MEETING DATE: 7/13/22 **ITEM:**

AGENDA ITEM SUMMARY

APPROVE CONTRACT WITH 120 WATER FOR LEAD AND COPPER RULE REVISIONS SERVICES

Background Summary:

In 2020 the EPA overhauled the 1991 Lead and Copper Rule and the final Lead and Copper Rule Revisions (LCRR) went into effect on January 15, 2021.

Here are eight things all water systems must complete before October 16, 2024 to meet the new requirements:

1. Develop an inventory of all service lines, including house-side and street-side materials, and make it publicly available.

How do we do this? Continue to build on our house-side inventory that we have gathered over the last six years. As of 7/2022 our inventory consists of nearly 1800 out of 3355 house-side services. We average 300 water meter change outs per year. At this rate, we will only have about 2400/3355 done. And this would only account for the house side of the service line.

120Water will compile all current data and use a predictive modeling software that will take into account what we know (inventory, capital projects, and home age) and give us a likelihood that the service line is lead or not based on best available data.

2. Verify as many service lines of unknown material as possible because unknown materials are classified as lead service lines (LSLs) unless evidence proves otherwise.

How do we do this? Physically verify in the field. We will need to use the vac truck to vac down and verify up to 400 service connections. This along with home age will help to verify the model. We could also

3. Prepare a lead service line replacement plan.

How do we do this? 120water will build a lead service line replacement plan in line with EPA's LCRR requirements. This will include a summary of all service lines, cost estimates for replacements, replacement procedures, funding sources and strategies, and other general customer outreach information.

4. Revise sampling protocols and communications for 5th liter sampling if there are LSLs in your system.

How do we do this? 120water will review the lead service sampling plan and provide letter templates for customer communication.

5. Revise your sampling pool location to align with the new sampling tiers.

How do we do this? 120water will review the lead service line inventory and help select updated sampling sites based on updated inventory and best available data.

6. Prepare a sampling plan and communications for lead testing in schools and in home daycares

How do we do this? We have started to compile a list of licensed in-home daycares to sample from. We will be required to sample 20% of in-home daycares and schools every year.

7. Review your corrosion control treatment by evaluating 5th liter LSL samples and re-optimize if needed.

How do we do this? This would only be required to be done if our lead levels are above the trigger level (10 parts/billion). Our highest lead level since 1998 was 5 ppb in 2007. Sampling requirements will change to the 5th liter sample instead of the 1st liter of water after sitting with no use for at least 6 hours. This change alone is expected to increase test results.

8. Prepare your public notifications and sample notifications and have them ready to meet the quick response times required.

How do we do this? 120Water will provide streamlined communications by providing templates for all required.

After the project is complete, the GIS data will be our property and we will be able to import it into our GIS program. This will be a working inventory and we continue to update and maintain all data after the project is complete. This is a two-year contract for $18,000 each year. The project is projected to take 2 years and will be completed by the 2024 deadline. We did budget to complete this entire project in FY23.

Scope of Service for Charles City

The Scope of this agreement will cover Steps 1-5 of the above Methodology, and the Deliverable will serve as the baseline for individualized Verification Guidance (that will be the kickoff of Phase 2). We have included detailed information on Steps 1-5 (as well as Steps 6-8 for informational purposes), along with a general timetable to complete.

Step 1: Program Start and Customer Alignment (1-2 weeks) | The purpose of this program stage is for the 120Water and Charles City to initiate the lead service line inventory (LSLI) program and align on program expectations

- Customer Kick-Off Meeting: the 120Water team will host an introductory meeting with the central Charles City team to establish the cross-functional Program Team and confirm roles and responsibilities. The session will also establish the program approach including success metrics and project timelines, and the cadence of program reviews, client updates, and any additional Charles City Goals and expectations
- This meeting will also result in development of an execution strategy to accomplish Steps 2-5. For all PWS, the expectation is that the central Charles City staff will assist the 120Water team in identifying and reaching out the proper contacts at each PWS, as well as providing back-up should 120Water need help in moving these projects along (e.g. getting responses in a timely manner, etc).

