participants. These program marketing components include:

- A dedicated website for Nampa's 2C Water-Wise Program & Rebate subprograms
- Multiple User Guides, such as a "How-to Convert Your Lawn" and "WaterWise Plantings for your High-Desert Home"
- Water Conservation workshops

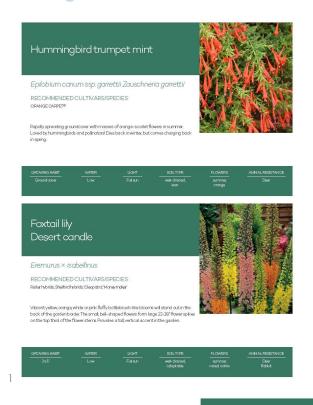


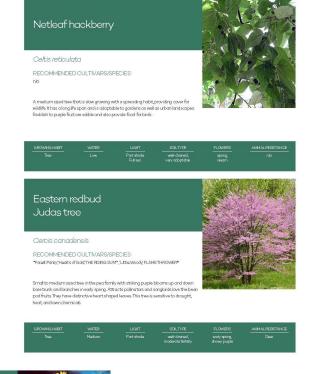
Example of Drought-tolerant Grass Landscaping at Nampa's Lakeview Park Rain Garden

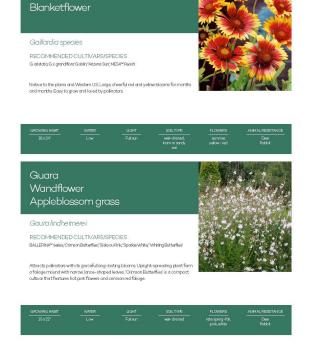










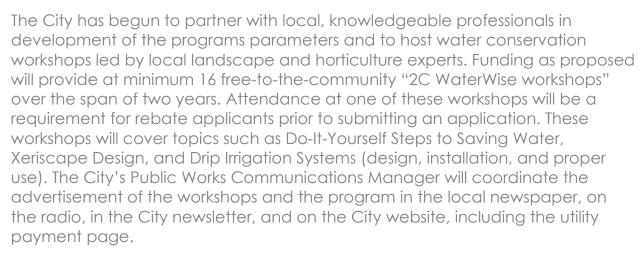


Examples of Native Plants Guide from Idaho Botanical Garden

¹ https://www.idahobotanicalgarden.org/wp-content/uploads/2022/04/IBG-100-plants_merged.pdf







The City of Nampa is requesting funding to support the expansion of Nampa's 2C WaterWise program's efforts and educational resources and for implementation of the described rebate programs over a two-year performance period. A rigorous internal review of preliminary project applications by the Program Administrator, and additional City Staff as needed, will ensure that each turf replacement or irrigation system efficiency project achieves optimal water savings. A final application review and site inspection will ensure that improvements were implemented as approved.



Previous Water Conservation and Landscape Workshop hosted by the City in Collaboration with Local Lawn Care Expert Jos Zamzow









4 EVALUATION CRITERIA

4.1 Evaluation Criterion A – Quantifiable Water Savings

The City expects 100 households to participate in the turf replacement program over its two-year lifetime. The anticipated reduction in Landscape Water Requirement (LWR) is expected to be as much as 90% per 500 SF of turf removed, equating to 2.7 acre-feet of savings per year. This is based on a minimum requirement of 500 SF of turf replacement per household to be eligible for the rebate. Additionally, the following assumptions were made regarding water usage:

- ET rate of 10.15 inches per month (EPA Water Sense v.1.04 tool²)
- 40% of newly-removed turf will be replaced by drought-tolerant plantings (industry experience)
- Turf water usage factor of 0.8 (EPA Water Budgeting tool³)
- Drought-tolerant landscaping factor of 0.2 (EPA Water Budgeting tool)
- Conversion constant of 0.62 (EPA Water Budgeting tool)

Water savings were determined using the following calculations from the EPA Water Budgeting Tool:

- 1. **Baseline water usage** = 10.15 (ET @ peak month) x 500 SF x 0.8 x 0.62 = 2.517 gallons of water per month (g/m) used.
- 2. Water Wise planting area = $10.15 \times 200 \text{ SF } (40\% \text{ of } 500) \times 0.2 \times 0.62 = 252 \text{ g/m used.}$
- 3. 2,517 252 = 2,265 g/m saved x 100 households = 8,880 gallons or 2.7 acrefeet per year.

90% per 500 SF of turf removed

Anticipated **reduction** in Landscape Water Requirement

² https://www.epa.gov/watersense

^{3 &}lt;a href="https://www.epa.gov/watersense/water-budget-tool">https://www.epa.gov/watersense/water-budget-tool









Similarly, the City expects 100 households to participate in the ESI rebate program over its two-year lifetime. The anticipated reduction in irrigation water through the use of water efficient controls and delivery systems is expected to be as much as 50%, or 18.2 acre-feet per year. This is based on known water savings from the replacement of spray irrigation with drip irrigation and the use of smart water controllers for an average landscape of 6,000 SF of Turf over a year.

Water savings were determined using the following calculations from the EPA Water Budget Tool:

- 1. **Pre installation (Baseline)** = $10.15 \times 6,000 \text{ SF} \times 0.8 \times 0.62 = 30,206 \text{ gal/month used.}$
- 2. **Baseline annual water use** = $50,344 \times 7$ months (Apr. Oct.) $\times 0.56$ (Avg % of peak water month) = 118,408 gal/per year.
- 3. 197,348 gallons x 0.50 x 100 applicants = 5,920,400 gallons or 18.2 acre-feet per year.

