Revised Lead Service Line Replacement Plan
City of Springfield, Illinois
City Water, Light & Power
IL 1671200

Date: April 14, 2026

1. SYSTEM BACKGROUND

A. Present Service Area: The present service area includes 154 square miles and a customer base of approximately 152,000 people. The project location is within the City's water distribution system that existed prior to 1930 (See Appendix A). Areas served by the City of Springfield's potable water treatment facility include:

The City of Springfield	The Village of Williamsville
The Village of Rochester	The Village of Jerome
The Village of Chatham (emergency)	The Village of Leland Grove
The Village of Sherman	The Village of Loami
The Village of Grandview	Sugar Creek Public Water District
The Williamsville Water Commission	Round Prairie Water District
Curran Gardner Water District (portions)	Unincorporated Areas Near the City of Springfield

B. Future Service Area: The projected service area and customer base to be served by the City of Springfield's potable water treatment facility includes:

The City of Springfield	The Village of Williamsville
The Village of Rochester	The Village of Jerome
The Village of Chatham	The Village of Leland Grove
The Village of Sherman	The Village of Loami
The Village of Grandview	Sugar Creek Public Water District
The Williamsville Water Commission	Round Prairie Water District
Curran Gardner Water District (portions)	LLEC Power Plant
Unincorporated Areas Near the City of Springfield	

2. EXISTING FACILITIES

The City of Springfield's existing potable water treatment facility is located in the southeastern section of Springfield at 3100 Stevenson Drive, near the north end of Lake Springfield. The treatment facility and water distribution system consists of the following:

- Raw water intake in Lake Springfield
- Raw water pumping station
- Single stage clarification/softening with upflow clarifiers
- Dual media rapid rate gravity filters
- Clearwell

- Finished water pumping station
- Chemical feed and storage facilities
- 770 miles of water main ranging in size from 36" to 4"
- 3 storage tanks; 1 MG elevated, 4 MG Ground tank with pump station and a 5 MG standpipe with pump station
- 55,254 service connections
- 9,201 confirmed and suspected lead service lines to be replaced

Treated water is carried from the Water Purification Plant to the ultimate users through a network of water mains. The current City Water, Light & Power (CWLP) water transmission and distribution system consists of approximately 770 miles of water mains, which measure from 4 inches to 36 inches in diameter.

The history of the expansion of the water system closely parallels the growth of the city. There were just less than 100 miles of water mains in the system in the early 1930's. About 25 miles were added during that decade. Although very little main expansion took place during World War II, rapid development following the war resulted in the addition of over 45 miles during the late 1940s. In response to the continued growth of both Springfield's population and the needs of our state government over the next five decades, 60 miles of new main were added in the 1950s; 65 miles in the 1960s; just under 100 miles in the 1970s; 60 miles in the 1980s; and 130 miles in the 1990s. From 2000 through 2021, approximately 108 miles of new main were added to the system.

The majority of Springfield's water main system is composed of durable cast iron pipe, which has a very long useful life cycle under most conditions. Newer mains are constructed of ductile iron, an even more durable product.

Water Consumption/Usage:

1)	Average Day Demand	22 MGD
2)	Maximum Day Demand	40 MGD
3)	Peak Hour Demand	65 MGD
4)	Projected Average Day Demand	22 MGD

3. PROJECT DESCRIPTION

A. CWLP Lead Service Line Replacement History:

As we all know, exposure to lead is known to cause serious health risks to children. The issues with lead in Flint, Michigan and new legislation in the State of Illinois and federal regulations have brought this to the forefront of the water industry.

As water providers are acutely aware, lead is not present in the water source or finished water leaving the Water Treatment Plant. Lead enters the drinking water from the corrosion of lead

plumbing materials, specifically the water service line to a customer's building and the plumbing/fixtures within the building. Even though lead plumbing materials were banned in 1986, there are still millions of homes in the United States served by a Lead Service Line (LSL). Springfield alone has an estimated 9,201 LSLs. In Springfield, a majority of the lead service lines are on the utility owned portion of the service line in homes built prior to 1930. Appendix A shows the area of town where lead service lines are probable as well as the anticipated future project locations. Addresses of existing lead service line locations and lead service lines that have been replaced since 2020 can be found on the 2026 Lead Service Line Inventory located on the CWLP website.

