Initial

Long-Term Lead Service Line Replacement Plan

Prepared pursuant to the Illinois Lead Service Line and Replacement Act

April 15, 2024

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Table of Contents

List of Tables and Figures

Appendix

1. Name and identification number of the Community Water Supply

The Community Water Supply (CWS) is named: DECATUR.

The identification number of the CWS is: IL1150150

2. Total number of service lines connected to the distribution system:

Based on the inventory submitted to IEPA in 2023, which is primarily based on tap cards and maintenance records, there are currently 30,735 service lines in the system.

3. Suspected lead service lines connected to the distribution system

In Decatur, only a few service lines have ever been constructed of all lead material, and all known all-lead service lines have already been removed. However, lead goosenecks and galvanized pipes were commonly used for water service lines installed prior to 1940 and are still prevalent in the system.

The primary driver for the project is to remove galvanized water service lines which are or were downstream of lead goosenecks. Under US EPA guidelines (US EPA, 2022), these are termed galvanized requiring replacement (GRR) service lines.

In the inventory submitted to IEPA in 2023, which was primarily based on tap cards and maintenance records, there were 6,883 suspected GRR service lines. Another 22 service lines had unknown material, which are considered as suspected lead service lines under Illinois law (Illinois Environmental Protection Agency, 2022). The estimated total number of service lines to replaced was then 6,905.

Since that time, the City initiated significant efforts to improve the accuracy of the inventory. Given that the primary issue is galvanized service lines requiring replacement, daylighting was selected as the technology of choice. Hydro-vacuum excavation can cost-effectively expose the water service lines on either side of the curb box. A quick magnet test can determine whether the service lines are galvanized or not. If galvanized material is present at the curb box, that service line is confirmed as GRR. If galvanized material is not present at the curb box, further testing is required (Hensley, Bosscher, Trantafyllidou, & Lytle, 2021), because it is possible that only a short section of service line was replaced.

A daylighting contract is currently underway. A total of 627 water service lines are being investigated to determine the actual material using hydro-vacuum excavation. A $50,000 grant from Round 3 of the Illinois Lead Service Line Inventory Program was applied to this contract. An additional $50,000 grant from Round 4 of the Lead Service Line Inventory program has been requested. If received, it will be used to further improve the accuracy of the inventory.

Future updates to the Lead Service Line Replacement Plan will reflect the updated, more accurate inventory.

4. Known lead service lines connected to the distribution system

There are no known lead service lines connected to the distribution system. Only a few lead service lines have ever been uncovered and they have all been removed. The last service line made of lead material was uncovered approximately 12 years ago (Randy Miller, personal communication.)

5. Lead service lines replacement history 2020 - 2023

The recent replacement history for GRR service lines is as shown in Table 1

TABLE 1 GRR REPLACEMENT HISTORY, 2020 - 2023

Year	**Number of GRR Replaced**
2020	103
2021	4
2022	0
2023	24
Total	131

The above analysis excludes service lines that were removed due to demolitions. There were 156 demolitions in the urban core of Decatur between 2019 and the end of 2022.

In 2023, the City Council adopted a cost-sharing program for replacement of GRR service lines, and this has incentivized a number of new replacements. The Public Works Department promoted this program by meeting with local plumbers in July 2023 (Figure 2). The response was very positive, which lead to 24 water service line replacements.

6. Proposed lead service line replacement schedule

The program has been planned to replace all GRR service lines on a priority basis. The first priority will be the high-risk facilities, as required by the Illinois Lead Service Line

Replacement and Notification Act. These will be replaced during the first year of the large-scale replacement program. If requested SRF financing is received, this could be as early as 2025. If not, the program will start in 2027.

For the rest of the program, priorities will be established to replace GRR lines by census tract, based on the risk-based prioritization established by the State of Illinois. The 2023 estimate of GRR in the inventory is 6,883. The 22 GRR service lines at high-risk facilities will be replaced in the first year of the program, The remaining 6,861 GRR will be replaced over a period of 20 years at 343 per year starting in 2027. See Table 2. Data and prioritization are preliminary.

TABLE 2 SEQUENCE OF GRR REPLACEMENT IN LOW INCOME CENSUS TRACTS

Census Tract	Customer-owned GRR Service Lines	City-owned GRR Service Lines	Estimated Priority Score	Year Replacement Completed
5.01	65	43	400	2027
6	511	321	375	2029
3	813	646	370	2031
9	488	408	355	2032
31	280	193	340	2033
5.02	361	228	335	2034
10	9	8	330	2034
21	124	108	305	2034
20.02	821	428	305	2037
20.01	13	7	300	2038
2	824	570	285	2039
19	527	151	280	2041
11	214	178	240	2041
Others	1811	1052	n/a	2046
Total	6861	4341		

7. Estimated costs

The cost of the full replacement lead service line replacement program is currently estimated at $73,218,682 in 2024 dollars.

The basis of this cost estimate is the detailed cost estimate prepared for the City of Decatur Galvanized Service Line Replacement Program Five-Year Project Plan, which is provided in Appendix A to this document. The Five-Year Project Plan has been submitted to the IEPA and nominated for State Revolving Fund (SRF) financing. The Plan provides a detailed cost estimate for replacement of 1,899 water service lines equal to $20,136,463, or $10,604 for each service line. Correspondingly, the estimated costs for the estimated 6,905 service lines to be replaced in the system is $73,218,682.

Actual costs for the program are expected to be much lower than the current estimate, however. The results to date (4/4/24) of the current daylighting contract indicate that 60% of the suspected GRR service lines may have already been replaced. The 2025 update to this Lead Service Line Replacement Program will reflect the updated inventory and more accurate estimated costs.

8. Financing and Affordability Options

Financial planning for the lead service line replacement program is likewise a work in progress, as total program costs are likely to be much less than currently estimated. Potential revenues are also unknown. The City of Decatur has nominated its GRR Five-Year Replacement Plan (Appendix A) for $20,136,463 in SRF financing and is awaiting the release of the Intended Use Plan later in 2024.

Nonetheless, recognizing that there are likely to be significant costs to the ratepayers associated with the lead service line replacement program, the City requested and received authorization from the USEPA Technical Assistance program for a financial analysis of the water system. Thanks to the technical assistance grant, the US Water Alliance is now arranging for a consultant to provide a cost-of-service analysis, a rate study and recommendations as to a new water affordability program.

The City of Decatur staff appreciates the importance of water affordability programs. We have reviewed a number of recent publications on this topic (US Department of Health and Human Services, Office of Community Services, February 2024; US Water Alliance, Stantec, 2022; American Water Works Association, 2017) and will ask the US Water Alliance to consider affordability options such as income-eligible discounts, credits, lifeline programs and/or plumbing repairs.

