RFP: Round 14

WaterStart requests proposals from water technology companies to solve immediate demands for innovation by our members. If you are a company that is ready to prove their ability to scale-up by solving one of the priorities below, please apply!

Drinking Water

- *Evaluation of bulk water delivery metering to distribution agencies.*
- *In-situ repair/refurbishment of water distribution mains.*
- *Predictive failure analysis for a water distribution system*
- *Autonomous technologies for the evaluation of water distribution mains.*
- *Technologies that limit non-revenue water (NRW) losses.*

Wastewater

- *In-situ repair/refurbishment of sewer collection mains.*
- *Autonomous technologies for the evaluation of sewerage mains.*
- *Automated sewer collection system notifications for infiltration and/or blockage and/or overflow*
- *Predictive failure information for a sewer collection system.*

Agriculture and Mining

- *Automated high volume river diversion gate systems (field equipment/hardware) to supply gravity irrigation*
- *Automated gravity irrigation systems (field equipment/hardware) for managing unlined canals*
- *Centralized software system to optimize gravity irrigation across agricultural operations capable of tracking water delivery efficiencies and water use reporting*

Deadline for submission: **Jan. 17, 2020** Evaluations completed by: **Feb. 27, 2020**

Summary and Background

WaterStart is an innovation accelerator for utilities and large consumers dedicated to the implementation of technology that result in more, safer, cheaper water. We are in search of technology providers with novel solutions to specific priorities ready to be proven through large-scale pilots. If you're a tech company ready to scale-up by working with globally recognized customers with opportunities to enter new markets by solving imminent challenges in water, please apply.

The priorities listed above represent the collective needs among WaterStart members committed to installing innovative water technology solutions. Proposals should address one or more of these specific priorities. Grants are awarded on a competitive basis and range from $25,000 to $150,000.

Proposal Guidelines

To view more details related to the above priority descriptions and submit a proposal to this RFP, an account with WaterStart's online knowledge sharing platform, Channels for Innovation must be created. To create an account, visit WaterStart's website at https://waterstart.com/ and follow these steps:

1. In the upper-right corner you will click on "Become a Member/Login"
2. Click "Sign Up" and then select "I Am a Tech Provider"
3. Fill in basic email and company information to create an account

Once the account is created, access to the Channels for Innovation platform will be available. Through this platform, technology companies will be able to see and reply to all RFP's that WaterStart releases.

To respond to this RFP continue to follow these steps:

1. Click on "RFPs" and find the open RFP that you are responding to (Round 13)
2. Click on "Learn More"
3. Click on "Submit RFP"
4. Answer the 10 questions and upload any supplemental information. Supplemental information must not exceed 5 pages in length.
5. Click on either "Save Draft" to complete later or "Submit RFP" to submit your response

Evaluation Criteria

Criteria for judging applications will be based on:

1. Degree of technology's alignment with listed priority
2. Stage of technology readiness
3. Degree of shared risk
4. Economic development (economic return on investment) - examples include: the number of jobs created, licensing agreements, local manufacturing sources, local "office" established

Drinking-Water

1. *Evaluation of bulk water delivery metering to **distribution** agencies.*

Description:
Large water meters are used to measure the bulk supply of treated water. Accuracy through both physical testing and metering analytics is therefore critical for reporting and evaluation purposes for our members. Other approaches may also be considered.

2. *In-situ repair/refurbishment of **water distribution mains**.*

Description:
Our members are seeking the least disruptive solutions for the repair and/or relining of pipes. In particular, technologies that provide soft liner renewals for pressure mains greater than 450ml and pressures over 120m.

3. *Predictive failure analysis for a **water distribution system***

Description
Our members are seeking technologies/software which utilize various types of physical, analytical and other surveillance data to provide predictive failure information for a water distribution system with the ability to predict customer impact as part of a wider asset management program. Network reliability is currently measured by the number and length of outages, however, this is typically done at the network or DMA level. Our members are seeking a solution that understands the reliability of every single customer connection in the water distribution network to better understand performance in the eyes of the customer.

4. *Autonomous technologies for the evaluation of **water distribution mains**.*

Description:
Our members are seeking autonomous/robotic devices (eg. Untethered drones, AUVs) for infrastructure and condition assessment using tools such as images, video, lidar, 3D models, GIS shapefiles. The current challenge for our members is finding a single platform that can consume this data and consolidate to a single view of the asset.

5. *Technologies that limit non-revenue water (NRW) losses.*

Description:
Our members are seeking technologies that help to reduce the loss of non-revenue water (NRW). These applications may include predictive failure analysis, distribution pressure management, as well as solutions that help to quickly and effectively locate and repair pipe leaks internally without excavation on trunk mains (150mm-600mm diameter).

Waste Water

6. *In-situ repair/refurbishment of **sewer collection mains**.*

Description:
Our members are seeking the least disruptive solutions for the repair and/or relining of pipes. In particular, technologies that provide soft liner renewals for pressure mains greater than 450ml and pressures over 120m.

7. *Autonomous technologies for the evaluation of **sewerage mains**.*

Description:

Our members are seeking autonomous/robotic devices (eg. Untethered drones, AUVs) for infrastructure and condition assessment using tools such as images, video, lidar, 3D models, GIS shapefiles. The current challenge for our members is finding a single platform that can consume this data and consolidate to a single view of the asset.

8. *Automated sewer collection system notifications for infiltration and/or blockage and/or overflow*

Description:
Sewer networks have flow meters installed throughout the network to measure flows in the network and also at the inlet works to the treatment plant. The general approach to quantification of infiltration has been to install additional flow meters or CCTV. Our members are seeking a solution that automatically learns the behavior of sewer flows (through rainfall or king tides close to the coast) and pinpoints areas with a high-probability of infiltration to better target the CCTV using existing available data sources and/or complementing with IOT devices). This solution could also incorporate additional sensors at the inlet works to test the concentration of water in the wastewater flows.

9. *Predictive failure information for a **sewer collection system.***

Description:
Our members are seeking technologies/software which utilizes various types of physical, analytical and other surveillance data to provide predictive failure information for a water sewerage system with the ability to predict customer impact as part of a wider asset management program.

Agriculture and Mining

10. Automated high volume river diversion gate systems (field equipment/hardware) to supply gravity irrigation

Description:
A WaterStart member has over 2,000 acres being flood irrigated from diversions from a major river system in northern Nevada. The main delivery canal delivers water across the 2,000-plus acres through 35-miles of irrigation ditches. Viable solutions will provide an automated or remote control of diversion water, track flow rates, improve operational safety, integrate with a centralized gravity drive to irrigation software system

11. Automated gravity irrigation systems (field equipment/hardware) for managing unlined canals

Description:
A WaterStart member currently manages 35-miles of gravity fed ditches. The manually operated system is unlined with few irrigation control gates. This member seeks to modernize the system

to improve employee safety and maximize surface irrigation efficiency throughout it's agricultural operations.

12. Centralized software system to optimize gravity irrigation across agricultural operations capable of tracking water delivery efficiencies and water use reporting

Description:
A WaterStart member is looking for a centralized, digital operational system able to optimize the planning, control and reporting of gravity fed irrigation water delivery and crop production. The system will need to offer analytics enabling better decision making to improve water efficiency, operation safety and reliability. The ideal system will be infrastructure agnostic and compatible with pressurized control systems as well.