For both rebates, applicants will complete a worksheet where the provide calculations on water usage and reduction. This calculation worksheet may look like the illustration in **Figure 3 on the following page**.







Figure 3: Water Savings Worksheet

1.	Pre-installation (Baseline) = TOTAL
	sq. ft. x 0.8 (Turf) x 0.62 = gal/month used #1: Baseline
2.	Baseline Annual Water Use =
	x 7 months (Apr. – Oct.) x 0.56 (Avg % of peak water month) #1: Baseline TOTAL = gal/year #2: Baseline Annual Water Use
3.	No Irrigation Area (50-60% project area) =
	10.15 x sq. ft. x (plant factor) x 0.62
	TOTAL = gal/month used #3: No Irrigation Area
4.	Water-Wise Planting Area (40-50% project area) =
	10.15 x sq. ft. x (plant factor) x 0.62 TOTAL gal/month used #4: Water-wise Planting Area
5.	Annual Water Use =
٠.	TOTAL
	x 7 months (Apr. – Oct.) x 0.56 (Avg % of peak water month)
#:	3: No Irrigation Area = gal/year used #5: Annual Water Use
	Annual Water Use Savings = TOTAL #2: Baseline anual Water Use #5: Annual Water Use #6: Annual Water Use Savings









Upon submittal of the rebate application, a visual audit of each applicant's property will be completed by City Staff. Verification of the completed project will confirm that all program requirements have been met. The water conservation per site can be calculated using the pre-project turf irrigation rate and the measured area of turf removed minus estimated water use of any replacement landscape vegetation.

The City will also have the ability to monitor irrigation watering data from the ESI program projects through the installed smart controllers. Results will be documented in a booklet describing the program, along with photos illustrating the aesthetics of the areas transformed and metrics on water savings.

Total project savings will be calculated by summing the individual site savings.

The rebates will help reduce water lost to unnecessary irrigation. Currently, water is consumed by water-intensive landscaping making the water unavailable for other uses. Native plants that are adapted to the region are better suited to the climate and dry conditions. Little to no irrigation water is required water is required for these plants. Since the installation of native plants requires well-drained soil, it is possible that the water used from irrigation goes into a water trapping system that will support the organic growth of native shrubs and trees.

4.2 Evaluation Criterion B – Renewable Energy

In addition to water savings, the rebate programs will improve energy efficiency. A reduction in the use of irrigation water will lead to a reduction in the amount of power needed to move water through the system. The rebate programs are expected to save a total 5,929,280 gallons of water per year. This will produce a corresponding decrease in energy required to pump water through a system that currently uses over 25,000,000 kWh of electricity each year based on calculations using the Natural Resources Conservation Service (NRCS) Energy Estimator Tool.

Regarding eligible ESI rebate improvements such as drip systems, compared to their high-pressure, high-energy counterparts, drip irrigation can cut down energy costs as much as 50% and increase water efficiency up to 40-70%, according to the Natural Resources Conservation Service (NRSC) Irrigation Guide. The turf replacement rebate will lead a reduction in energy, resources, and emissions due to the reduction in lawn mowing given the reduction of lawn post improvements. The City estimates that the average area of turf removed per household under this rebate will be 600 SF. Provided a typical household lawn is mowed 30 times each year using one gallon of fuel per acre mowed. By reducing the area to be mowed by 600 SF each time, multiplied by 100 households, approximately half a gallon of fuel will be saved per year.

⁴ https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_033068.pdf









Furthermore, a reduction in lawn mowing will reduce carbon emissions. Approximately 17.7 pounds of carbon per gallon is produced by gas mowers, and approximately 1 pound of carbon per kilowatt-hour is produced by electric mowers. Additionally, this program is intended to showcase the benefits of water conservation, potentially leading to a cultural change surrounding irrigation across the region. According to research from Arizona State University cultural changes to irrigation can lead to reduction of heat island affects and increase nighttime cooling.

4.3 Evaluation Criterion C – Sustainability Benefits

Nampa is a fast-growing city which has led to a significant increase in the construction of single-family homes with ample lawns. The region has been experiencing an extended drought for several years, leading to limited water storage in the Boise River System and significantly reducing the irrigation supply available for distribution. Recent local studies project the region to experience a substantial increase in the number of days with a heat index over 100°F, as well as an increase in the number of freeze-free days by the mid-21st Century. This will lead to longer irrigation seasons with increased irrigation demands as well as more limited water supply, placing an increased strain on the system. The irrigation water system capacity as of 2021 is 78,690 gallons per minute (gpm) while current demand is 74,920 gpm, leaving a minimal surplus of only 3,770 gpm. Over the next 20 years system capacity is only expected to increase to 80,190 gpm, whereas demand is expected to increase to 113,097 gpm, a capacity deficit of 32,907 gpm.

Any reduction in available water will lead to increased water rates that will directly impact the entire city. According to the US Census⁷ approximately 69% of the population in the City of Nampa is Caucasian, 25% Hispanic, with the remaining being of another race. Additionally, 40.4% of that population is under 18 or older than 65. The annual household income is \$53,205 and approximately 14% of the city's population is considered "persons in poverty".

Canyon County is considered rural, with multiple areas of persistent poverty and historically disadvantaged communities. Within the City of Nampa there are six census tracts [201, 202, 203, 204.02, 205.04, 206.02] that are indicated to be a Historically Disadvantaged Community as well as noted as having Health Disadvantage Indicator, Economy Disadvantage Indicator, Equity Disadvantage Indicator, Environmental Disadvantage Indicator, & Resilience

⁵ https://sciencing.com/calculate-carbon-footprint-lawn-mower-24046.html

⁶

https://www.researchgate.net/publication/232917582 Using Watered Landscapes to Manipulate Urban Heat Island E ffects How Much Water Will It Take to Cool Phoenix

⁷ https://www.census.gov/quickfacts/nampacityidaho









Disadvantage Indicator.⁸ Additionally, four of those census tracks [201, 202, 203, 205.04] are considered areas of persistent poverty.