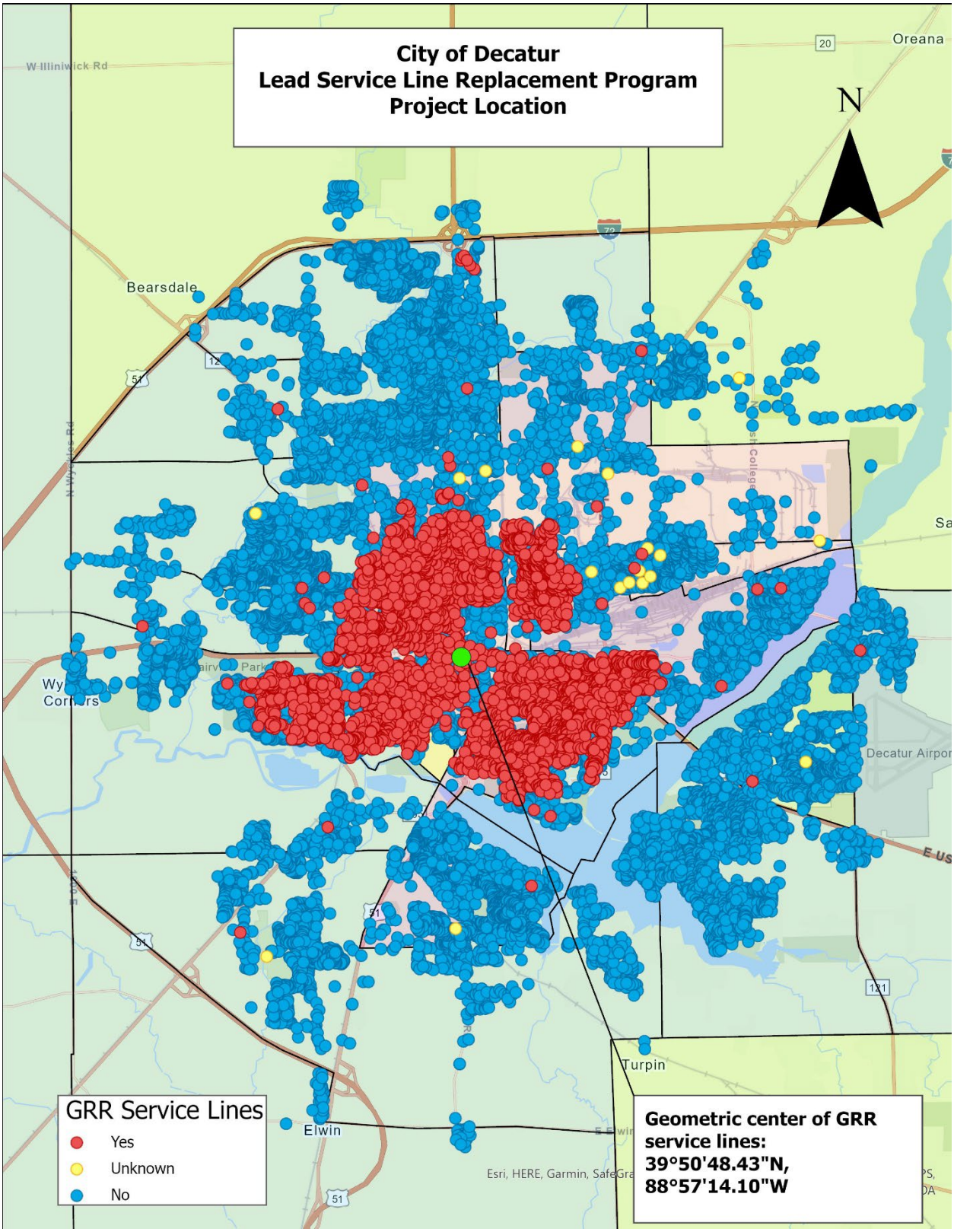


FIGURE 1 GRR REPLACEMENT PROJECT LOCATION

Addressing environmental justice is not a new idea to the City of Decatur. The City and its partners are actively involved in neighborhood revitalization and utility assistance programs. For example, the neighborhood revitalization staff is currently working with the Community Development Block Grant authorities on funding to replace GRR service lines in target neighborhoods as part of a housing rehabilitation program (Kirsten Born, personal communication).

The City of Decatur is well aware of the impacts that utility debt and shut-offs can have on low-income ratepayers (US Department of Health and Human Services, Office of Community Services, February 2024). The City, as well as its US Water Alliance colleagues, are following the issue and will include best practices in the future water affordability program.

In January 2023, the City Council provided an option for structuring payments between the water utility and its customers. The program provides a 50% reimbursement for residential and commercial customers to replace their service lines, up to specified dollar limits. The program has proved to be quite popular, with 24 customer contracts in 2023 and 16 customer contracts already in 2024 as of 4/4/2024.

9. High-risk facilities

The Lead Service Line Inventory indicates that there are 22 suspected GRR service lines at high-risk facilities. These will be replaced during the first year of the program.

10. Lead service line location and replacement sequence.

The geometric center of the GRR replacement program is at 39°50'48.43"N, 88°57'14.10"W. See Figure 1

The sequence of replacement is as shown on Table 2.

11. Public outreach

Public information is an essential part of the program. A new lead service line coordinator position is being budgeted to start in 2024; this position will be key to managing public information, working with individual property owners, obtaining consent, and updating the official lead service line inventory.

The City's public information officer has created a web page (Lead Elimination & Water Service Line Replacement Program - City of Decatur, IL (decaturil.gov) dedicated to lead service line awareness. This is being used to provide background information on the

issues as well as keeping the public informed about project progress. Best practices (American Water Works Association, 2022) have been used, and we hope to advanced those practices. There has actually been quite a bit of public interest in the lead service line replacement program as a result of both national media and the City's own lead service line daylighting program (Moore, 2024). The City of Decatur's proactive approach appears to be well-received by the public.

GIS mapping will assist the public in finding information about their specific properties of concern. A web map has been developed and will be published on the City's web page in October 2024. It is currently being updated with the results of the daylighting investigation. In the meantime, the public can access the 2024 lead service line inventory on the IEPA website.

When the large-scale projects are undertaken to replace GRR service lines, they will be actively coordinated with ongoing neighborhood revitalization efforts. The City of Decatur has been actively pursuing neighborhood revitalization in the same geographic area as the GRR service line replacement program. The City will take a similar approach to public outreach as was recently done in Benton Harbor, MI (Betanzo, Pinkney, & Land, September 2023). As in Benton Harbor, outreach and coordination with neighborhood groups will facilitate customer communication and reduce the number of refusals to lead service line replacement. These groups could also be the key to facilitating tenant/property owner contact in the case of absentee landlords.

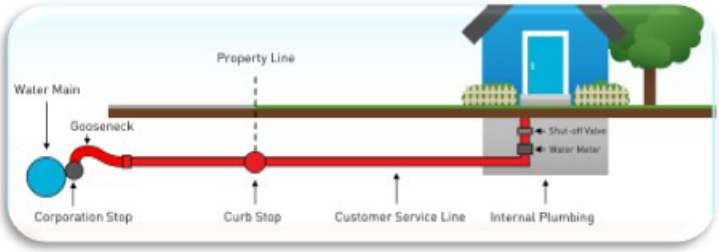
12. Workforce development to encourage hiring diversity.

The City of Decatur has shown a longstanding commitment to workforce development. In 2020, the City Council adopted Ordinance 2020-124, which established minority participation requirements for all public works purchasing and contracting opportunities.

The City of Decatur has also engaged with Richland Community College's successful pre-apprenticeship program regarding workforce development. The program teaches life skills and basic trade skills to those seeking a future in the construction trades (William Ditty, personal communication). City staff made the Richland staff aware of the emerging demand for plumbing trades related to the lead service line replacement program.

The City of Decatur also held a workshop with plumbers on September 28, 2023 (Figure 2). The purpose of the workshop was to make them aware of the business opportunity and encourage them to work with property owners.

Calling all plumbers!



The City of Decatur invites you to learn about our

LEAD SERVICE LINE REPLACEMENT PROGRAM.

*** Up to 300 services to be replaced every year! ***

Thursday, September 28th, 2023, 11:00 am – 12:00 pm
Civic Center First Floor Meeting Rooms 100 and 101
1 Gary K. Anderson Plaza

Optional Zoom link: https://tinyurl.com/2xz8v7fb

What's it all about?

- A new state law requires all water service lines that were ever downstream of any lead (Pb) material to be replaced.
- In the City of Decatur, there are more than 6,000 suspected lead service lines.
- The City will provide a 50% cost share for the customer-owned service line.
- Annual service line replacement projects will begin in 2024.
- It's a great opportunity for small/minority businesses!
- We want to make plumbers aware and hear your ideas.
- We'll also discuss other projects and touch base on permit and license issues.

Questions? Contact Robert Weil, Assistant City Engineer at 217-424-2747 or rweil@decaturil.gov

FIGURE 2 INVITATION TO MEETING WITH PLUMBERS

The announcement was especially targeted to minority and small businesses. There was a significant increase in the participation in the cost-sharing program as a result.

