



*Patriotic Traditions*

## **WaterSMART Small-Scale Water Efficiency Project**

### **D.2.2.2 Title Page**

The Town of Taylor Arizona is a small (Population 4,447) rural community with a rich history and strong sense of faith and community. Like many rural, blue collar municipalities, Taylor has limited funds available for major capital improvement projects to provide adequate, sustainable water delivery in the varied climatic conditions they experience. Please note that the attached resolution will be approved by the Taylor Town Council at their March 5, 2020 meeting.

The project for which the Town is seeking this matching grant has two major components:

1. Embark on Phase One of a system wide, turnkey residential meter replacement program utilizing radio read meters and associated billing program. A majority of the Town's existing water meters are in excess of twenty (20) years old and have recorded over one million (1,000,000) gallons of flow. Testing of a representative sample of twelve (12) of the system's water meters showed all but two (2) meters were under-recording, especially at low flows. Once Phase One is complete the Town would be able to immediately begin billing with the new meters and program which would significantly increase revenues and greatly enhance their ability to track and reduce water loss. Using radio reads would also reduce the errors inherent in manually reading and recording the meter reads on paper along with reducing the labor, equipment and other resources necessary to manually read meters. The laborious process of transferring the meter readings from paper into the billing computer would also be significantly shortened. The Town intends to complete a similar project at a future time for its commercial and multi-family water meters.
2. Install water meters (approximately 30) on all Town owned buildings, parks and irrigation lines. This component will not increase revenues; as the Town does not charge themselves for water usage however for the first time, it will allow the Town to accurately track the amount of water used by these facilities. Being able to track water usage in these areas will also aid in locating leaks and in the case of the irrigation lines, ensure the vegetation is not being over watered.

The Town of Taylor lies in a broad valley in east-central Arizona at an elevation of 5,640 feet with the Mogollon Rim to its west and the White Mountains to the south. The Town is in Navajo County and although small in population, its incorporated area covers twenty-six (26) square miles which is indicative of a huge potential for growth. The GPS coordinates for Taylor are 34°27'57"N | 10°6'16"W. Town of Taylor contact information is:

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Taylor, AZ 85939  
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Sustainable Water Solutions  
655 East Breezy Knoll Lane  
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## **WaterSMART Water and Energy Efficiency Project Application**

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## **WaterSMART Water and Energy Efficiency Project Application**

### **D.2.2.4 Technical Proposal and Evaluation Criteria**

#### **1. Executive Summary**

March 2, 2020

The Town of Taylor Arizona is a small rural community with approximately 4,447 residents located in Navajo County in east/central Arizona. The Town has numerous capital improvement needs and required infrastructure upgrades so a five-year capital plan was formulated to prioritize their needs. Taylor has a small customer base and limited revenues available to fund their necessary capital improvement projects therefore obtaining grant funds to help defer some of these costs is critical to their continued successful water system operations. In conjunction with completion of their five-year capital plan the Town has also undertaken a rate study and adopted new water rates effective in January of 2019 to allow for adequate operational funding and begin establishing sufficient capital reserves to fund future capital needs projects. As the result of an inspection of the Town's 310,000-gallon potable water reservoir in 2018, it was determined the tank no longer complied with regulatory statutes and was in danger of imminent failure. Because this reservoir was a vital component of meeting water demand in warmer months private financing was obtained and a new water reservoir was bid and constructed along with removal of the obsolete reservoir.

#### **2. Background Data**

The project for which this grant application is being submitted is Phase One of a turnkey system wide water meter replacement program and conversion to a radio read documentation and billing process. Additionally, Taylor desires to install water meters on all Town owned buildings, parks and irrigation systems to allow them to document the total amount of water being used in an effort to accurately calculate their total water loss. Taylor Arizona is in Navajo County, located approximately at GPS coordinates; Latitude: 34°27.9024' N and Longitude: 110°5.4738' W. Snowflake Arizona is on Taylor's northern border and Show Low Arizona is approximately sixteen (16) miles south.