Step 2: Data Investigation and Submission (4-6 weeks) | The purpose of this program stage is for the 120Water team to identify, review, document, and collaboratively understand the existing data source(s) and systems.

- Data Investigation Worksheet: The 120Water team will create a Data Guide to be delivered to each individual PWS identifying potential sources of data the 120Water team can leverage to build out a preliminary lead service line inventory. Common data sources include:
    - GIS records
    - County tax parcel information
    - Billing system records
    - Work order system records
    - Paper reports, tap cards, as-builts, etc.
    - Recent capital projects
- Data Submission: 120Water will review all submitted data sources. Once all data is submitted, the 120Water team will determine the best analysis approach to bring the data together into a central data set across all PWS that reflects all service line locations and associated attributes.
    - Esri Partnership Solution with SAM: If Charles City wants the ability to visualize data in ArcGIS, 120Water will set up a specific environment for data submission. 120Water will update the environment with preliminary inventory findings and continued inventory updates from the 120Water platform, as Charles City progresses through their lead service line inventory program and PWS SL information is refined.

- For PWS serving under 100 connections, the expectation is that the central Charles City Team will take the lead on any delivering the data document, following up with the appropriate contact(s), and 1:1 conversations (if necessary). The 120Water team will provide centralized training to Charles City so Charles City is prepared for these discussions.

Step 3: Data Analysis (4-8 weeks) | The purpose of this program stage is to combine all submitted data to develop a preliminary, location-based lead service line inventory, by PWS, that includes EPA complaint service line material categorizations for all identified service lines. The aim is to use existing client data to identify locations, and use the data to rule out potential sources of lead.

- Initiate Analysis: The 120Water data analysis team will conduct a thorough review of the submitted data, to ensure all data fields are understood and data integrity is maintained.
- Build Records-Based Inventory: The 120Water data analysis team will clean and combine all appropriate data sources into a service line inventory dataset. Each location will be associated with the correct PWS ID. The final dataset in this stage will include service line locations and material type categorizations for each identified service line in the distribution network, as well as all associated location and service line attributes.
- The 120Water data analysis team will match up Charles City address data with 120Water-owned tax parcel data to supplement and/or replace any publicly-available tax parcel data surfaced in Step 2.
- Note: Should a PWS within Charles City have records of lead service lines within the system, that PWS may then choose to use a data science driven selection approach to identify a statistically-driven selection of locations *(less than 400 service connections)* for physical field verification (cost not currently included in the Quote). 120Water will use the verification results as the basis for lead service line probability predictions. This approach may require additional investment from a Charles Citychosen (or 120Water Service Partner) field services firm to execute potholing/hydrovacing/home inspections.

Step 4: Preliminary Findings and Software Alignment (2-4 weeks) | The purpose of this program stage is to deliver the results of the preliminary inventory, and gather any additional feedback from Charles City to support inventory development—both in terms of reviewing the inventory itself and ensuring the 120Water platform sets Charles Cityup for success in long-term inventory management.

- Preliminary Findings Session: The 120Water team will meet with Charles City to deliver the preliminary inventory findings. The session will cover a discussion of service line locations, material type associations, the number of service lines the 120Water team was able to categorize as non-lead, geographic trends, etc.
    - Data Verification: Using the findings the 120Water team will work with Charles City to determine if additional data is required to inform the inventory.
    - Software Alignment: During the session, the 120Water team will propose the methodology for customizing the 120Water platform to meet Greenville's needs (e.g., customization data fields, location and service line identifiers, prioritization set-up, etc.).

- Additional Data Incorporation: If Charles City submits additional data to be incorporated into the lead service line inventory, 120Water will process the data and integrate the new information into the preliminary inventory.

Step 5: Software Import and Training (2-4 weeks) | The purpose of this program stage is to introduce Charles City to the data in the software, and train Charles Cityon how best to leverage the software for continued inventory management.