Eliminating lead in drinking water presents unique challenges to water providers. The water provider is responsible for water quality to the tap. However, only a small portion of the water service is owned and maintained by the water provider. The remainder of the water service and interior plumbing is privately owned. Research has shown that partial LSL replacement (i.e. replacing only the utility owned portion of the lead water service) is worse than no replacement at all.

The CWLP lead service line inventory was initially developed by reviewing historical records. In an attempt to determine the number of potential lead service lines and their approximate location, research and fieldwork was performed. The research consisted of reviewing past purchasing documentation, service line records or cards for year of install and material of construction. Fieldwork consisted of vacuum excavating and visual identification during routine and emergency work. CWLP began collecting field data for service line material as these lines were exposed beginning in May of 2016. Based on this work, it is estimated that the city transitioned from using lead to copper around 1930 on the utility owned portion of the service line. Most of the customer owned portion of the service lines for these homes constructed before 1930 are galvanized lines. These galvanized service lines that are or were at one time downstream of lead will also need to be replaced as detailed in the project plan.

The potential lead service line area shown on the map (Appendix A) includes service lines that have been confirmed to be lead or are suspected to be lead based on install date or other records as noted above. While some of these service lines may have been replaced with newer lines over the years, the service lines in this area have a high potential to be lead and the customer service lines have a high potential to be galvanized. CWLP has an interactive service line material map on our website that is updated daily. CWLP continues to pothole service lines and inspects customer service lines entering the homes to verify this data.

B. <u>Lead Service Line Locations</u>:

The Lead Service Lines in Springfield are within an area of properties developed prior to 1930. This area encompasses the area described below:

- South of Sangamon Ave.
- North of Stanford Avenue/Wabash Ave.
- East of Chatham Rd.
- West of Taylor Ave. from Stanford Ave. to Old Rochester Rd.; West of Eastdale Dr. from Old Rochester Rd. to Clearlake Dr.; West of Wesley St. from Clearlake Dr. to Keys Ave.; West of Albany St./Henley Rd. from Keys Ave. to Sangamon Ave.

Isolated areas north of Sangamon Ave. including:

- 15th St. between Sangamon Ave and Saunders St.
- Peoria Rd between Gate 4 of the Fairgrounds and Taintor Rd.
- Other isolated areas outside the previously described extents.

Total Service Lines	Total Lead	Total Non-Lead	Total Galvanized Requiring Replacement	Total Unknown	Total Requiring Replacement	Total Lead Replaced since 2020
55,254	991	46,053	1,261	6,949	9,201	910

Note: See CWLP 2026 Lead Service Line Inventory & Interactive Service Line Material Map at https://www.cwlp.com/LeadAwareness.aspx for addresses of existing lead service lines and addresses that have had lead service lines replaced.

C. Lead Service Line 21 Year Project Plan:

- Over the next twenty-one years with this project we plan to replace 201 lead service lines the first year and 450 service lines each year after that until all lead service lines have been replaced in the City of Springfield. In total this 21 year project includes replacing 9,201 lead service lines in the City of Springfield. This plan assumes CWLP will have under 9,000 LSL's on April 15, 2027.

Year	LSL Replaced to Date	LSL Remaining
1	201	9,000
2	651	8550
3	1101	8100
4	1551	7650
5	2001	7200
6	2451	6750
7	2901	6300
8	3351	5850
9	3801	5400
10	4251	4950
11	4701	4500
12	5151	4050
13	5601	3600
14	6051	3150
15	6501	2700
16	6951	2250
17	7401	1800
18	7851	1350
19	8301	900
20	8751	450
21	9,201	0

- CWLP has already replaced all known lead services at high-risk facilities, including all day cares, medical facilities, schools and parks. During the next 5-years of this project we will continue to focus on residential areas with low median household incomes, areas in conjunction with other public works projects and water main replacements, locations of emergency failures on city owned lead lines, and in combination with customers replacing their galvanized service lines that are found to be downstream of a city owned lead line.

- Prior to planned replacement efforts, service lines will be vacuum excavated to verify the service line material on both the city side and the customer side. If the city owned portion of the service line is lead the service line will be scheduled for replacement. If the city owned portion is lead and the customer side is lead or galvanized, both the city and customer side will be scheduled with the customer for replacement. Owners will be notified at least 45 days prior to the planned replacement date. If the owner does not respond within 15 days of the initial notification, a second notice will be posted at the property. The owner will also be given a written notice regarding the dangers of lead and best practices per 415 ILCS 5/17.12.