13. Procedure for full lead service line replacement

Replacement of the GRR city-owned service lines will consist of excavation, removal of the lead gooseneck, re-tapping the water main, and installing a new service line and corp stop by a general contractor.

The construction contract will be structured to have licensed and bonded plumbers, acting as subcontractors to the GC, replace the GRR customer-owned service lines. This approach will provide opportunities for minority business enterprises (MBEs) and small business owners.

Trenchless bore and jack technology will be used for both the city-owned and customer-owned GRR service lines.

14. Procedure for informing affected customers of lead exposure risk

The City of Decatur has prepared a notice (Appendix B) to inform affected customers of lead exposure risk and steps that can be taken to reduce them.

References

American Water Works Association. (2017). *Manual of Water Supply Practices M1: Principles of Water Rates, Fees, and Charges, Seventh Edition.* Denver: American Water Works Association.

American Water Works Association. (2022). *Lead Communications Guide and Toolkit.* Denver: American Water Works Association.

Hensley, K., Bosscher, V., Trantafyllidou, S., & Lytle, D. (2021, February 5). Lead Service Line Identifiation: A Review of Strategies and Approaches. *AWWA Water Science*, 1-19. doi:10.1002/aws2.1226

Moore, B. (2024, Febuary 17-18). Decatur looks to get ahead of lead pipe mandate. *Decatur Herald-Review*, pp. 1, 4, 5.

US Department of Health and Human Services, Office of Community Services. (February 2024). *Understanding Water Affordability Across Contexts: LIHWAP Water Utility Affordability Survey Report.* Washington, DC.

US EPA. (2022). *Guidance for Developing and Maintaining a Service Line Inventory.* Washington: Office of Water (4606M).

US Water Alliance, Stantec. (2022). *A Promising Water Pricing Model for Equity and Financial Resilience.*

Appendices

A. City of Decatur Galvanized Service Line Replacement Program Five-Year Project Plan
B. Lead Information Notice

Appendix A

City of Decatur Galvanized Service Line Replacement Program Five-Year Project Plan

Galvanized Service Line Replacement Project

Five-Year Project Plan

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Table of Contents

List of Tables

List of Figures

List of Appendices

Background Information

A. Location

The City of Decatur is located in Central Illinois in Macon County. The Water Treatment Plant is located adjacent to Lake Decatur and west of Mueller Park at 1155 S. Martin Luther King Jr. Drive in Decatur, Illinois.

B. Present Service Area

The present service area includes the City of Decatur, Village of Mount Zion, Village of Harristown and Long Creek Township Water Department. Long Creek and Harristown have interconnections that are used only for emergencies.

C. Future Service Area

There are no significant changes anticipated to the service area at this time. The City is in the process of consolidating its boundaries by annexing unincorporated properties that are substantially surrounded by properties within the city. This will eventually lead to small increases in the demand for City of Decatur water service. The City is also seeking to expand its industrial base, but there are no specific annexation proposals at this time.

D. Population Served

The historical population decreased by 7% between the 2010 and 2020 census data for the City of Decatur to approximately 70,500. The population of Mt. Zion is approximately 6,000 based on the 2020 census data. Table 1 summarizes population data taken from past Censuses, the Water System Sustainability Plan (CDM Smith , 2022), and the Additional Water Supplies Report (Intera Geoscience and Engineering Solutions, 2019).

TABLE 1: POPULATION DATA AND PROJECTIONS

Year	**City of Decatur Population**	**Macon County Population**
1980	94,081 (Census Data)	131,375 (Census Data)
1990	83,885 (Census Data)	117,206 (Census Data)
2000	81,860 (Census Data)	114,706 (Census Data)
2010	76,122 (Census Data)	110,768 (Census Data)
2012	75,308 (Census Estimate)	109,978 (Census Data)
2013	74,710 (Census Estimate)	109,278 (Census Data)
2019	71,368 (Projection*)	--
2019	70,746 (Census Estimate)	104,009 (Census Estimate)
2020	70,522 (Census Data)	103,998 (Census Data)

Year	**City of Decatur Population**	**Macon County Population**
2021	69,646 (Census Projection)	102,432 (Census Projection)
2025	72,772 (Projection*)	117,836 (IL Dept of Commerce Projection)
2030	73,998 (Projection*)	119,693 (IL Dept of Commerce Projection)
2035	75,244 (Projection*)	109,657 (Projection)
2040	76,512 (Projection*)	111,505 (Projection)
2050	79,111 (Projection*)	115,293 (Projection)

E. Makeup of Customer Base

The customer base includes residential users for the City of Decatur and the other communities listed above in Section 1B. In addition, Decatur commercial and large industrial users such as Archer Daniels Midland Company (ADM) and Primient (formerly A.E. Staley) make up a significant portion of the customer base.

F. Conditions Affecting Growth

Water demands in the City of Decatur are primarily driven by large agro-industrial users. Conditions have been favorable for the expansion of the City's agro-industry, as the existing industries expand their bio-based product lines and attract synergistic biosolution partners. For example, a French company, Innovafeed, is now completing a pilot plant to produce insect-based protein; the insects will be cultured on a low-value co-product from ADM. A number of other synergistic partnerships are actively being pursued. An estimated 800 new jobs and associated residential re-population are anticipated as a result.

Existing Water Supply Source and Treatment

A. Water Supply Source

Lake Decatur is a 2,850-acre lake located in the City of Decatur, Illinois. The lake is 614.5 feet above sea level with a watershed of 925 square miles (or 592,000 acres) spanning 7 counties. Lake Decatur is the largest municipal lake on the Sangamon River and was constructed from 1920 to 1922.

The City has alternative water sources available to supplement Lake Decatur during dry weather or drought conditions (Intera Geoscience and Engineering Solutions, 2019). These sources include a city-owned former gravel pit, which can supply 1-2 MGD for a period of 90 days as well as a city-owned well field in DeWitt County, which can supply about 10 MGD of groundwater for a period of 90 days. Water from the former gravel pit is pumped to the same raw water pump station which draws from Lake Decatur. The DeWitt Wellfield discharges to a tributary to Lake Decatur.

The City is actively pursuing additional water supply sources with a goal of improving drought resiliency and supporting industrial growth.

B. Water Treatment

The existing water treatment plant building and the raw water pump station were constructed in the mid-1980s and brought online and made operational in 1988. The nitrate removal facility was built in 2000. Nitrates are removed using an ion exchange process; it is used only when nitrate levels in Lake Decatur are high.

The treatment plant is a 38 MGD lime softening water treatment plant. Raw water from Lake Decatur flows by gravity through stationary screens to low service wet wells and is pumped from the wet wells using a combination of four vertical turbine low service pumps with rated capacities as follows. Raw water received chlorine dioxide for pretreatment.

Pump No. 1 18 MGD
Pump No. 2 13.5 MGD
Pump No. 3 9 MGD
Pump No. 4 18 MGD

The raw water is pumped to the treatment plant with carbon fed into the raw water line upstream of a splitter box at the water treatment plant that can direct flow to any of four basins: ClariCone No. 1, ClariCone No. 2, Primary Basin No. 2 or Secondary Basin No. 2. Directing flow to the secondary basins is through the immediate upstream rapid mix structures.

The water treatment plant was originally designed to run two parallel trains using a two-stage process consisting of first stage clarifiers (primary basins) for solids contact (coagulation, flocculation, and sedimentation) with lime and alum fed at the primary basins and second stage clarifiers (secondary basins) for sedimentation. Each treatment train has a 105-foot square primary softening clarifier followed by a 120-foot square secondary clarifier. Each train is rated at 18 MGD capacity. Train No. 1 is the west treatment train, while train No. 2 is the east treatment train.

Construction has just been completed to replace the east treatment train with two, 10 MGD capacity helical upflow solids contact clarifiers (ClariCones), which has increased the capacity to 38 MGD.