- Software Configuration: Setup and configure 120Water platform software account and setup user(s) account(s)
- Inventory Software Import: Import the prepared data into the 120Water software
    - Note: If any PWS is selected to use the Predictive Model, the 120Water data analysis team will run the model to assess service lines that have the highest probability of containing lead. The preliminary inventory will need to contain sufficient data on SL locations in order to run the model. If the preliminary inventory does not contain the necessary data, 120Water will determine the best path to getting enough observations with each individual PWS.
- Software Training: the 120Water team will train Corix) on 120Water software platform using aggregate PWS data.. During this session, the 120Water team and Charles Citywill discuss current data systems and processes and provide guidance on leveraging the 120Water platform for long-term LSL management
- AGOL Training (if necessary): the 120Water team will also train Charles City user(s) on use of the PWS specific 120Water-AGOL environment.

Begin Phase 2

Step 6: Lead Service Line Inventory Verification Strategy (1-2 Weeks) | The purpose of this program stage is to strategize with each PWS on how best to proceed with verifying the material types of service lines that are categorized as Unknown in the lead service line inventory.

- Establish the Prioritization Team: the 120Water team will meet with the client to determine the key decision-maker who will own the prioritization and scheduling
- Hold Prioritization and Verification Workshop: The 120Water team and the Prioritization Team will work through inventory findings, prioritization metrics, geographic considerations, neighborhood information, and other details to define the method for organizing ongoing inventory efforts. In addition, both teams will discuss and strategize verification methods that are best suited to support inventory efforts. Additional 120Water offerings include:
    - Customer LSLI Postcard or Letter Survey Campaigns
    - Lead Check Swab Kits + Customer LSLI Postcard Survey Campaigns
    - Physical Field Validation Checks
    - Sampling
- Initiate and Continue Inventory Efforts: each PWS will continue leveraging 120Water software to keep the LSLI updated.
- Continuous Inventory Review: Review the LSLI for compliance throughout the inventory process to ensure the lead service line inventory meets state and federal requirements

Step 7: Lead Service Line Inventory Verification (varies) | The purpose of this program stage is to execute on the strategies decided upon during the Verification Strategy phase. Each Charles CityPWS team will have the option to use 120Water or 120Water Partner services to execute the chosen Verification Strategies, or perform those methods themselves. In either case the 120Water Platform will serve as the database of record for all Service Line material updates, and the Platform will deliver that data back to each PWS's GIS (if necessary) via the 120Water Connector for ArcGIS.

Step 8: Replacement Planning and Preparation (4-8 Weeks) | The purpose of this program stage is to prepare - as necessary - Charles Cityteam for any replacement efforts that may need to be initiated. The 120Water team, potentially with support from its subcontractors, will craft a lead service line replacement plan, should any individual system either encounter lead service lines in the field, or still have service lines that are categorized as Unknown in the lead service line inventory by the EPA compliance date, October 16, 2024.

- Replacement Planning Workshop: to define the locations, processes, staff, pre and post-replacement approach
- Build a Lead Service Line Replacement (LSLR) Plan: 120Water will work with Charles Cityto draft an LSLR plan in line with EPA LCRR requirements and balance the plan with Corix's needs. The LSLR Plan will include the following at a minimum:
    - Summary of LSLI Status
    - Cost Estimate for LSLR
    - Legal Considerations
    - LSLR Procedures
    - General Customer Outreach & Communication Plan
    - Flushing Plans
    - Funding Strategies
- Initiate and Continue Replacement Efforts: Ecah PWS will continue leveraging 120Water software to document lead service line replacements and keep the LSLI updated.
- Continuous Replacement Review: Review LSLI for compliance and update Lead Service Line Replacement Plan

120Water

PO Box 604
Zionsville, IN 46077
www.120water.com

Quote 5/11/2022

ORDER FORM

Customer Information

Customer Name: Charles City, IA
Contract Term: 24 Months
Contract Start Date: Date of Signature
Order Form Valid Until: 6/30/2022

Billing Information

Billing Contact:
Street Address:
City: State: Zip Code:
Email Address:

SKU	Products & Services	Qnty
S-EWS-P01	120Water Platform: Pro Edition	1
SVC-RS-AST-20	Program Consulting Assist	2 Blocks
	Annual Software and Services Cost	$18,000

SKU	Products & Services	Qnty
SVC-OS-IMP	Implementation	1
	One Time Cost	$1,500

Billing and Payment Terms:
Fees are billed annually on the Start Date above and are due net 30 days from the invoice date.