The loss of water resources would be detrimental to the agricultural sector, a major industry in the regional economy. Turf replacement and ESI rebates will improve the resiliency of the city's irrigation resources, ensuring there is adequate supply for communities to maintain their landscapes. It will also ensure that urban gardeners as well as the agricultural community can produce food and maintain livestock for themselves and the abundant agricultural economy that exists throughout the community.

By encouraging the replacement of water-intensive turf with drought-tolerant landscaping, Nampa's 2C Water-Wise Program will improve ecological resiliency to climate change by proliferating native plants that can withstand heat increases, broad fluctuations in hourly temperatures, and longer periods without rainfall. Additionally, it will ensure that new irrigation systems do not use any more water than necessary to keep plants alive. The programs will reduce the consumption of water for irrigation and protect an already-scarce water supply. This water-use reduction, by as much as 5,929,280 gallons, or 20.9 acre-feet, of water per month will increase the amount of water being held upstream in the distribution system. Reduction of demand will directly impact the ability of water management to convey water by adding capacity to the existing system, thereby improving consistency and reliability of flows, and reducing demand for additional system infrastructure.

Endangered species within the project area include Slickspot peppergrass [plant - Lepidium papilliferum], Ute ladies' -tresses [plant- Spiranthes diluvialis], the Yellow Billed Cuckoo [bird - Coccyzus americanus occidentalis], and the Monarch butterfly [insect - Danaus plexippus]. Additionally, the Western Bumble Bee [insect - Bombus occidentalis] is listed as "petitioned" for review as of 2021. This project is not anticipated to have any negative affect on the listed species. However, further evaluation will be completed during the environmental assessment and program guidelines will be developed to prohibit the removal of listed plants as well as plants critical to the habitat of listed insects and birds.

Finally, the rebates are designed to act as a catalyst for similar programs across the city that will substantially increase water savings across the region. The rebates will be used as a tool to encourage further conservation efforts by the community. These rebates will tie in with other components of the 2C Water-Wise program, such as the Irrigation Surface Storage Water project that aims to improve variable storage capacity and automatically adjusts to meet demand, reducing the numbing of pumping systems needed. The connections between these components are shown in **Figure 4 on the following page**.

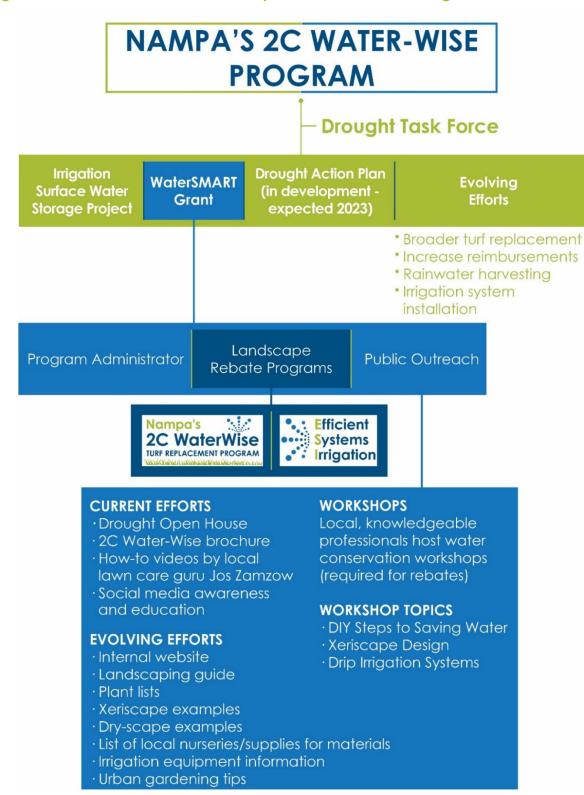
⁸ https://usdot.maps.arcgis.com/apps/dashboards/d6f90dfcc8b44525b04c7ce748a3674a







Figure 4: Connection Between Nampa's 2C Water-Wise Programs











4.4 Evaluation Criterion D – Complementing on –Farm Irrigation Improvements

Though it is unlikely an agricultural farm could be eligible for the rebate programs, as most exist as county parcels outside of city limits, it is expected that they will experience on-farm benefits. Agricultural water supply is a critical natural resource issue for Nampa and all Treasure Valley water resource managers. The community uses a shared system, with surface water irrigation supplied to the City of Nampa from four storage reservoirs in the Boise River Basin in southwest Idaho. These reservoirs are a part of the Bureau of Reclamation's Boise Project and include Anderson Ranch, Arrowrock, Lucky Peak, and Lake Lowell.

Increased efficiency and conservation of water use residentially allows for more resources to be directed to the surrounding agricultural community. Decreased residential water demands also minimize the draw of water from the reservoir system, providing water savings that are likely to improve the reliability of water throughout the standard irrigation season as well as minimizing the risk of irrigation resource availability being delayed, reduced, or shut off early as has happened in recent years.

In addition to the indirect benefits & water savings associated with the rebate programs, the 2C WaterWise Program intends to develop a resource guide for farmers to help identify financial assistance and grant opportunities they can pursue as well as bring awareness to new studies and innovative equipment available to improve water efficiency on agricultural lands.