Secondary clarifier effluent flows by gravity through troughs to the filter influent flume where phosphate, carbon dioxide (CO_2), cationic polymer and chlorine are fed. Water from the filter influent flume flows by gravity to six dual media filters. Each filter is rated at 6 MGD. Filtered water is pumped using vertical turbine pumps to a 7.5 million gallon above ground concrete clearwell. Water is then pumped from the clearwell to the distribution system using high service pumps.

To prevent corrosion and to prevent lead or copper from dissolving in the drinking water, hardness levels are maintained at 80 mg/L or grater and alkalinity levels at 20 mg/L or greater. The City's internal goal is to maintain finished water hardness levels between 80 and 110 mg/L as $CaCO_3$ and finished water alkalinity levels greater than 20 mg/L as $CaCO_3$.

C. Water Storage Facilities

A summary of the existing storage facilities taken from the 2015 Water System Plan Update (Strand Associates, 2015) is shown in Table 2 below.

TABLE 2: STORAGE CAPACITY SUMMARY

Ground Storage	**Capacity (MG)**
Water Treatment Plant Clearwell	7.5
William Street	5.0
Subtotal	12.5
Elevated Storage	
Division Street	1.0
Garfield Avenue	1.5
S. Franklin Street	1.0
Subtotal	3.5
Total Storage Capacity	16.0

D. Existing Water Distribution System

The City of Decatur has a 530-mile water distribution system that serves both Decatur and the neighboring Village of Mount Zion. The existing system pipe inventory includes mainly ductile iron pipes, with some cast iron, and PVC pipes. Pipe diameters range from 4 to 48 inches in diameter; the majority of the lines are 12-inch diameter or smaller.

There are two pressure zones in the City, the North pressure zone which includes the service area north of Lake Decatur and the Sangamon River and the South pressure zone which includes the service area south of Lake Decatur and the Sangamon River.

The South pressure zone was improved by the installation of a two (2) pump booster station and an elevated tank. Also, a 30-inch main and two branching 16-inch mains were installed to connect the water treatment plant and the North Zone elevated tanks.

Project Description and Justification

A. Project Area

The project area comprises all high risk facilities as well as Census Tracts 5.01, 6, 3, and 9. These census tracts were selected based on the prioritization criteria set forth in the proposed rule for lead service line replacement funding (Illinois Environmental Protection Agency, 2023). See Fig. 1. The locations of the high-risk facilities is not shown to protect sensitive populations.

The current inventory indicates that there are 1,877 galvanized requiring replacement (GRR) service lines on the private side and 1,418 GRR on the public side in the project area. In addition, there are 22 high-risk facilities, for a total of 1,899 GRR to be replaced in the project. Based on prior projects to replace galvanized service lines, the actual number of GRR service lines will be less than these estimates. It is common to find that GRR service lines have already been replaced without updating the tap card records.

An average of 380 GRR will be replaced each year of the five-year plan. If the actual number of GRR service lines in the project area is less than 1,899, or if additional funding becomes available, the project area will be expanded to include Census Tract 31, the next on the priority list.

B. Project Need

The need for the project is due to the fact that lead goosenecks and galvanized pipes were commonly used for water service lines installed prior to 1940. In Decatur, only a few service lines have ever been constructed of all lead material, and all known all-lead service lines have already been removed. There have not been any all-lead service lines encountered in the water system for the past 15 years (Randy Miller, personal communication.) Although many lead goosenecks have also been removed, a large number of galvanized service lines, which were likely downstream of a lead gooseneck, are still in the system. Thus, the project need is primarily driven by galvanized requiring replacement (GRR) service lines.

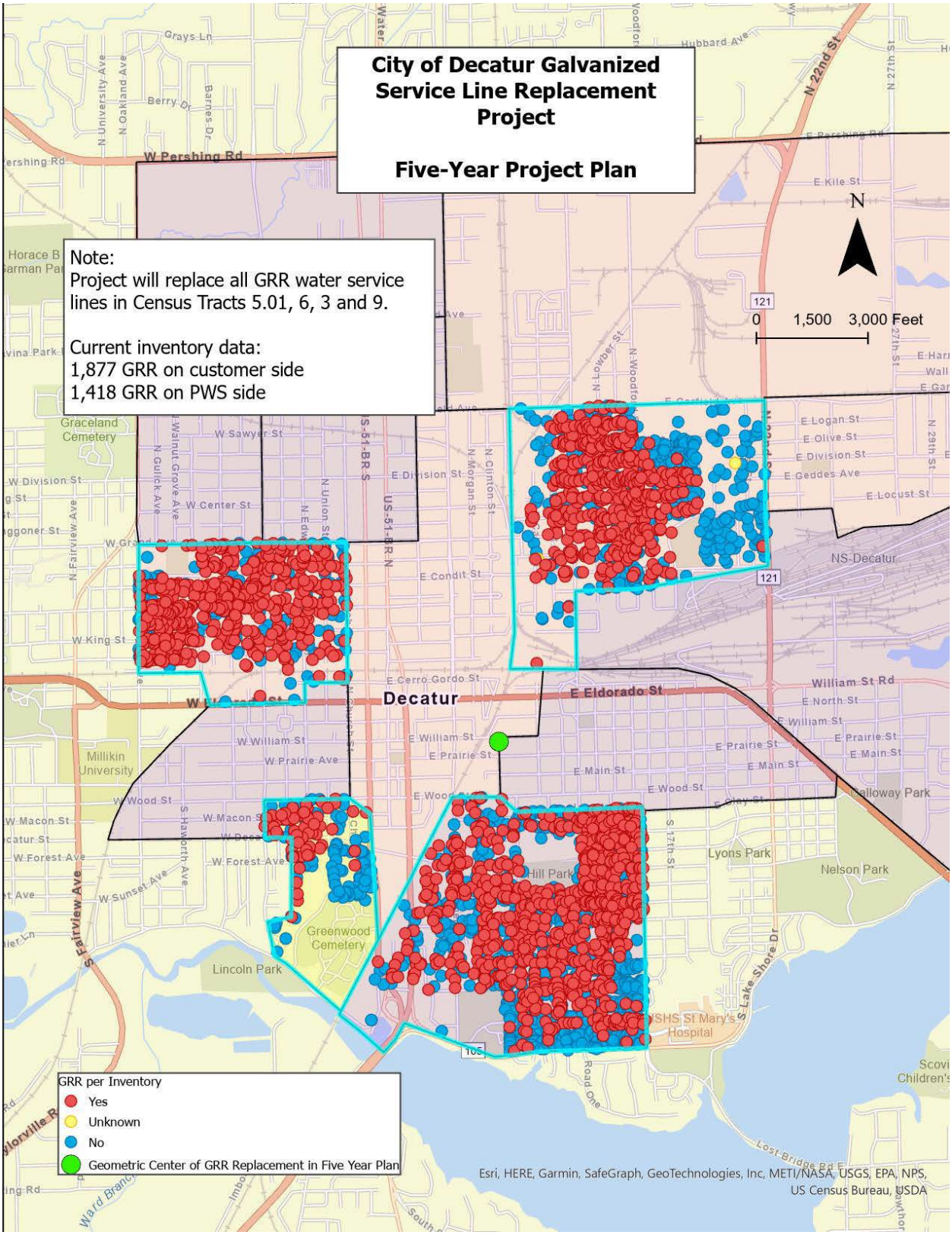

FIGURE 1 LOCATION MAP FOR FIVE-YEAR PLAN

Based on the inventory submitted to IEPA in 2023, which is primarily based on tap cards and maintenance records, there are currently 6,883 suspected GRR service lines citywide. Another 22 service lines have unknown material, which are considered as suspected lead service lines under Illinois law (Illinois Environmental Protection Agency, 2022). The estimated total number of service lines to replaced is therefore 6,905.

In the typical water service line configuration in the City of Decatur, the service line is owned by the City from the water main tap up to and including the curb stop, which is typically located at the edge of the public right of way. This section is referred to as the public service line.

From the curb stop to the customer building, the service line is the customer's responsibility. Water meters are typically located in or near the customer building. This section is referred to as the private service line.