Additional Notes:
120Water will commence implementation on or before 5 business days from signature.

120Water

This Order Form, together with the Master Services Agreement available at https://120water.com/master-services-agreement/ (the "**MSA**"), shall become a legally binding contract upon the earlier of (a) the date both parties execute the Order Form or (b) the date Customer initially began using the Services. Any capitalized word not otherwise defined in this Order Form shall have the same meaning as set forth in the MSA.

120Water may reject this Order Form if: (1) the signatory below does not have the authority to bind Customer to this Order Form, (2) changes have been made to this Order Form (other than completion of the purchase order information and signature block), or (3) the requested purchase order information or signature is incomplete or does not match our records or the rest of this Order Form. Subscriptions are non-cancelable before their end of the Term.

IN WITNESS WHEREOF, the parties have caused this Order Form to be executed by their duly authorized representatives.

Customer:			120Water	
Signature			Signature	
Name:			Name:	
Title:			Title:	
Date:			Date:	

120WATER LCRR SOLUTIONS FOR WATER SYSTEMS

	LCRR Requirement	120Water Solution
Lead Service Line Inventory	• Utilities must compile and manage an inventory of public and private portions of all service lines within their service area by 2024. • Submission recurrence is now based on a system's monitoring compliance schedule and the 1st inventory must be submitted within 3 years (or prove they don't have any LSLs). • Inventories must be made publicly available and each customer serviced by an LSL or a line with an unknown material must be notified annually.	• Our team will help you **develop a preliminary inventory**, advise on verification methods, manage public and private side verification and house all data in a centralized location for easy sharing among teams. • Our Lead Service Line Probability Finder helps you accurately identify which service lines of unknown material are likely to be composed of lead **using predictive modeling**. • Avoid expensive digs based on unreliable data; instead, prioritize and track inventory work, visualize LSLs and centralize all key data to utilize internally and **share on our Public Transparency Dashboard**.
Water Sampling	• A 1st- and 5th-liter draw and analysis for any home served by an LSL is now required. • The Tier List will be based on the LSL inventory and all Tier 1 samples must be collected from any home served by an LSL. • A new "find and fix" provision requires a second look at homes with high lead levels.	• **EPA approved kits** delivered to correct addresses with instructions and our team follows up with phone support. • Our platform centralizes your data and allows you to consolidate information and easily **segment tier lists based on your inventory**. • Sample results and tier list data are automatically uploaded to our software, where **corrective action can be documented and tracked**. All results can be accessed and exported at any time.
Testing for Schools and Childcare Facilities	• Utilities must sample 20% of elementary schools and 20% of all childcare facilities in the service area each year. • Secondary school sampling must also be provided when requested. • Results and public education must be provided to each sampled facility, primary agency, and health department.	• 120Water has been supporting lead and copper sampling in facilities for **over 4 years**. • **Our automated water sample kits** save resources and make the sampling process more efficient, while our services team can help you put together a sampling plan. • Our team trains school staff to gather samples, automates the delivery of bottles from facility to lab and automatically updates your dashboard so you can **easily trigger communications to parents and stakeholders**.
Public Communication	• Any customer with an individual lead sample result > 15 µg/L must be notified within 3 days. • After all monitoring round samples are in, consumers must be notified within 24 hours if the 90th percentile levels are > 15 ppb. • LSLI info must be made public and included in the CCR. • Systems must provide public education materials when doing mandatory LSLR.	• Easily **send results letters to customers**, using a triggered and templated approach. • Since we store address and contact info for every customer, we can **support notification of all customers within 24 hours**. • Our Public Transparency Dashboard can **automatically post results** for centralized access. • Streamlined resident communications enable **timely and effective customer-side LSL verification methods**, permissions to dig, and resident notifications.