Taylor's water system is supplied totally by ground water and for calendar year 2019 their total pumpage was 372,795,060 gallons. Taylor supplies water to approximately 1,340 accounts with a majority being residential and the remainder a mix of commercial, industrial, multifamily and agricultural. Although Taylor has a population of about 4,447 residents, the incorporated boundaries cover twenty-six (26) square miles and the potential for a significantly increased population and water demand is high.



## WaterSMART Water and Energy Efficiency Project Application

### D.2.2.4

### Technical Proposal and Evaluation Criteria

#### Project Description

Like many small rural communities, Taylor Arizona struggles to provide cost effective services to its residents and visitors with a limited budget and minimal staffing. Operation of a Municipal water system is becoming more expensive and complex as the plethora of new State and Federal regulations coupled with a dwindling statewide water supply have increased the cost of providing this most basic of human needs. The Town and its Manager have identified efficiency and conservation as a priority need to meet the demands of successfully operating a water system in the long-term.

Taylor currently has one thousand three hundred and thirty-nine water accounts (1,339), one thousand two hundred sixty (1,260) are residential and seventy-nine (79) are commercial/multi-residential. It has been over twenty years since the Town last conducted a system wide replacement of its residential water meters and the current meters require the labor -intensive task of manually recording the meter reads on paper, each month and then having the billing clerk transfer the hand written reading into the billing computer. This task can take a week or more to complete each month and, because the reads are being manually entered twice, the potential for a billing error are significant.

Realizing that meters, particularly residential, slow as they age especially when they have in excess of one million gallons recorded the Town decided to have a representative sample of the existing meters of varying age and gallons logged tested by an independent testing agency. Of the twelve (12) meters the Town sent in for testing, ten (10) failed to meet the minimum standards for accuracy. The finding from the testing for all twelve (12) meters showed the following cumulative results:

- Low Flow: Eighty seven percent of flow recorded
- Medium Flow: Ninety-six percent of flow recorded
- High Flow: Ninety-six percent of flow recorded

The results of the low flow testing are particularly troubling as small leaks, which the resident would likely not discover, are not being accurately recorded yet can add up to a significant amount. A one quarter (1/4) gallon per minute leak adds up to over ten thousand (10,000) gallons per month. The type of meter currently installed in Taylor does not have the benefit of a low flow leak detector which modern meters have as a built-in feature. Because most residential leaks are low flow and a significant majority take place in the toilet mechanism, this is potable water that is literally going down the sewer with no benefit to the Town or customer.

The Town conducted a water rate review and analysis in 2018 and a corresponding rate increase was approved by Council and became effective in January of 2019. With obsolete, under-reporting water meters raising the rates will not have a significant impact on water conservation as most customers will still not be charged for the actual amount of water they use. Accurate documentation of water use along with a conservation-based water rate system is the most effective tool for encouraging lower usage. Combining a meter replacement program with such a rate system makes customers much more aware of the amount of water they are using thereby increasing conservation compliance.

The project for which this application is being submitted has two components:

- The Town proposes to embark on a phased (Phase One will involve approximately 425 residential meters), system wide, turnkey residential meter replacement program utilizing radio read meters and the associated billing program. The program would include installation of all new residential meters by a firm contracted with the meter vendor. The Town has a very small workforce and installing that many meters with their limited staff would take several years and detract from their other duties. Having the meters installed by contracted staff who are well trained in the process would be more efficient and result in less damage to infrastructure and mistakes in the transfer of information to the new billing program. Once the install is complete the Town would be able to immediately begin billing with the new meters and program which would significantly increase revenues. Using radio read meters would also

reduce the manpower and recording errors inherent in manually reading and recording the meter reads on paper. A similar scenario would apply to the process of manually transferring the meter reads from paper into the billing computer. The Town is also in the process of reviewing its commercial and multifamily meters to determine if they are properly sized for the demand. Armed with that information the Town would be able to replace these meters, which have the same age and usage issues of the residential meters, with the proper size and type of meter to ensure all water passing through is properly recorded in a future phase.