Figure 2 depicts the typical installation.

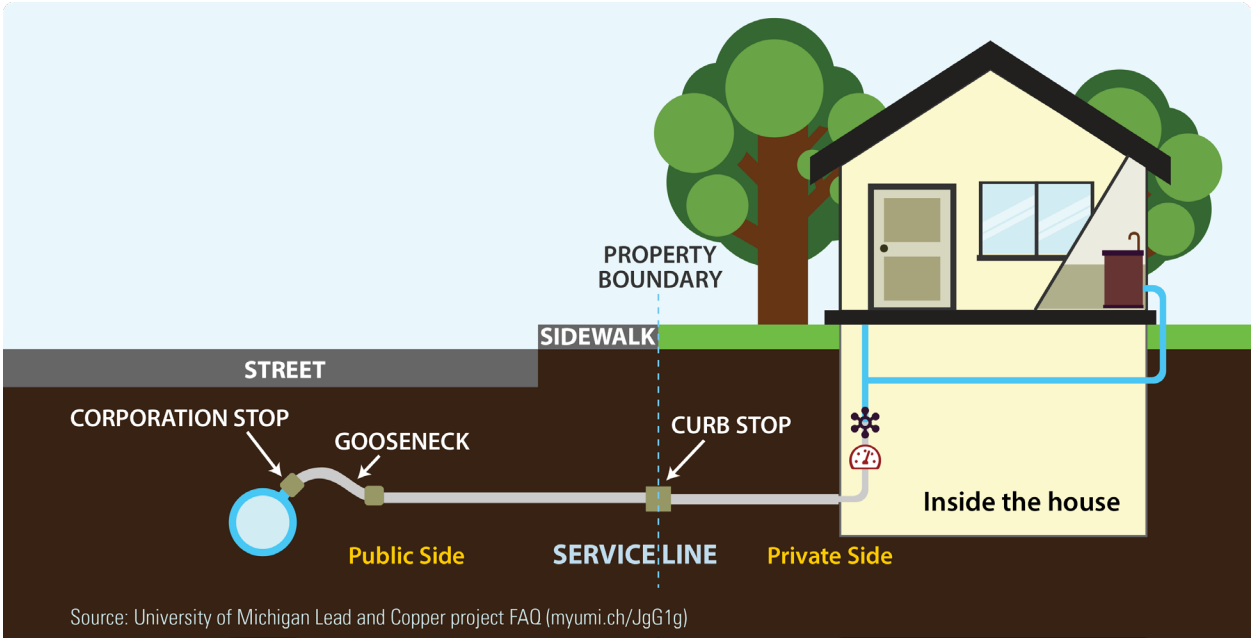

FIGURE 2 SERVICE LINE RESPONSIBILITIES

Of the 6,883 suspected GRR service lines, 4,360 are galvanized on both the public side and the private side, 2,523 are galvanized only on the private side, and 27 are galvanized only on the public side.

C. Progress in replacing galvanized service lines.
The City of Decatur has been actively replacing GRR pipes on the public side prior to pavement rehabilitation projects, as part of water main replacement projects, or as other circumstances require. Customers have been replacing GRR on the private side, often due to leakage or internal corrosion. To encourage property owners to replace GRR on the private side, the City established a policy in 2023 to reimburse customers 50% of the cost, up to a maximum limit. The policy also commits the City to replace any GRR pipe in the City service line at the same time and at no cost to the property owner. The City has promoted the program through its list of plumbing contractors and have seen an increased number of customer-initiated replacements. In 2023, 24 GRR service lines were replaced through this program

D. Planned replacement of GRR service lines.
Now, as a result of the legislation requiring full replacement of GRR service lines, the City is preparing to shift from a reactive approach to a proactive and planned lead service line replacement program.

The program has been planned to replace all GRR service lines on a priority basis. The first priority will be the high-risk facilities, as required by the Illinois Lead Service Line Replacement and Notification Act. The Lead Service Line Inventory indicates that there are 22 suspected GRR service lines at high-risk facilities. These will be replaced during the first year of the program.

For the rest of the program, priorities will be established to replace GRR lines by census tract, based on the risk-based prioritization established by the State of Illinois. See Table 3. Data (US Census Bureau, 2023) and prioritization are preliminary.

TABLE 3: INITIAL PRIORITIES FOR PROACTIVE GRR SERVICE LINE REPLACEMENT

Census Tract	**Private GRR Service Lines**	**Public GRR Service Lines**	**Estimated Priority Score**
5.01	65	43	400
6	511	321	375
3	813	646	370
9	488	408	355
Subtotal (Five-Year Program)	1877	1418	
31	280	193	340

Census Tract	Private GRR Service Lines	Public GRR Service Lines	Estimated Priority Score
5.02	361	228	335
10	9	8	330
21	124	108	305
20.02	821	428	305
20.01	13	7	300
2	824	570	285
19	527	151	280
11	214	178	240
Total (Low-income tracts)	5050	3289	

E. Daylighting to identify service line material prior to bidding

Prior to advertising for bids for the first phase of GRR service line replacement, the actual materials in the ground at each suspected service will be investigated through daylighting. The process of daylighting involves exposing a small section of the service line on either side of the curb stop using hydro-vacuum equipment. Our prior daylighting efforts have found that the actual number of GRR service lines is much smaller than estimated in the database. For example, a recent project found that 70% of the GRR service lines had already been replaced. Therefore, daylighting is essential to ensure accurate plans and specifications for bidding.

The City has received a $50,000 grant from the Illinois Lead Service Line Inventory program. This grant, combined with city funds will be used to daylight suspected GRR water service lines as follows:

- 40 water service lines including those with unknown material and those located at schools and similar facilities.
- 360 randomly selected water service lines in the City's lower-income census tracts. This representative sample will be used to plan the larger GRR replacement program
- 168 water service lines in Census Tracts 5.01 and the southern part of Census Tract 6. These results till be used to prepare the plans and specifications for the project area.

- 59 water service lines associated with the road project on US 51 between Eldorado St and Pershing Ave.

The 2024 Water Service Line Daylighting Project is expected to commence construction in February 2024 and be complete by July 2024.

F. Coordination with existing neighborhood revitalization programs

The GRR service line replacement program will be actively coordinated with ongoing neighborhood revitalization efforts. The City of Decatur has been actively pursuing neighborhood revitalization in the same geographic area as the GRR service line replacement program.

The program will need to overcome the challenge of getting consent from absentee owners. The vast majority of the suspected service lines are for single family residential properties, and between 40% and 70% of these residences are not owner-occupied (Wrighton, 2023). A recent project in Benton Harbor, MI (Betanzo, Pinkney, & Land, September 2023) used existing neighborhood groups to get residents involved in lead service line replacement. As shown in Table 4, there are a number of active community groups in the high priority census tracts with high concentrations of GRR service lines. These groups are already involved in ongoing revitalization programs sponsored by the Community Development Department and have proved to be valuable partners (Wrighton, 2023). As in Benton Harbor, these groups could be the key to facilitating tenant/property owner contact and obtaining consent to GRR service line replacement.

TABLE 4: ACTIVE NEIGHBORHOOD GROUPS IN PROJECT AREA

Census Tract	Customer-owned GRR/Unknown Service Lines	Active Neighborhood Groups
5.01	65	GANO
6	511	United Neighbors of Old Kings Orchard
3	813	Southeast Improvement Association
9	488	Fansfield, Torrance Park
31	280	Wabash Crossing Ray of Hope, Martin Luther King
5.02	361	NWRAPS
20.02	821	GM Square
2	824	Clokey Park

Census Tract	Customer-owned GRR/Unknown Service Lines	Active Neighborhood Groups
11	214	GNO

Even with assistance from neighborhood groups, it is likely that some private property owners will not be responsive. Accordingly, the City plans to follow another best practice used in Benton Harbor. An Ordinance will be considered to allow property residents to give authorization for GRR replacement, based on the successful Benton Harbor model (City of Benton Harbor, 2022).