According to DAGA, a leader in innovative solutions and technology used to efficiently provide irrigation water, with over 60 years of experience, "Irrigation contributes to social cohesion and stability; it is responsible for boosting a territory and is, therefore, one of the basic pillars of rural and regional development... It is also an essential element for the economy of the regions, for the quality of life or the valorization of products. It has an impact on income and is the main contributor to maintaining social stability. Besides being a great benefit for rural development, it also generates important ecosystem services favorable for both nature and people". They further note that, "Irrigation plays a key role in addressing food security challenges... The effects of climate change on irrigation will grow exponentially since the decrease in rainfall will cause a reduction in the availability of water resources. Water consumption in agriculture is one of the main issues of concern worldwide. The continuous increase in population, the improvement in the quality of life and changes in food consumption, among other factors, is generating a growing general awareness of water consumption and its optimization".9

⁹ https://dagaequipment.com/en/b/blog/p/irrigation-and-its-benefits-for-todays-society-40







4.5 Evaluation Criterion E – Planning and Implementation

In addition to the established Nampa Drought Task Force and 2C WaterWise program outreach, the City of Nampa has drafted a drought response plan based on guidelines set by EPA and their drought plan template, with the aim of conserving the available water supply and providing the maximum amount of irrigation to residents while under drought conditions. One component of the plan is the recommendation of city-wide conservation projects designed to improve drought resiliency, with priority given to projects based on their mitigation measures. Projects that will be completed over the next five years are critical towards drought resiliency and given top priority status. Since this project is expected to be completed in 2026, Nampa's 2C Water-Wise Program falls within this top priority category. Controlling watering schedules with water-sense controllers, educating residents on water conservation, and saving water with turf replacements are features that align this project with the objectives of the City's drought response plan.



Example of Drought-tolerant Landscaping in Nampa









The anticipated project schedule is provided below in **Table 1**. Based on the anticipated award date of October 31, 2024 expressed in the notice of funding opportunity, and to align with appropriate planting seasons in the region, implementation of the pilot rebate programs is anticipated to begin during the City's 2025 fiscal year, with the program active from March 1, 2025 and having a period of performance through the end of the 2026 fiscal year, September 30, 2026.

Table 1: Project Timeline

Anticipated Award	*							
Creation of Website/User Guide								
Hire Project Administrator								
Develop Marketing Materials								
Launch Marketing Materials								
Water Conservation Workshops								
Rebate Application Opens			¥					
Issue Rebates								

Although the rebate programs will not begin accepting applications until March 2025, several tasks are already under development and will be implemented ahead of that time. On-going efforts include the creation of a user guide to native plant species, information on converting a lawn to drought-tolerant landscaping, and marketing material that will advertise and promote the rebates to residents. Development of the program website and user guide will be expanded immediately following obligation of funds, if awarded. Marketing efforts will also be expanded the summer of 2025 once funds are obligated. And solicitation for the project administration position will be performed beginning at the start of the FY25 fiscal year, October 1, 2024, to secure a hire to begin shortly ahead of the rebate program application period opens.

There are no permits required by the applicant to implement this project.

Residents participating in the rebate program may need to obtain right-of-way permits, which would be acknowledged within program advertisements and









reviewed during the preliminary application period to ensure compliance. No external approvals will be required from the City to implement the program; however, City Council authorization will need to be obtained to accept the funding award as well as to create the program administrator position and approve the programs budget at the start of each fiscal year. City Council has already been informed and provided initial approval of the rebate programs as required for submission of this funding application.

4.6 Evaluation Criterion F – Collaboration

In 2021, the City of Nampa formed a Drought Task Force to develop and identify ways to optimize and maximize the available irrigation water, while also implementing a community educational outreach program covering these initiatives and strategies. The Drought Task Force is comprised of a variety of entities including Nampa's three irrigation districts (Pioneer, Nampa-Meridian and Boise-Kuna Irrigation Districts), Idaho Rural Water Association, local professionals, landscapers, and horticulture experts – including the Zamzows, Nampa and Vallivue School Districts, local residents, City of Nampa staff, and other interested individuals. The Drought Task Force has been implementing a series of workshops as part of their educational outreach to prepare residents for the anticipated drought season. These workshops have been extremely successful, reaching over 300 attendees throughout the City of Nampa and the Treasure Valley.

The 2C Water-Wise Program has received support from the City's 2022 Drought Trask Force as well as the local irrigation districts, stakeholders, local residents, and local landscape and horticulture experts. With the support of these collaborators, the City of Nampa plans to expand these workshops covering topics such as Do-It-Yourself Steps to Saving Water, Xeriscape Design, and Drip Irrigation Systems (design, installation, and proper use). The workshops will be led by local landscape and horticulture experts, and attending the workshops is a requirement for rebate applicants. The success of the current workshop program has inspired the surrounding cities throughout Treasure Valley to implement their own water-savings workshops.

The local landscape and horticulture experts, along with the City's Park Department, will be working closely with the City to:

- Identify a list of appropriate native plants to replace turf for the duration of this program.
- Supply these plants in their local shops and identify additional places these plants can be purchased.
- Supply EPA WaterSense approved controllers, rain sensors, flow sensors, high
 efficiency rotars or rotatory nozzles, and irrigation pipping and identify
 additional places these items can be purchased.









This collaboration is key to creating an accessible program for the program applicants.

With the success of the programs, projects, and initiatives the Drought Task Force has been able to accomplish, in addition to this 2C WaterWise Program, the City of Nampa will likely identify opportunities to expand their current and future water saving programs and policies. The City of Nampa is leading the way for water conservation in the Treasure Valley, and this program is another step to support the current and future generations water demand.