- Installing approximately 30 water meters on the Town's buildings and irrigation lines would allow better recordkeeping and analysis of their unaccounted-for water. Installation of these meters would also help determine if the buildings had leaks and whether the amount of water being utilized for irrigation is proper based on the time of year and what type of vegetation is being irrigated. Because these are all owned by the Town and would not be billed, this would not increase revenue but would allow for accurate documentation of the amount of unaccounted for water or water loss which is becoming increasingly important as they move to become more conservation minded.

### **Performance Measures**

The Town proposes to track performance of these improvements by several methods:

- Tracking the increase in the amount of water billed; because this would be a turnkey project and the conversion for Phase One would take about 2 months the results would be evident relatively quickly.
- Correspondently track the total water pumped to the system and after several months track whether the accurate water use now being recorded and an increase in the water rates has lowered the amount pumped and increased the amount billed.
- Calculate, to the best of the Town's ability, the current unaccounted-for water and then once the meters are installed determine the extent to which this number has been reduced. Currently because of the magnitude of under reporting meters and municipal buildings and irrigation lines being unmetered, it is difficult to accurately determine their water loss.
- Document the efficiencies realized by conversion to a radio read meter system. Because Taylor has a significant amount of area within its corporate boundaries (26 square miles), to manually read the meters involves traveling significant distances between subdivisions and isolated residences versus the typical water system and its contiguous neighborhoods which allow the meter reader to walk most of their route. The amount of time to read the entire system manually normally involves four to seven days, longer if there is snow or bad weather.
- Document the amount of time saved by the billing clerk in generating the monthly water bills and the reduction in re-reads or incorrect bills due to the elimination of manually transferring the readings into the meter books and then from the meter books to the billing program.

## Section E. Application Review Information

**Evaluation Criterion A-Project Benefits (35 points)** Up to 35 points may be awarded based upon evaluation of the benefits that are expected to result from implementing the proposed project. This criterion considers a variety of project benefits, including the significance of the anticipated water management benefits and the public benefits of the project. This criterion prioritizes projects that modernize existing infrastructure in order to address water reliability concerns, including making water available for multiple beneficial uses and resolving water related conflict in the region.

*To aid in their water conservation efforts, the Town adopted a Drought and Water Shortage Preparedness Plan which complies with regulatory guidelines. The Town also desires to establish a water conservation plan however because of the condition of the systems water meters it is not possible to accurately document the water loss between the amount pumped and the amount billed. A component of this overall project is to install meters on the Towns buildings and irrigation lines to better manage the amount of watering based on climate, time of year and type of vegetation along with domestic use in their facilities. This information will be invaluable in reacting to changes in climactic and land use variables. The advancement in meter recording and billing operations makes it possible to track water use and concurrently the wasting of water. Radio read technology has significantly reduced the manpower necessary to read and bill meters while at the same time reducing reading and billing errors.*

*The Town is involved in Little Colorado adjudication process and this type of water use documentation is invaluable in a successful long-term water assurance process. The adjudication is a lengthy and contentious process with the parties concerned about protecting their future water supplies. By taking the initiative to enhance their water use documentation and conservation, the Town is showing they are committed to assuring future water supplies which should help reduce some of the tensions. The Town, and many of the other water systems involved in the adjudication are small rural communities who struggle with having sufficient funding to embark on this type of project. If Taylor is successful in completing this project it would supply motivation and a blueprint for others to follow suit. This program will be well received by the adjudication group as it moves towards the long-term goal of assured future water supplies.*

*Accurately being able to track their water loss will enable the Town to aggressively identify leaks and wasted water, this will in turn result in a reduction in the amount of water pumped from the aquifer. By being proactive in its water use documentation and conservation, the Town will show its residents and neighboring communities that it takes our future water supply availability seriously and indicate their commitment to future generations. A critical component to water conservation is to lead by example. Because the Town does not currently meter municipal building and irrigations systems, the residents may balk at a program which the Town does not follow. Metering of these facilities will make it more transparent for the residents to clearly see that the Town is taking the lead on water conservation and subsequently get on board with the program.*

*The Town currently supplies reclaimed water for on-farm irrigation. Potable water is not normally supplied for this purpose but with the abundance of livestock ranching in the area, the Town would have the ability to provide emergency livestock water in case of an extended drought or shortage.*

**Evaluation Criterion B-Planning Efforts Supporting the Project (35 points)** Up to **35 points** may be awarded based on the extent to which the proposed JrObject is supported by an applicant's existing water management plan, water conservation plan, System Optimization Review, or identified as part of another planning effort led by the applicant. This criterion prioritizes projects that are identified through local planning efforts and meet local needs.