Another challenge to be overcome is lack of property owner incentive to invest in their properties. In many cases, the average equalized assessed value of these single-family residences is well below $10,000 (Wrighton, 2023). The replacement cost for a GRR service line is hard to justify in those cases. Therefore, the program will be structured to use SRF loan funds to replace the customer-owned service lines in the high-priority low-income areas (Table 3). There is precedent for this in a recent neighborhood revitalization project in the City's Johns Hill Neighborhood (City of Decatur, 2020).

Project Location

The geometric center of the Five-Year Galvanized Service Line Replacement Project is at 39°50'37.93"N, 88°56'46.72"W.

Compliance Status

The City of Decatur water system is not in violation of any State or Federal laws.

Basis of Design

A. Emergency replacement versus planned replacement
   There are two alternatives in terms of scheduling the replacement of GRR service lines:
   1. Continue current level of effort until April 15, 2027.
   2. Initiate planned GRR replacement as soon as possible.

   The availability of principal-forgiveness SRF loans would make Alternative 2 the preferred option.

B. Project delivery alternatives
   Although the design is standard, there are alternatives as to project delivery and cost sharing, as summarized in Table 5 and discussed in detail following.

TABLE 5: PROJECT DELIVERY ALTERNATIVES

Project Phase	Alt. 1	Alt. 2	Selected Alternative	Basis
Design services	In-house engineering staff	Consultant	In-house engineering staff	1) Design is not specialized 2) Neighborhood familiarity 3) Speed of project delivery 4) City cost share
Public information	In-house staff	Consultant	In-house water service staff	1) Community familiarity 2) City cost share 3) Existing partnerships with neighborhood groups
Construction in public right-of-way	City crews	General contractor	General contractor	1) Capacity to mobilize 2) Speed of project delivery
Replacement of service lateral on owner's property	Property owner with 50% city cost share	Plumbing subcontractor(s)	Plumbing subcontractor(s)	1) Assurance of lead service line replacement in low income areas 2) Protection of public health 3) MBE and small business opportunities
Construction management	In-house engineering staff	Consultant	In-house engineering staff, in coordination with in-house water service staff	1) Construction not specialized 2) Neighborhood familiarity 3) City cost share
Documentation of lead service line status	In-house water service staff	Consultant	In-house water service staff	1) Familiarity with database 2) City cost share

The project will be designed by in-house engineering staff. Staff has the capability to provide this service, as many successful water distribution projects have been designed in house under the supervision of the registered civil engineers on staff. Engineering staff

is familiar with the neighborhoods where the lead service lines are found and are able to readily form teams with neighborhood revitalization staff, public relations staff, and water service staff as required. This will ensure rapid project delivery, eliminating the time needed for the consultant selection and contracting process. These in-kind engineering services represent one of the cost-sharing contribution to the project by the City of Decatur.

Public information is an essential part of the project, and these services will be performed by in-house water service staff. A new lead service line coordinator position is being budgeted to start in 2024; this position will be key to managing public information, working with individual property owners, obtaining consent, and updating the official lead service line inventory.

The City's public information officer has created a web page dedicated to lead service awareness. The page will be continually updated and used to provide background information on the issues as well as keeping the public informed about project progress. Best practices (American Water Works Association, 2022) are being used and advanced.

GIS mapping will assist the public in finding information about their specific properties of concern. In-house project delivery has been chosen for this task because of the ability to fine-tune the web page to the information needs of the community. These in-kind services represent one of the cost-sharing contributions to the project by the City of Decatur.

Replacement of the GRR city-owned service lines will consist of excavation, removal of the lead gooseneck, re-tapping the water main, and installing a new service line and corp stop. Some cities perform this phase only with city crews. However, the alternative to use a general contractor (GC) has been selected in this case. This will enable the public health risks to be mitigated as soon as possible. A GC can mobilize a large workforce to work on multiple service lines simultaneously, whereas city crews are limited to only one service line at a time and often get called away for service calls. Even larger cities, if they do the work in public right-of-way with city crews, are limited to 200 service line replacements per year, according to ISAWWA colleagues. By selecting the GC alternative, it is assumed that as many as three service lines could be replaced simultaneously, which should enable the goal of 380 GRR service lines to be replaced each year.

The construction contract will be structured to have licensed and bonded plumbers, acting as subcontractors to the GC, replace the GRR customer-owned service lines. This alternative will ensure that the lead service lines are replaced to the maximum extent possible as quickly as possible. It will also create more opportunities for minority business enterprises (MBEs) and small business owners.

Alternatives for delivering construction management for the project include consulting services, in-house engineering staff, or a combination of the two. Construction management will be a complex and labor-intensive task for this project due to the need for coordinating with the GC, plumbing contractors, residents and property owners. In-house engineering staff is skilled at such coordination and familiar with the neighborhoods. Accordingly, construction management by city staff is the selected alternative for project delivery. This represents one of the cost-sharing contributions to the project by the City of Decatur.

The City's Water Services Division has been responsible for performing the lead service line inventory and has done so in a detailed and thorough database. Although a consultant could relieve them of this task, the in-house alternative has been selected for this key phase of project delivery. This will ensure integrity and continuity of the data keeping effort. These in-kind services represent one of the cost-sharing contributions to the project by the City of Decatur.

C. Filter replacement alternatives

In cases where the property owner initially refuses to replace their private GRR service line, point of use filters are to be provided until full replacement can be accomplished. The City evaluated two alternatives:

1. Pitcher filters
2. Faucet-mounted filters

A review of the literature (Tang, Lytle, Achtemeier, & Tully, 2023; Betanzo, Pinkney, & Land, September 2023) indicates that faucet-mounted filters offer public health advantages. This type of filter has a significantly greater capacity for treating water prior to filter replacement and is easier to use for residents. Also, solid-block activated carbon is more commonly used in faucet-mounted filters, which is less prone to channeling than granular activated carbon. Lastly, the passing rate for faucet filters has been found to 98%, higher than pitcher filters or under-the-counter filters. (Tang, Lytle, Achtemeier, & Tully, 2023). Another advantage of faucet-mounted filters is that under-the-counter filters have been found to actually increase lead concentrations (Clark, Pan,

Giammar, & Nguyen, 2022) in the field due to the presence of lead in downstream plumbing fixtures.

However, if a property owner prefers a pitcher filter, the City will keep a stock of them on hand. A disadvantage of faucet-mounted filters is that they do not work with spray-head faucets. Research (Tang, Lytle, Achtemeier, & Tully, 2023) has shown that pitcher filters are also effective at reducing lead concentrations to less than the required action level.

It should be noted that filters are considered a temporary solution. The City intends to continue following up with property owners and/or residents to ensure that full GRR is completed.

D. Customer-owned GRR termination point alternatives
Two alternatives were considered for the termination point for replacing private GRR service lines:
    1. terminating at the existing meter
    2. terminating at the existing (or newly installed) shutoff valve.

An advantage of terminating at the existing meter is that the installation process is simplified. Working on customer premises typically involves difficult access issues and complex repairs. However, terminating at a shutoff valve was selected because it offers greater public health benefits.

E. Neighborhood revitalization alternatives
Two alternatives were considered for neighborhood revitalization in conjunction with GRR service line replacement:
    1. Include neighborhood revitalization efforts as much as possible in the galvanized service line replacement project.
    2. Complete the galvanized service line replacement program in stand-alone projects.

Although it might seem that coordination with neighborhood revitalization efforts could take more time and involve more complexity, it actually should help to expedite the program. For example, the city plans to vet properties with outstanding code violations prior to including them on the GRR replacement list. In cases where property owners do not respond in a timely manner to code violations on vacant properties, the

properties could be placed on the City's demolition list and the GRR replacement funds could be used for occupied, viable properties.

Coordination with the neighborhood revitalization program could also lead to funding opportunities.