Included in this application are letters of support from the following stakeholders:

- Boise Project Board of Control
- Southwest District of Health

4.7 Evaluation Criterion G – Additional Non-Federal Funding

The City of Nampa will provide \$131,500 of the total project cost of \$273,000, towards the cost of materials, staff resources, workshops, and funding for the rebates. Additionally, the City has already spent \$10,000 to create and refine the program concept and develop program branding materials. This amounts to a total of \$141,500 or a 52% non-Federal share of funding for the project. Additionally, the City will cover any rebate costs over the requested funding amount.

4.8 Evaluation Criterion H - Nexus to Reclamation

The City of Nampa receives water from two irrigation districts that have water service contracts with Reclamation. These are the Pioneer Irrigation District and the Boise Project Board of Control. Pioneer and Nampa-Meridian Irrigation District (NMID) supply irrigation water to the City, with both districts dependent on supply from Boise Project. Due to portions of the NMIID service area being supplied from Boise Project, they cannot supply water to all of their users unless Boise Project is also active. Pioneer is dependent on NMID drains supplying irrigation water, and therefore ultimately dependent on Boise Project as well. The City of Nampa's contracts with Pioneer and Boise Project are included as attachments of this report. For reference the City's contract with Pioneer dated April 15, 1935 and September 9, 1974, and the contract with BKID (Boise Project) Agreement Number 090491 dated September 6,1991 are included in Appendix C. The 2C Water-Wise Program will benefit both Reclamation contractors by utilizing water from the districts more efficiently and thereby saving 1.25 acrefeet of water per year. This will create more consistent flows within each system and improve each system's ability and resiliency.









PERFORMANCE MEASURES

After completion, the success of Nampa's 2C Water-Wise Program will be measured according to project objectives and quantifiable water savings identified for each rebate project. Water savings will be quantified by measuring a reduction in the LWR.

As a result of these rebates, LWR is expected to be reduced by 20.9 acre-feet of water per year. Success of this project will be determined based on the actual LWR reduction calculation's proximity to this estimate. The City also will have the ability to monitor irrigation watering data from ESI program projects through the installed smart controllers. Results will be documented in a booklet describing the program, along with photos illustrating the aesthetics of the areas transformed and metrics on water savings. The program will be considered a success if at least 100 households participate in the rebates and at least 50,000 SF of turf is replaced.



Example of Drought-tolerant Landscaping at Nampa's Lakeview Park Rain Garden









6 PROJECT BUDGET

6.1 Budget Proposal and Funding Plan

Table 2 depicts each budget item and the project cost over a year and a half. The budget includes:

- Program administration costs of \$45,000 total for marketing materials and a temporary part-time position to facilitate program implementation
- Environmental costs of \$1,000* that the City coordinated with the Bureau of Reclamation while completing the projects referenced under Evaluation Criterion H
- Public Works Department staff wages of \$7,000* to support workshops and other program activities
- Program workshops of \$5,000*, conducted by local landscape experts
- Rebate allocation of \$150,000
- Pre-award costs of \$5,000 for development of the program concept and branding materials.

The total program cost is \$200,000. With an additional \$\$13,000 in in-kind contribution not included in the total.

A letter of commitment provided by the City is located ahead with additional letters of support from local entities

Table 2: Program Cost Breakdown.

	PROJECTED COST (OVER 2 YEARS)				
Program Administration	Marketing Materials (Flyers & Other Marketing Collateral; Creation and maintenance of a program webpage)	\$5,000			
Administration	Temporary [new] Part-Time Position to facilitate program implementation	\$40,000			
Environmental*	\$1,000*				
Additional Staff	\$7,000*				
Program Works	\$5,000*				
Pre-Award Cos	\$5,000				
Rebate Payme	\$150,000				
	TOTAL	\$200,000 *			

^{*} In-kind contributions not included in total









Table 3 shows funding sources for non-federal entities. Non-Federal sources account for 50% of the program cost.

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

FUNDING SOURCES	AMOUNT					
Non-Federal Entities						
City of Nampa Water Resource Fund	\$100,000					
City of Nampa In-Kind Contributions	\$13,000*					
Non-Federal Subtotal	\$113,000					
Requested Reclamation Funding	\$100,000					

Table 4 identifies the source of funding for the program by Federal (50%), applicant (50%), and third-party contributions (6.5%).

Table 4: Total Project Cost.

SOURCE	AMOUNT
Cost to be reimbursed with the requested Federal funding	\$100,000
Cost to be paid by the applicant	\$100,000
Value of third-party in-kind contributions	\$13,000 *
TOTAL PROJECT COST	\$273,000





Example of Native Drought-tolerant Plants









7 BUDGET NARRATIVE

The total project cost is \$200,000, 50% of which will come from non-Federal sources, with an additional 50% of funding through the anticipated federal contribution from the WaterSMART Grant. Of the 50% non-Federal match, 100% will come from the City of Nampa Water Resource Fund, a self-sustaining enterprise fund operated by the City to cover the capital and operating expenses for the water and irrigation utility. The 6.5% of additional in-kind contributions are not calculated in the project total.

In addition to monetary contributions from this fund, as in-kind contributions the City will provide staff expertise, materials, and supplies for the required rebate workshops as well as an environmental review that will be coordinated with the Bureau of Reclamation (the Bureau quoted a cost to the City of \$1,000 for this support). The City will contribute \$7,000 in Public Works staff wages by providing support for public involvement, strategic initiatives support, and use of engineering services needed to support the required workshops and other program needs.