*A system wide turnkey water meter replacement program was identified in 2017 as the Town's top project on the Capital Improvements Plan priority list. The priority list was drafted based on initial input from the Town Manager, Public Works Director, Utilities Supervisor and other city staff. The city's utility consultant then merged the information into a document and sent it to all involved for review and comment. After receiving the comments, a final draft of the list was prepared and sent to all involved for a final review and approval.*

*A majority of the Town's existing water meters are in excess of twenty (20) years old and have recorded over one million (1,000,000) gallons of flow. Testing of a representative sample of twelve (12) of the systems water meters showed all but two (2) meters were under-recording, especially at low flows. Once the install is complete the Town would be able to immediately begin billing with the new meters and program which would significantly increase revenues and greatly enhance their ability to track and reduce water loss.*

*Based on this information the Town realized raising the rates, while not addressing the obsolete under-reporting water meters will not have a significant impact on water conservation as most customers will still not be charged for the actual amount of water they use. Accurate documentation of water use along with a conservation-based water rate system is the most effective tool for encouraging lower usage. Having a significant number of under recording meters will also not generate sufficient revenues to fund the Capital Improvement Projects which the Town is in need of completing to continue successful and regulatory compliant operation of their water system. Combining a meter replacement program with such a rate system makes customers much more aware of the amount of water they are using thereby increasing conservation compliance while maintaining sufficient revenues to fund additional needed capital improvements. Ensuring that all customers are being billed/or the actual amount of water they use will also make the rates equitable and fair for all.*

*As the result of an inspection of the Town's 310,000-gallon potable water reservoir in 2018, it was determined the tank no longer complied with regulatory statutes and was in danger of imminent failure.*

*Removal of the existing tank and construction of a new reservoir had been second on the CIP priority list. Because this reservoir was a vital component of meeting water demand in warmer months and staying regulatory compliant, private financing was obtained and a new water reservoir was bid and constructed along with removal of the obsolete reservoir.*

**Evaluation Criterion C-Project Implementation (10 points)**

Up to **10 points** may be awarded based upon the extent to which the applicant is capable of proceeding with the proposed project upon entering into a financial assistance agreement.

Applicants that describe a detailed plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.

*The Town has researched options to obtain new meters and it appeared that the best and most expeditious option was to reach an agreement with a larger agency to utilize their water meter contract derived from a competitive bidding process. The Town has received permission from the City of Goodyear to piggyback on a large-scale radio read meter replacement program they competitively bid which will result in a significant savings due to the economy of scale. The meter manufacturer (Neptune Technology) has indicated they will honor the pricing in the Goodyear contract which will also save the Town the cost of preparing and advertising bids for the water meters and associated equipment. It is anticipated that all phases of this project will replace approximately one thousand two hundred sixty (1,260) residential ¾" meters, fifty-two (52) 1" meters and twenty-eight (28) 2" meters will be installed. For the Town to bid the meter purchase on their own would result in higher pricing because of the small number of meters they require versus a City with a population of over sixty-five thousand (65,000) residents.*

*The program would include installation of all new residential meters by a firm contracted with the meter vendor (a component of the Goodyear bid and project). The Town has a very small workforce and installing that many meters with their limited staff would take several years and detract from their other duties. Having the meters installed by contracted staff who are well trained in the process would be more efficient and result in less damage and mistakes in transfer of information to the new billing program. By utilizing the Goodyear contract the Town is able to forgo the lengthy, labor intensive process of advertising, bidding, analyzing and awarding a new meter contract. It is anticipated that if the Town was to receive this grant, meter installation for Phase One would begin within 90 days of the grant approval and Phase One (425 residential meters) would be completed in about 60 days.*

*Because this is considered a replacement project the only permit/study the Town is aware of being required is a Federal Environmental Compliance review. The Town has submitted a request to Jessica Asbill- Case from the BOR Phoenix office requesting an estimated cost for this study (a copy of email is*

*in the appendix). Due to the Town utilizing the Goodyear contract no engineering or design work would be required and the other component, an associated rate study and implementation of new rates has been completed and approved.*

***Proposed Schedule: (subsequent to award of grant)***

***Months 1 to 3:*** Determine number of meters and identify associated equipment to purchase based on Goodyear, AZ existing contract. Order meters and equipment.