The City's Opportunity Zone, established pursuant to the Tax Cut and Jobs Act of 2017, is comprised of five low-income census tracts (tracts 2, 3, 5.01, 5.02, 9 and 31), which also have a total of 2,827 suspected GRR service lines, about 40% of the total. In the Opportunity Zone, investments made through an Opportunity Fund are eligible for tax deferral, reduction, or exemption, depending on how long the property is held. Opportunity funding may provide a vehicle for property reinvestment at the same time that GRR service lines are replaced.

The City is actively pursuing revitalization in the Jasper Street corridor, which is in high-priority Census Tracts 2, 3 and 9. A $10,000,000 PRO Housing Grant from HUD has been received for this corridor, which will be used to expand the existing residential housing rehabilitation programs.

The City also intends to coordinate with Ameren, the local electricity and gas utility, which offers residential energy saving incentives that could be completed at the same time as GRR replacement.

Environmental Review

A. Primary environmental impacts
The anticipated environmental impacts are not affected by the choice of project alternatives. Potential impacts would include construction dust, soil erosion and noise. Mitigation measures are as follows:

1. Construction dust will be mitigated by using trenchless technology.
2. Soil erosion will be mitigated by using trenchless technology. Erosion from disturbed areas will be minimized through the use of the Illinois Urban Manual (Illinois Environmental Protection Agency, 2023).
3. Construction noise will be mitigated through the standards set forth in IDOT standard specifications and monitoring by the City inspector.

B. Secondary Environmental Impacts
No secondary environmental impacts are known or anticipated.

C. Environmental Checklist
   Please refer to the completed checklist in Appendix A.

Project Cost Estimate

The number of suspected GRR service lines to be replaced at high-risk facilities and in the project area have been tallied using the database.

The cost estimate is based on the following planning factors derived from the inventory as well as past projects:

1. Of the GRR service lines to be replaced, 58% have already been replaced on the customer side.
2. 96% of GRR service lines are ¾" diameter
3. 3% of GRR service lines are 1" diameter
4. 1% of GRR service lines are 2" diameter
5. Typical length of City-owned service line = 20 feet
6. Typical length of Customer-owned service line = 35 feet

TABLE 6: COST ESTIMATE FOR 5-YEAR GRR SERVICE LINE REPLACEMENT PROJECT

Item	Quantity	Unit of measurement	Unit price	Item total
3/4" COPPER WATER SERVICE, CORPORATION STOP TO CURB STOP, BORED	14,507	FOOT	160	$2,321,120
1" COPPER WATER SERVICE, CORPORATION STOP TO CURB STOP, BORED	453	FOOT	168	76,104
2" COPPER WATER SERVICE, CORPORATION STOP TO CURB STOP, BORED	151	FOOT	172	25,972
3/4" COPPER WATER SERVICE, CURB STOP TO HOUSE, BORED	60,446	FOOT	130	7,857,980
1" COPPER WATER SERVICE, CURB STOP TO HOUSE, BORED	1,889	FOOT	138	260,682

Item	Quantity	Unit of measurement	Unit price	Item total
2" COPPER WATER MAIN, CURB STOP TO HOUSE, BORED	629	FOOT	142	89,318
¾" CURB STOP AND BOX	1727	EACH	1800	3,108,600
1" CURB STOP AND BOX	54	EACH	2000	108,000
2" CURB STOP AND BOX	18	EACH	2200	39,600
BUILDING SERVICE CONNECTION	1,799	EACH	1500	2,698,500
SURFACE RESTORATION	1	LS	650000	650,000
EXPLORATORY EXCAVATION	600	EACH	450	270,000
CONTINGENCY ALLOWANCE	1	LS	800000	800,000
Subtotal, construction costs				**$18,305,876**
Estimating contingency (10%)				**1,830,588**
Total funding request				**$20,136,463**

Overall project costs are summarized as follows:

1. Design engineering (in kind cost share by City)..... $0.00
2. Construction engineering (in kind cost share by City) 0.00
3. Other professional services (in kind cost share by City)..... 0.00
4. Construction..... 18,305,876.00
5. Contingency (10%)..... 1,830,538.00
6. Total estimated project costs $20,136,463

The breakdown of annual project costs for the five-year project plan is as follows:

TABLE 7: PROJECT COSTS BY YEAR

Year	Number of service lines	Scope	Annual project costs
1	380	High-risk facilities and census tracts 5.01 and 6	$4,029,413
2	380	Complete census tract 6, start census tract 3	4,029,413
3	380	Census tract 3	4,029,413

Year	**Number of service lines**	**Scope**	**Annual project costs**
4	380	Complete census tract 3, start census tract 9	4,029,413
5	379	Complete census tract 9	4,018,811
Total			$20,136,463

If other water systems are not able to meet fund obligation deadlines, the City of Decatur is prepared to accept available funds and accelerate future phases of GRR into this 5-year project.

Proposed Loan Terms

A. IEPA Loan Amount for this project is estimated at $20,136,463.
B. Interest rate is anticipated to be 0.0%.
C. Depending on scoring of submitted projects, repayment will either be 20 years or repayment will be waived under the principal forgiveness aspect of the proposed rule.
D. If the project does not receive a principal forgiveness loan, annual loan repayment is estimated at $1,006,823.

Proposed Financial Arrangements

The source of revenue for repayment of the loan will be the Water Capital Fund. The Water Capital Fund is a designated fund of the City of Decatur water utility enterprise. Water utility revenue is used exclusively to fund the City's water supply, treatment and distribution operation, including maintenance, repairs, capital improvement costs and debt service. The revenue from water sales is not used to fund any other City departments or funds, except to reimburse other departments for services provided.

Existing Rate Structure

A. Average water consumption and the basis of billing
During 2020, 2021, and 2022, the average water consumption in Decatur was 20.3 million gallons per day (MGD), and the average maximum day consumption was 25.0 MGD.

The average day demand from the twelve largest potable water users represents more than 50% of the total water consumption (Table 7).

TABLE 8: LARGEST POTABLE WATER USERS

Existing Customer	2020 to 2022 Average Day Demand (MGD)
Primient (formerly A.E. Staley)	5.96
ADM	4.63
Mt. Zion Water System	0.32
Fuyao Glass Illinois	0.20
Akorn Pharmaceuticals (Now Rising)	0.10
Decatur Memorial Hospital	0.08
Mueller Water Products	0.08
St. Mary's Hospital	0.07
Decatur Country Club	0.06
Prairie Farms (now Tillamook)	0.06
Millikin University	0.05
Caterpillar	0.05
Total	**11.66**

Residential demand represents about one-third of overall potable water use, or 6.77 MGD.

The remainder of the water demand, 1.87 MGD, is the total water demand from smaller commercial and industrial users.

The basis of billing was established in a 1997 rate study (Economic and Engineering Services, Inc., 1997). Four service classes were established: 1) residential, 2) commercial, 3) ADM and 4) A.E. Staley (now Primient). Cost of service was divided into two categories: A) commodity cost to meet average day demands, and B) capacity costs to meet peak day demands. Each cost of service category was then allocated to each user class, depending on the relative demands. Residential and commercial customers have a higher peaking factor and thus bear a greater share of the capacity costs. The two large industrial customers had a more consistent daily average and thus bear a greater percentage of commodity costs.

Rates have been increased 14 times since 1997. An automatic cost of living increase in water rates was established in 2015. However, the basis of billing has not been changed since the last rate study in 1997.

The water utility financial health was recently reviewed as part of a comprehensive long-term sustainability plan (CDM Smith , 2022). Capital needs and operating costs were carefully analyzed, and the rate structure and revenues were found to be sufficient.

B. Current average monthly residential bill
   The current average monthly residential bill is $27.50 for a family of four, based on the 2022 average residential usage of 428.13 cubic feet per month.

Operations and Maintenance

The City's billing cycle is monthly.

Appendix B provides the existing user charge and operations, maintenance and repair certification sheet.