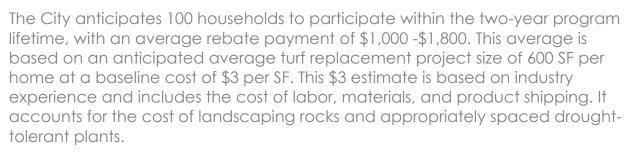
The budget includes:

- \$45,000 allocated to program administration costs, including marketing materials (Flyers & Other Marketing Collateral; Creation and maintenance of a program webpage) and a new, temporary part-time position to facilitate program implementation.
- \$13,000 for environmental work with the Bureau of Reclamation, staff wages, and workshop costs.
 - o These are in-kind contributions, which include environmental coordination and compliance valued at \$1,000; \$7,000 for public works' additional staff wages to support workshops and program; and costs for program workshops, including materials and local landscape experts' time, valued at \$5,000.
- \$150,000 is allocated to the rebate payments for residents applying to the program.
- \$5,000 for concept development, including logo, of the rebate programs*

^{*} The program will include pre-award costs of \$5,000. These costs were incurred beginning on FY25 for consultant support to develop the rebate programs' specifications and logos.







Any rebate payments required beyond the requested funding in this application will be paid by the City of Nampa.



Example of Drought-tolerant Landscaping









8 ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

The City of Nampa has been in consultation with the Bureau of Reclamation for the environmental compliance component of this application and intends to continue this coordination moving forward. Responses to the Section H.1 requirements from the NOFO are provided below.

1. 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.

All improvements completed as a result of this project are foreseen to be above-ground (in regards to irrigation controllers). This project proposes reintroducing native plant species and drought-tolerant plants, which will result in lower water usage throughout the community. By reducing water usage requirements for pedicured lawns, water can better be repurposed in the community for agricultural purposes instead, as well as will remain in the water system longer, with the potential to improve water quality.

In addition, the turf replacement component of this program will offer the opportunity to support biodiversity in Nampa with the reintroduction of native plant species and drought-tolerant plants. This support will provide critical animal habitat for native animal species in the region.

2. 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?

Endangered species within the project area include Slickspot peppergrass [plant - Lepidium papilliferum], Ute ladies' -tresses [plant - Spiranthes diluvialis], the Yellow Billed Cuckoo [bird - Coccyzus americanus occidentalis], and the Monarch butterfly [insect - Danaus plexippus]. Additionally, the Western Bumble Bee [insect - Bombus occidentalis] is listed as "petitioned" for review as of 2021.

This project is not anticipated to have any negative affect on the listed species; however, further evaluation will be completed during the environmental assessment and program guidelines will be developed to prohibit the removal of listed plants as well as plants critical to the habitat of listed insects and birds.









3. 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.

No Wetlands nor Waters of the United States are located within the project boundaries. Project impacts will occur on private property under the homeowner's direction.

4. When was the water delivery system constructed?

The City's water system was first constructed in 1972 and was most recently upgraded in 2022. Annual upgrades are made to the system to increase irrigation water quality. This is achieved by installing filtration systems at pump sites, improving water and energy efficiency by maintaining and replacing outdated/deficient equipment and improving pressures through the system by installing mainline to create adequate redundancy within the system. The system expands with every new land development, as the City's policy requires developers to extend mainlines to and through the frontage of newly developed properties annexed into the City.

5. 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 modifications will be made to the City or district's water delivery or irrigation systems.

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

The Pioneer and Boise-Kuna Irrigation District Boundaries encompass parts of the City of Nampa which includes numerous buildings, structures, and districts which are listed on the National Register of Historic Places. The project extents however will not encompass listed structures.

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

There are no known archeological sites within the proposed project area.









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

The proposed project will not adversely effect low income or minority populations. In fact, because the project will enable the repurposing

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

The proposed project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands.

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

The project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area. Equipment and vehicles will be free of noxious weeds and non-native invasive species prior to arriving at the project site.









9 REQUIRED PERMITS OR APPROVALS

No permits or approvals are required.









10 OVERLAP OR DUPLICATION OF EFFORT STATEMENT

There is no overlap between the Nampa's 2C WaterWise Program - Turf Replacement and Efficient Systems Irrigation Rebates and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel. In addition, the proposed rebates under this program do not in any way duplicate any proposal or project that has been or will be submitted for funding consideration to any other potential funding source—Federal or non-Federal.









11 CONFLICT OF INTEREST DISCLOSURE STATEMENT

No actual or potential conflict of interest exists at the time of submission.









12 UNIFORM AUDIT REPORTING STATEMENT

The City was required to submit a Single Audit report for the most recently closed fiscal year and was concluded in March 2022. The Employer Identification Number (EIN) associated with that report is 82-6000231 and is available through the Federal Audit Clearinghouse website.









13 LETTERS OF SUPPORT

Letters of support are provided on the following pages.

DEBBIE KLING MAYOR



NAMPA CITY HALL
411 3RD STREET SOUTH
NAMPA, ID 83651
(208) 468-5401
MAYOR@CITYOFNAMPA.US

OFFICE OF THE MAYOR

July 12th, 2022

Bureau of Reclamation Financial Assistance Operations Attn: Josh German, WaterSMART Grants Program Coordinator P.O. Box 25007, MS 84-27133 Denver, CO 80225

Dear Mr. German,

The City of Nampa is developing a Pilot Turf Replacement & Efficient System Irrigation Rebate sub-program as a part of the city's on-going 2C WATER-WISE PROGRAM water conservation efforts. The Public Works Department is applying for project funding from the Bureau's Water SMART Water and Energy Efficiency Grants. Water scarcity and water quality issues are ever-increasing concerns for the Lower Boise River watershed, making the ability to proactively address water supply concerns extremely important.