***Months 4 to 6:*** Installation of Phase One meters, delivery and startup of associated equipment and training in use of radio read interrogator, transfer of data to billing program and billing of accounts.

***Month 7:*** Fully utilize meters and billing equipment installed in Phase One.

**Evaluation Criterion D-Nexus to Reclamation (10 points)**

Up to **10 points** may be awarded based on the extent that the proposal demonstrates a nexus between the proposed project and a Reclamation project or activity. Describe the nexus between the proposed project and a Reclamation project or activity.

*The applicant supplies residents with only ground water so it does not directly utilize Reclamation water however the Town is located in the Little Colorado River Basin which flows into the Colorado River that in turn provides water to Arizona, California and Nevada. By reducing current and future pumping from the aquifer, this project will enhance the available water feeding the basin and contribute to the users of reclamation waters from the river.*

*The Town does supply reclaimed water from its water reclamation facility for farming and agricultural uses and while that practice is not directly related to this process, it reduces some use of surface water in these rural areas.*

**Evaluation Criterion E- Department of the Interior and Bureau of Reclamation Priorities (10 points)** Up to 10 points may be awarded based on the extent that the proposal demonstrates that the project supports Department and Reclamation priorities. Please address those priorities that are applicable to your project. It is not necessary to address priorities that are not applicable to your project. A project will not necessarily receive more points simply because multiple priorities are addressed. Points will be allocated based on the degree to which the project supports one more of the Priorities listed, and whether the connection to the priority(is) is well supported in the proposal.

*This project supports Reclamation priorities in several ways:*

- *By incorporating new " smart" meters this project uses the latest scientific technology to identify and track high water use and residential leaks which are a vital component in reducing the overall groundwater pumpage. This in turn will greatly enhance the ability to protect and manage the areas limited water resources. (Fawn priority 1, Reclamation priority 1a, 2a, 3a and 5a&c)*
- *The adjudication process brings together numerous small rural communities and this type of project can be a guideline for other small water systems to follow in the effort to conserve water resources. (Fawn priority 1, Reclamation priority 1a, 3a and 5a)*
- *This project would modernize the water use documentation infrastructure in the Town and by reducing pumpage and increasing revenues, allow the Town to fund other desperately needed infrastructure improvements. (Fawn priority 1, Reclamation priority 1a, 2a and 5a, b&c)*

**D.2.2.5**

**Project Budget**

**Funding Plan:**

The Town has sufficient capital reserves on hand to fund their portion (\$75,000) of the matching grant. The Town is also prepared to have staff assist in the coordination and monitoring of this project in any way necessary.

**Budget Proposal:**

**Table 1.-Total Project Cost Table**

<b>SOURCE</b>	<b>AMOUNT</b>
Costs to be reimbursed with the requested Federal funding	\$75,000
Costs to be paid by the applicant	\$76,745.28
Value of third-party contributions	\$
<b>TOTAL PROJECT COST</b>	<b>\$151,745.28</b>

<b>BUDGET ITEM DESCRIPTION</b>	<b>COMPUTATION</b>		<b>Quantity Type</b>	<b>TOTAL COST</b>
	<b>\$/Unit</b>	<b>Quantity</b>		
<b>Salaries and Wages</b>				
Employee 1				\$
Employee 2				\$
Employee 3				\$
<b>Fringe Benefits</b>				

**Budget Narrative:**

The Town has limited funds available for this project and obtaining a grant is imperative if this work is to move forward. The budget has been based on an existing contract for water meters and associated equipment between the City of Goodyear Arizona and Neptune Technologies . This contract is the result of a competitive bidding process Goodyear initiated and Neptune was awarded the contract based on the bid they submitted. Goodyear and Neptune have both indicated they will allow the Town to purchase meters, installation and associated