Green Components

The use of hydro-vacuum excavation for daylighting and trenchless technology for water service line replacement as opposed to traditional mechanical excavation reduces land disturbance, fuel usage, emissions and stormwater runoff.

Project Schedule

The anticipated key milestones for the 2025 project are as follows:

A. July 2024: Intended Use Plan posted.
B. December 2024: Complete plans and specifications
C. March 2025: Advertise for bids
D. April 2025: Pre-bid meeting to emphasize minority business enterprise requirements.
E. August 2025: Commence construction
F. August 2030: Complete construction

Intergovernmental or Service Agreements

No intergovernmental agreements or service agreements are necessary to complete the proposed project.

Construction Permit

The replacement of GRR water service lines will not require an IEPA permit unless the work is in conjunction with a water main replacement project that serves more than one (1) customer. In the current project area, water main replacement is not anticipated.

News Organizations

The local newspapers are the Decatur Tribune, which is at 132 South Water Street, Suite 424 and the Herald and Review, which is at 601 East William Street. Both are in Decatur, Illinois 62523.

Scope Identification and Summary

The proposed general solution is to perform a full replacement of all GRR water service lines in the City of Decatur.

The proposed project location for the initial 5-year galvanized water service replacement plan is Census Tracts 5.01, 6, 3, and 9. If the budget allows, the project area will be expanded to Census Tract 31.

The proposed upgrade is to replace lead goosenecks and galvanized service lines which are or were downstream of lead goosenecks with non-lead material.

Conclusion

The proposed 5-year Galvanized Service Line Replacement project will enable the City of Decatur to mitigate health risks associated with lead goosenecks and comply with Illinois (Illinois Environmental Protection Agency, 2022) and US law (US EPA, 2021). The availability of principal-forgiveness SRF loans will accelerate the replacement program by at least two years.

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Appendix B

Lead Information Notice

CITY OF DECATUR ILLINOIS

#1 GARY K ANDERSON PLAZA DECATUR, ILLINOIS 62523-1196

Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Dear Water Customer:

This notice contains important information about your water service and may affect your rights. We encourage you to have this notice translated in full into a language you understand and before you make any decisions that may be required under this notice.

Diese Mitteilung beinhaltet wichtige Informationen über Ihre Wasserversorgung und könnte Ihre Rechte beeinflussen. Wir bitten Sie, dass Sie diese Mitteilung vollständig in eine Sprache übersetzen lassen, die Sie verstehen, bevor Sie eventuelle Entscheidungen treffen, welche im Zusammenhang mit dieser Benachrichtigung erforderlich sind.

Ang abisong ito ay naglalaman ng mahalagang impormasyon tungkol sa iyong serbisyo sa tubig at maaaring makaapekto sa iyong mga karapatan. Hinihikayat namin kayo na isalin nang buo ang abisong ito sa wikang naiintindihan ninyo at bago kayo gumawa ng anumang mga desisyon na maaaring kailanganin sa abisong ito.

આ સૂચનામાં તમારી પાણીની સેવા વિશે મહત્વપૂર્ણ માહિતી શામેલ છે અને તમારા અધિકારોને અસર કરી શકે છે. અમે તમને પ્રોત્સાહિત કરીએ છીએ કે તમે આ સૂચના હેઠળ જરૂરી હોય તેવા કોઈપણ નિર્ણયો લો તે પહેલાં તમે આ સૂચનાને તમે સમજો છો તે ભાષામાં સંપૂર્ણ ભાષાંતર કરો.

Niniejsze zawiadomienie zawiera ważne informacje na temat Państwa przyłącza wodociągowego i może mieć wpływ na Państwa prawa. Przed podjęciem jakichkolwiek decyzji, które mogą być wymagane na mocy niniejszego zawiadomienia, zachęcamy Państwa do przetłumaczenia całości niniejszego zawiadomienia na język, który będzie dla Państwa zrozumiały.

يحتوي هذا الإشعار على معلومات مهمة حول خدمة المياه لديك، وقد يؤثر على حقوقك. قبل اتخاذ أي قرارات قد تكون مطلوبة بموجب هذا الإشعار فإننا نشجعك على ترجمته بالكامل إلى لغة تفهمها.

اس نوٹس میں آپ کی پانی کی سروسز سے متعلق اہم ترین معلومات موجود ہیں اور یہ آپ کے حقوق کو متاثر کر سکتا ہے۔ ہم آپ کو ترغیب دیں گے کہ آپ اس نوٹس کا مکمل طور پر اس زبان میں ترجمہ کروائیں جو آپ سمجھتے ہوں اور ممکن ہے کہ آپ کے کوئی فیصلہ لینے سے قبل اس نوٹس کے تحت یہ درکار بھی ہو۔

Este aviso contiene información importante sobre su servicio de agua y puede afectar sus derechos. Lo animamos a que traduzca este aviso a un idioma que comprenda antes de tomar cualquier decisión que pueda ser necesaria en virtud del mismo.

이 통지서에는 귀하의 권리에 영향을 미칠 수 있는 수도 서비스에 관한 중요한 정보가 제시되어 있습니다. 이 통지서에서 요구하는 결정을 내리기 전에 이 통지서를 귀하가 이해할 수 있는 언어로 번역하시기 바랍니다.

本通知包含有关您的供水服务的重要信息，可能会影响到您的权利。在您做出本通知所要求的任何决定之前，我们鼓励您将本通知完整地翻译成您可理解的语言。

CITY OF DECATUR ILLINOIS
#1 GARY K ANDERSON PLAZA DECATUR, ILLINOIS 62523-1196

Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Our water system will soon begin a water line maintenance and/or construction project that may affect the lead concentrations in your drinking water. Lead, a metal found in natural deposits, is harmful to human health, especially young children, and pregnant women. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that can carry oxygen to all parts of your body. The most common exposure to lead is swallowing or breathing in lead paint chips and dust. However, lead in drinking water can also be a source of lead exposure. In the past, lead was used in some water service lines and household plumbing materials. Lead in water usually occurs through corrosion of plumbing products containing lead; however, disruption (construction or maintenance) of lead service lines may also temporarily increase lead levels in the water supply. This disruption may be sometimes caused by water main and water service maintenance.

The purpose of this notice is for informational purposes only. While it's not known for certain whether this repair or maintenance line project will adversely affect the lead (if present) plumbing in and outside your home, below describes some information about the project and some preventative measures you can take to help reduce the amount of lead in drinking water.

What you can do to reduce lead exposure in drinking water during this construction project:

- *Run your water to flush out lead.* If the plumbing in your home is accessible; you may be able to inspect your own plumbing to determine whether you have a lead service line or lead solder. Otherwise, you will most likely have to hire a plumber.
    - If you do not have a lead service line, running the water for 1 – 2 minutes at the kitchen tap should clear the lead from your household plumbing to the kitchen tap. Once you have done this, fill a container with water and store it in the refrigerator for drinking, cooking, and preparing baby formula throughout the day.
    - If you do have a lead service line, flushing times can vary based on the length of your lead service line and the plumbing configuration in your home. The length of lead service lines varies considerably. Flushing for at least 3 – 5 minutes is recommended.
- *Use cold water for drinking, cooking, and preparing baby formula.* Do not cook with or drink water from the hot water tap, lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- *Look for alternative sources or treatment of water.* You may want to consider purchasing bottled water or a water filter that is certified to remove "total lead".
- *Clean and remove any debris from faucet aerators on a regular basis.*
- *Do not boil water to remove lead. Boiling water will not reduce lead.*
- *Purchase lead-free faucets and plumbing components.*
- *Remove the entire lead service line.*
- *Test your water for lead.* Call us at: **217-424-2831** to find out how to get your water tested for lead. While we do not do the testing, we can provide a list of laboratories certified to do the testing. Laboratories will send you the bottles for sample collection. Please note that we are not affiliated with any laboratory, and they will charge you a fee.
    - If test results indicate a lead level above 15 ug/L, bottled water should be used by pregnant women, breast-feeding women, young children, and formula-fed infants.