- If there is an emergency failure on the city side of a lead service line or the lead service line is disturbed it will be replaced immediately. If during the replacement efforts it is found that the customer owned portion of the service line is lead or galvanized the customer shall be notified immediately and the customer side will be scheduled for replacement as soon as possible. If the customer side is lead or galvanized a lead removal water filter pitcher will be made available until the service line is replaced entirely and a written notice regarding the dangers of lead and best practices will be provided per 415 ILCS 5/17.12.

- If a customer notifies CWLP that they are replacing their portion of a galvanized or lead line, if not already known CWLP will verify the material type of the city side of the service line and will then schedule as soon as possible for replacement if it was found to be lead. A lead removal water filter pitcher will be made available until the service line is replaced entirely.

- If the customer does not want their lead or galvanized service line replaced as part of this project plan a signed waiver will be required and IDPH will be notified per current state regulations.

D. <u>Scope of Work</u>:

- Replace existing CWLP owned lead service line and customer owned lead or galvanized water service line from existing main to existing residential home.

<u>Publicly Owned Service Line Replacement Scope of Work:</u>

1. Excavate existing water main in roadway or parkway.
2. Excavate at existing meter pit or curb stop location between sidewalk and curb (remove concrete sidewalk if needed).
3. Install a 1" or ¾" connection to existing cast iron water main and pull new 1" or ¾" type K copper behind existing lead line.

4. Install new 1” or ¾” copper setter and meter pit.

Privately Owned Service Line Replacement Scope of Work:

1. Replace customer’s lead or galvanized service line with 1” or ¾” type K copper from meter pit to basement.
2. Install 1” or ¾” brass ball valve and connect to existing plumbing within 18” of interior basement wall.
3. Repair basement wall, flush air out of household plumbing.
4. Sidewalk and roadway repairs as needed.
5. Surface restoration of yard as needed.

4. GENERAL AND DESIGN ALTERNATIVES ANALYSIS

The general and design alternatives analysis for the Lead Service Line Replacement Plan conducted for this Project Plan are as follows:

- Emergency Lead Service Line Replacements Only until April 15, 2027 and Start Planned Replacements in accordance with 415 ILCS 5/17.12 starting April 15, 2027 – replace lead service lines as they fail or are disturbed and have CWLP contractor replace customer portion (if lead or galvanized) with outside funding source if available.

- Both Planned and Emergency Lead Service Line Replacements – be proactive prior to April 15, 2027 and replace a larger number of lead service lines per year as well as replace customer owned portion of service line with outside funding source if available.

A. Emergency Lead Service Line Replacements Only until April 15, 2027 and Start Planned Replacements in accordance with 415 ILCS 5/17.12 starting April 15, 2027: Currently it is CWLP policy to replace the entire lead service line from the main to the meter pit if it has failed or is disturbed. We then work with the customer to have a CWLP contractor replace their portion of the service line (if lead or galvanized) with an outside funding source if available. In addition to these emergency replacements, starting April 15, 2027, CWLP will be required by state regulation to replace all lead service lines over a 20 year period. The exact annual service line replacement number will depend on our final lead service line inventory at that time.

B. Both Planned and Emergency Lead Service Line Replacements: Prior to April 15, 2027 CWLP will continue to be proactive and replace lead service lines at planned locations as well as on an emergency basis in the City of Springfield. This includes replacing both the city side and customer side of the lead service line as defined by state regulations. These replacements will be funded by both CWLP budgeted funds as well as an outside funding source, such as State Revolving Funds (SRF)with loan forgiveness and ARPA funds.

The loan forgiveness funding will provide a funding mechanism for CWLP to be able to replace privately owned lead services. This funding will also be used to assist with street and sidewalk repairs that are a result of the lead service line replacement.

CWLP budgeted funds will be utilized for labor, equipment and service line materials needed to replace the city owned portion of the lead service line as well as engineering and project management for the entire project.

5. EVALUATION

Based on the above needs for improvement, public health concerns, and state regulations the replacement of lead service lines is a necessity and will include Both Planned and Emergency Lead Service Line Replacements per the City's Lead Service Line Replacement Plan.