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTAL COST
	\$/Unit	Quantity		
Full-Time Employees				\$
<b>Salaries and Wages</b>				
Employee 1				\$
Employee 2				\$
Employee 3				\$
<b>Fringe Benefits</b>				
Full-Time Employees				\$
Part-Time Employees				\$
<b>Travel</b>				
Trip 1				\$
Trip 2				\$
Trip 3				\$
<b>Equipment</b>				
3/4 " water meter including tax	\$272.35	425	each	\$115,748.75
MRX 920 Mobile Collector w/tax	\$7,451.53	one	each	\$7,451.53
Training	\$2,100	one		\$2,100
<b>Supplies and Materials</b>				
Item A				\$
Item B				\$
<b>Contractual/Construction</b>				
Meter Install and Data Transfer	\$55	425	each	\$23,375
Contractor B				\$
<b>Other</b>				
B.O.R CEC Study	2,500	one	each	\$2,500
<b>TOTAL DIRECT COSTS</b>				\$
<b>Indirect Costs</b>				
Type of rate	percentage	\$base		\$
<b>TOTAL ESTIMATED PROJECT COSTS</b>				<b>\$151,745.28</b>

equipment based on this contract. The Town continually monitors the number of active accounts and these budgetary costs were developed using the number of current accounts and meter sizes multiplied by the costs contained in the Goodyear contract.

## D.2.2.6 Environmental and Cultural Resources Compliance

### D.2.2.6. Environmental and Cultural Resources Compliance

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to:

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

*The meter replacement project will not have an impact on the surrounding environment as almost all of the meters being replaced are already located in a meter box so no soil will be disturbed in replacing them. The meters being installed on Town buildings and grounds which previously did not have water meters will involve a small (3' by 3' at most) excavation which will be dug by hand.*

- 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?

*NO*

- 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*

- When was the water delivery system constructed?

*Work on the potable water delivery system began in the 1950's and the most recent addition was in 2018 when a new water reservoir was constructed to replace an obsolete and non-compliant water reservoir.*

- 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 this project will not have any effect.*

- 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.

*This project will not involve any buildings on the National register of Historic Places.*

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

*There are not any known archeological sites in the project area.*

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

*This project will not.*

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

*NO*

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

*NO*

#### **D.2.2.7. Required Permits or Approvals**

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

*Because this is considered a replacement project the only permit/study the Town is aware of being required is a Federal Environmental Compliance review. The Town has submitted a request to Jessica Asbill- Case from the BOR Phoenix office requesting an estimated cost for this study (a copy of email is in the appendix).*

#### **D.2.2.10 Official Resolution**

*The Town will present the following resolution to the Taylor Town Council at its next meeting on Thursday March 5, 2020.*

TOWN OF TAYLOR  
RESOLUTION R2020-1

A RESOLUTION SUPPORTING A SYSTEM WIDE WATER METER REPLACEMENT PROJECT AND APPROVING SUBMISSION OF A GRANT APPLICATION (Funding Opportunity BOR-DO-20-F006) TO THE UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION.

WHEREAS, The TOWN is in need of improvements to its water usage recording, documentation and billing infrastructure.

WHEREAS, The Bureau of Reclamation is accepting application for Small-Scale Water Efficiency Projects Funding Opportunity (\$75,000 Maximum Award) through its WATER SMART program.

WHEREAS, The TOWN has identified a system wide water meter replacement and installation of meters on Town owned buildings and property.

WHEREAS, The Bureau of Reclamation has indicated these type system improvements are eligible for submission of a Water Smart Small-Scale Water Efficiency Projects Funding Opportunity grant application.

THEREFORE, BE IT RESOLVED, by the Mayor and Council of the Town of Taylor, Navajo County, Arizona;

1. The Taylor Town Council supports providing matching funds from their capital projects account for a system wide water meter replacement program and installation of water meters on Town buildings and property
2. The Taylor Town Council approves submission of a Water Smart Small-Scale Water Efficiency Projects Funding Opportunity application to the Bureau of Reclamation and will work with the Bureau of Reclamation to meet established deadlines for entering into a grant agreement
3. The Town Council authorizes Town Manager Gus Lundberg having the legal authority to review and submit this grant application and enter into an agreement for grant funding.