Implementation of the rebate program intends to reduce the residential demand for irrigation water, with the expectation that 100 households will participate during it's two years performance period. The anticipated reduction in water consumption expected could reduce water consumption by as much as 7,000 gallons per month.

In addition to providing reimbursement for turf replacement and efficiency improvements to existing irrigation systems, the program will encourage landscapes better suited to the area's high desert environment, provide resources for residents to become better informed on best watering practices and how to be good stewards of our water resources. Success and continuation of the pilot program could significantly contribute to the conservation of resources for farmers as well as minimizing the future build-out of infrastructure needed to keep up with demands, thereby reducing costs for homeowners long-term.

Nampa Public Works is administering the grant application and is prepared to manage the Pilot Turf Replacement & Efficient System Irrigation Rebate sub-program in accordance with the Bureau's funding requirements. City staff has received numerous funding awards from local and federal sources over the years and is intimately familiar with compliance procedures. Furthermore, the program information, project scope, and anticipated costs were put before City Council on July 5, 2022, providing formal approval for submission to the program and commitment of local funds to the project.

The City of Nampa is dedicated to serving the community and being a steward of water resources. As we say, using the right water for the right use represents one component of a healthy and sustainable approach to conserving water and protecting water quality in the Lower Boise River watershed. The Pilot Turf Replacement & Efficient System Irrigation Rebate sub-program will further exemplify Nampa's commitment to incorporate community values into management our water resources with forward-looking solutions to environmental sustainability and responsible stewardship.

Thank you for this opportunity to feasibly improve the City's efficiency utilizing irrigation water resources and further contribute to the well-being of our community.

Sincerely

Debbie Kling

Mayor

DAVID REYNOLDS CHAIRMAN OF THE BOARD

DONALD BARKSDALE VICE CHAIRMAN OF THE BOARD

ROBERT D. CARTER PROJECT MANAGER

THOMAS RITTHALER
ASSISTANT PROJECT MANAGER

APRYL GARDNER SECRETARY-TREASURER

MARY SUE CHASE ASSISTANT SECRETARY-TREASURER

BOISE PROJECT BOARD OF CONTROL

(FORMERLY BOISE U.S. RECLAMATION PROJECT)

2465 OVERLAND ROAD

BOISE, IDAHO 83705-3155

OPERATING AGENCY FOR 167,000 ACRES FOR THE FOLLOWING IRRIGATION DISTRICTS

> NAMPA-MERIDIAN DISTRICT BOISE-KUNA DISTRICT WILDER DISTRICT NEW YORK DISTRICT BIG BEND DISTRICT

Bureau of Reclamation Financial Assistance Operations Attn: Josh German, WaterSMART Grants Program Coordinator P.O. Box 25007, MS 84-27133 Denver, CO 80225

TEL: (208) 344-1141 FAX: (208) 344-1437

Subject: Support for the City of Nampa's Turf Replacement & Efficient System Irrigation Rebate Proposal for funding from the Bureau's WaterSMART Water and Energy Efficiency Grants

Dear Mr. German,

Boise Project Board of Control expresses its full support for the City of Nampa's Turf Replacement & Efficient Systems Irrigation Rebate Proposal and urge the Bureau to fund the City's application.

Water scarcity and water quality issues are ever-increasing concerns for the Lower Boise River watershed, making the ability to proactively address water supply concerns extremely important. Implementing the rebates will promote water conservation and efficiency, reduce residential irrigation demands, and improve water management throughout their community, thereby throughout our shared systems.

The potential reduction of water consumption by as much as 7,000 gallons per month if just 100 residences participate is an exciting prospect. Level of service is becoming more difficult to maintain due to changing water use upstream and uncertainty in long-term water supplies across the region. Most years, irrigation service can be provided through the entire growing season, which extends from April to October. However, that has not been the case in recent history as irrigation services experienced a delayed start to the season this year and were shut-off early the year before.

Drought tolerant and native planting landscape options for Idaho's high-desert environment are a forward-looking solution to encouraging responsible environmental stewardship and to restore resilient landscaping. Reducing the residential demand for irrigation water will conserve resources for farmers and could reduce costs for homeowners long-term. The positive influence of quality landscape conversions is likely to improved water conservation awareness amongst the community and will hopefully set a precedent for conscious change to secure water supplies for future generations.

The Project is in support of the Department's priorities. The City's dedication to serving the community and being a steward of water resources by using the right water for the right use represents one component of a healthy and sustainable approach to conserving water and protecting water quality in the Lower Boise River watershed.

Thank you for this opportunity to provide support for this project application and contribute to the well-being of our community.

Sincerely

Thomas B Ritthaler

Assistant Project Manager

Boise Project Board of Control 2465 Overland Rd. Boise, Idaho 83705-3173 Bureau of Reclamation Financial Assistance Operations Attn: Josh German, WaterSMART Grants Program Coordinator P.O. Box 25007, MS 84-27133 Denver, CO 80225

Subject: Support for the City of Nampa's Pilot Turf Replacement & Efficient System Irrigation Rebate Proposal for funding from the Bureau's WaterSMART Water and Energy Efficiency Grants

Dear Mr. German,

City of Nampa Environmental Compliance Division expresses its full support for the City of Nampa's Pilot Turf Replacement & Efficient Systems Irrigation Rebate Proposal and urge the Bureau to fund the City's application.

Water scarcity and water quality issues are ever-increasing concerns for the Lower Boise River watershed, making the ability to proactively address water supply concerns extremely important. Implementing the rebates will promote water conservation and efficiency, reduce residential irrigation demands, and improve water management throughout their community, thereby throughout our shared systems.