Adopted and approved this 5th day of March, 2020.

ATTEST:

\_\_\_\_\_  
Geri Judd, Town Clerk

\_\_\_\_\_  
David Smith, Mayor

APPROVED AS TO FORM:

\_\_\_\_\_  
William J Sims III, Town Attorney

## APPENDIX

### 1.1: Capital Improvements Priority List

#### Taylor CIP Priority List Water

First:	
System wide water meter replacement (all phases)	\$400,000
Increase water main size from 1.25" to 6" 900 W Center to Willow/1,020'	\$73,300
Install PRV between Hole in Hill gravity and Rolling Hills Gravity Systems	\$15,000
Purchase Backhoe	\$75,000
Emergency backup generator for the following wells:	
	Hole in the Hill
	Rolling Hills
	Pete's Well
	Sweetwater Ranch
Second:	
Increase water main size from 2.5" to 6" West Tumbleweed, Main to 200W and Willow, Center to Willow/2,000'	\$274,000
Increase water main size from 3" to 6" Alley between 700W and 600W, Center Street to Willow/1,000	\$72,000
Install PRV between Rolling Hills pressure and Hole in the Hill Gravity systems	\$18,000
Third:	
Increase water main size from 4" to 8" Center from 500W to Highland/2,200'	\$190,000
Increase water main size from 2.5" to 6" Highland to 1100 West/ 4,000'	\$288,000
Increase water main size from 2" to 6" 500 East Center to Willow/1,000'	\$72,000
Increase water main size from 2.5" to 6" 400 East Center to Willow/1,000'	\$72,000
Increase water main size from 2.5" to 6" E Tumbleweed 400 E to 700 E/1,500'	\$108,000
Increase water main size from 2" to 6" 1,000 E Middle to End of Street/1,000'	\$72,000
Increase water main size from 2" to 6" Bull Duck 1000 E to 1100 E/600'	\$42,500
Insert 20 main line valves in Rolling Hills System	\$100,000
Increase pumping capacity at Center Street Well	\$35,000
Construct 250,000 reservoir and Cl2 injection system at Pete's Well	\$225,000
Increase water storage capacity (additional 250,000 gallons) and install booster pump system at Sweetwater Well	\$265,000
Fourth:	
Increase water main size from 2" to 6" 600 E Center to Willow/1,000'	\$72,000

## 1.2 Email Regarding CEC:

**Subject:** Re: CEC cost

**From:** "Asbill-Case, Jessica R" <[jasbillCase@usbr.gov](mailto:jasbillCase@usbr.gov)>

**Date:** 2/ 27/ 2020, 10:38 AM

**To:** Dan Lueder <[swo@commspeed.net](mailto:swo@commspeed.net)>

**CC:** Gus Lundberg

Dan,

An estimated cost for a CEC for the Town of Taylor will be approximately \$2,500. Please use this amount in planning your budget for environmental compliance.

Thanks,

Jessica Asbill-Case  
US Bureau of  
Reclamation 623-  
773-6273

**From:** Dan Lueder  
<[swo@commspeed.net](mailto:swo@commspeed.net)> **Sent:** Thursday,  
February 27, 2020 7:21:19 AM **To:** Asbill-  
Case, Jessica R <[jasbillCase@usbr.gov](mailto:jasbillCase@usbr.gov)> **Cc:**  
Gus Lundberg <[gus@tayloraz.org](mailto:gus@tayloraz.org)>

**Subject:** [EXTERNAL] CEC cost

Jessica,

Would you please provide me with an estimated cost for a CEC on the Town of Taylor, AZ meter replacement project. Thank You, Dan

Dan Lueder  
Sustainable Water Operations  
928-821-2557

### 1.3 Goodyear, AZ Meter Pricing Sheet:

## Neptune Water Meters

E-Coder R900i

### IJEMQESCRIPJPN

<b>PD WATER METERS</b>	Oct 2015 -18	<u>Requested</u> Increase	2018 OCT	<u>Requested</u> New Price	2018 OCT	<u>Requested</u> Increase	2019 OCT	<u>Requested</u> New Price	2019 OCT
T10 3/4 SL BRZ 302 R900I PIT	\$213.76	5.00%		\$224.45		\$	25.00	\$249.45	
T10 1 BRZ 302 R900I PIT USG	\$254.67	5.00%		\$267.40		\$	25.00	\$292.40	
T10 1-1/2 OVAL R900I PIT USG	\$376.65	5.00%		\$395.48		\$	25.00	\$420.48	
T10 2 OVAL R900I PIT USG MTR	\$499.70	5.00%		\$524.69		\$	25.00	\$549.69	
<b>TURBINE METERS W/STRAINER</b>									
ET4HRWG1S619 1.5 HPTURB	\$869.92	5.00%		\$913.42		\$	25.00	\$938.42	
ET4ARWG1S619 2 HP TURB	\$869.92	5.00%		\$913.42		\$	25.00	\$938.42	
ET4BRWG1S619 3 HP TURB	\$1,500.15	5.00%		\$1,575.16		\$	25.00	\$1600.16	
ET4CRWG1S619 4 HP TURB	\$2,115.40	5.00%		\$2,221.17		\$	25.00	\$2246.17	
ET4DRWG1S619 6 HP TURB	\$3,634.80	5.00%		\$3,816.54		\$	25.00	\$3841.54	
ET4ERWG1S619 8 HP TURB	\$5,485.90	5.00%		\$5,760.20		\$	25.00	\$5785.20	
<b>COMPOUND WATER METERS W/STRAINER</b>									
EC3BRWG1 2 T/F MTR (INTERNAL STRAINER)	\$1,416.70	5.00%		\$1,487.54		\$	50.00	\$1,537.54	
EC3BRWG1S619 3 T/F MTR	\$2,342.25	5.00%		\$2,459.36		\$	50.00	\$2,509.36	
EC3CRWG1S619 4 T/F MTR	\$3,064.50	5.00%		\$3,217.73		\$	50.00	\$3,267.73	
EC3DRWG1S619 6 T/F MTR	\$4,947.70	5.00%		\$5,195.09		\$	50.00	\$5,245.09	
EC3ERWG1S619 6X8 T/F	\$7,221.45	5.00%		\$7,582.52		\$	50.00	\$7,632.52	
<b>FH METERS</b>									
NEP F.HYD MTR GOODYEAR RECLAIM	\$1,020.00	5.00%		\$1,071.00		\$	25.00	\$1,096.00	
NEP FIRE HYO MTR GOODYEAR ENDS	\$1,020.00	5.00%		\$1,071.00		\$	25.00	\$1,096.00	

### Additional Pciog

#### Product

<b>MRX</b> 920 Mobile Collector	\$6,500.00	5.00%		\$6,825.00		\$	-	\$6,825.00	
Trimble Nomad Complete 9008	\$2,625.00	5.00%		\$2,756.25		\$	-	\$2,756.25	
Trimble Nomad Complete 900LE	\$4,125.00	5.00%		\$4,331.25		\$	-	\$4,331.25	
Trimble Ranger Complete	\$8,250.00	5.00%		\$8,662.50		Discontinued		DISCONTINUED	
Bluetooth Belt Clip	\$2,180.00	5.00%		\$2,289.00		\$	-	\$2,289.00	
Training (3 day on site)	\$2,000.00	5.00%		\$2,100.00		\$	-	\$2,100.00	

R900 Pit Unit	\$100.00	5.00%	\$105.00	\$ 25.00	\$130.00
R900i Register (all sizes)	\$157.50	5.00%	\$165.38	\$ 25.00	\$190.38
Meter Installation 5/8 - 1" w Data transfer	\$37.00	25.00%	\$46.25	\$ (4.25)	\$42.00
Meter testing (2" and larger)	\$285.00	25.00%	\$356.25	\$ -	\$356.25
Labor per hour	\$85.00	25.00%	\$106.25	\$ (6.25)	\$100.00
Discount off Neptune List price	25%		25%		25%