The potential reduction of water consumption by as much as 7,000 gallons per month if just 100 residences participate is an exciting prospect. Level of service is becoming more difficult to maintain due to changing water use upstream and uncertainty in long-term water supplies across the region. Most years, irrigation service can be provided through the entire growing season, which extends from April to October. However, that has not been the case in recent history as irrigation services experienced a delayed start to the season this year and were shut-off early the year before.

Drought tolerant and native planting landscape options for Idaho's high-desert environment are a forward-looking solution to encouraging responsible environmental stewardship and to restore resilient landscaping. Reducing the residential demand for irrigation water will conserve resources for farmers and could reduce costs for homeowners long-term. The positive influence of quality landscape conversions is likely to improved water conservation awareness amongst the community and will hopefully set a precedent for conscious change to secure water supplies for future generations.

This project will help the city maintain its Municipal Separate Storm Sewer System (MS4) permit issued by the EPA. This will help to minimizing overwater and runoff from turf. Removing turf will help improve overall surface water quality by minimizing pesticide, fertilizer, E. Coli and Sediment laden runoff reaching surface water throughout Nampa. The Quality of Nampa's waterways could be improved by the Turf Replacement Program.

The Project is in support of the Department's priorities. The City's dedication to serving the community and being a steward of water resources by using the right water for the right use represents one component of a healthy and sustainable approach to conserving water and protecting water quality in the Lower Boise River watershed.

Thank you for this opportunity to provide support for this project application and contribute to the well-being of our community.

Sincerely,

Kyle Schalb
City of Nampa

Stormwater Specialist



July 12, 2022

Bureau of Reclamation Financial Assistance Operations Attn: Josh German, WaterSMART Grants Program Coordinator P.O. Box 25007, MS 84-27133 Denver, CO 80225

Subject: Letter of Support for the City of Nampa's Turf Replacement & Efficient System Irrigation Rebate Proposal for funding from the Bureau's WaterSMART Water and Energy Efficiency Grants

Dear Mr. German,

Southwest District Health expresses its full support for the City of Nampa's Turf Replacement & Efficient Systems Irrigation Rebate Proposal and urges the Bureau to fund the City's application.

Water scarcity and water quality issues are ever-increasing concerns for the Lower Boise River watershed, making the ability to proactively address water supply concerns extremely important. Implementing the rebates will promote water conservation and efficiency, reduce residential irrigation demands, and improve water management throughout their community, thereby throughout our shared systems.

The potential reduction of water consumption by as much as 7,000 gallons per month if just 100 residences participate is an exciting prospect. Changing water use upstream and uncertainty in long-term water supplies across the region have made maintaining the level of service more difficult. Most years, irrigation service can be provided through the entire growing season, which extends from April to October. However, irrigation services experienced a delayed start to the season this year and were shut-off early the year before.

Southwest District Health appreciates the City of Nampa's dedication to serving the community and being a steward of water resources. Using the right water for the right use represents one component of a healthy and sustainable approach to conserving water and protecting water quality in the Lower Boise River watershed.

Thank you for the opportunity to provide support for this project application and contribute to the well-being of our community.

Sincerely,

Nikole Zogg, PhD, MPH District Director









14 OFFICIAL RESOLUTION

Official resolution from City of Nampa elected leaders is included on the following pages.

RESOLUTION NO. 39-2022

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NAMPA, CANYON COUNTY, IDAHO TO AUTHORIZE U.S. DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION WATERSMART GRANTS: WATER AND ENERGY EFFICIENCY GRANTS FOR FISCAL YEAR 2023 GRANT FUNDING APPLICATION

WHEREAS, The Nampa City Council authorizes the City of Nampa to submit the application to the WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2023 program under the Bureau of Reclamation, requesting funding for a pilot rebate project to include reimbursements for turf replacement and efficient system irrigation upgrades

WHEREAS, Mayor Debbie Kling has formed the City of Nampa's Drought Task Force with a goal to develop strategies to educate the community and identify ways to optimize and maximize available irrigation water. A new initiative has been under development based on discussions and activities of the Drought Task Force, Nampa's 2C Water-Wise Program.

WHEREAS, Public Works seeks to apply to the Bureau of Reclamation's Fiscal Year 2023 WaterSMART Water and Energy Efficiency Grants (WEEG) funding opportunity for Pilot Turf Replacement & Efficient System Irrigation Rebates, to be available as part of Nampa's 2C Water-Wise Program.

WHEREAS, Implementation of the pilot rebate program is anticipated to begin at the start of the City's 2024 fiscal year, October 1, 2023, with a period of performance through the end of the 2025 fiscal year, September 30, 2024.

WHEREAS, The application requests \$125,000 to be funded from the program, with a 50% match of local funds to be committed by the City.

WHEREAS, City staff will work with the Bureau of Reclamation to meet established deadlines for entering into agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF NAMPA, IDAHO:

The City of Nampa, Canyon County, Idaho will commit to the financial and legal obligations associated with receipt of financial assistance under Funding Opportunity Announcement No. R23AS00008, WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2023 announcement and authorize Public Works Director to sign and submit the U.S. Department of Interior, Bureau of Reclamation WaterSMART Grants: Water and Energy Efficiency Grants for Fiscal Year 2023 Funding Application.

PASSED BY THE COUNCIL OF THE CITY OF NAMPA, IDAHO, THIS 5^{th} DAY OF JULY 2022.

APPROVED BY THE MAYOR OF THE CITY OF NAMPA, IDAHO, THIS 16^{th} DAY OF JULY, 2022.

APPROVED:

Mayor Debbie Kling

ATTEST:

City Clerk

2