6. PROJECT COST ESTIMATE (2 YEAR ESTIMATE) & (21 YEAR ESTIMATE)

Cost estimates include replacing both CWLP and the customer owned service lines and are attached for reference. A majority of the water mains in this area will be under pavement so $12,000 for the first 2 years, and a 2.5% annual increase each year after that will be used for all services as a budgetary project cost.

Over the next 2 years with this project plan, we plan to replace a total of 651 lead service lines. CWLP will use the IEPA SRF loan and remaining ARPA funds to pay for all items listed under contractor's scope and items listed under CWLP's scope will be funded with CWLP's existing capital improvement budgeted funds.

This is a breakdown of the 2-year Project plan:

Year	Service lines	Total Cost	Contractor cost	Total Contractor	CWLP cost	Total CWLP	Grand Total
1	201	$ 12,000	$ 7,500	$ 1,507,500	$ 4,500	$ 904,500	$ 2,412,000
2	450	$ 12,000	$ 7,500	$ 3,375,000	$ 4,500	$ 2,025,000	$ 5,400,000
Total	651			$ 4,882,500		$ 2,929,500	$ 7,812,000

A dollar amount of $ 2,300,000 remains on the 2025 SRF loan fund with 100% principal forgiveness and an additional $220,000 remains from the 2025 ARPA funds that have been reserved for replacements. This equates to $2,520,000 in secure outside funding and the remaining $ 5,292,000 will be funded by CWLP and other IEPA SRF funds that have been applied for but not secured at this time. The total projected 2-year project cost is estimated at $ 7,812,000. Funding for this 2-year project has been partially secured by CWLP.

Future Projections Year 1 thru Year 21:

Years	Service lines	Total Private + Restoration	Total Public	Grand Total
1 - 2	651	$ 4,882,500	$ 2,929,500	$ 7,812,000
3	450	$ 3,375,000	$ 2,025,000	$ 5,400,000
4	450	$ 3,465,000	$ 2,070,000	$ 5,535,000
5	450	$ 3,555,000	$ 2,115,000	$ 5,805,000

6	450	$ 3,735,000	2,250,000	$ 5,985,000
7	450	$ 3,825,000	$ 2,295,000	$ 6,120,000
8	450	$ 3,915,000	$ 2,340,000	$ 6,255,000
9	450	$ 4,005,000	$ 2,385,000	$ 6.390,000
10	450	$ 4,095,000	$ 2,475,000	$ 6,570,000
11	450	$ 4,230,000	$ 2,520,000	$ 6,750,000
12	450	$ 4,320,000	$ 2,610,000	$ 6,930,000
13	450	$ 4,455,000	$ 2,655,000	$ 7,110,000
14	450	$ 4,545,000	$ 2,745,000	$ 7,290,000
15	450	$ 4,635,000	$ 2,790,000	$ 7,425,000
16	450	$ 4,770,000	$ 2,880,000	$ 7,650,000
17	450	$ 4,905,000	$ 2,970,000	$ 7,875,000
18	450	$ 4,995,000	$ 3,015,000	$ 8,010,000
19	450	$ 5,130,000	$ 3,105,000	$ 8,235,000
20	450	$ 5,265,000	$ 3,195,000	$ 8,460,000
21	450	$ 5,400,000	$ 3,240,000	$ 8,640,000
Total	9,201	$ 87,772,500	$ 52,744,500	$ 140,517,000

Note: Assumes 2.5% annual increases

7. POTENTIAL FUNDING AND FINANCING SOURCES

The current funding alternatives for the Lead Service Line Replacement Plan include, but are not limited to the following:

A. CWLP Funds & Grants/ IEPA SRF Loans with 100% principal forgiveness:

- Replace CWLP owned lead service lines with CWLP's existing capital improvement budgeted funds. These funds are included in the existing water rate structure. This cost is estimated to be approximately $52,744,500 over the next 21 years.
- Replace customer owned lead or galvanized service lines previously downstream of lead with IEPA SRF Loans with 100% principal forgiveness, remaining ARPA Funds or other State or Federal Grants. This cost is estimated to be approximately $87,772,500 over the next 21 years.

B. CWLP Funds & IEPA SRF Loans with no principal forgiveness:

- Replace CWLP owned lead service lines with CWLP's existing capital improvement budgeted funds. These funds are included in the existing water rate structure. This cost is estimated to be approximately $52,744,500 over the next 21 years.
- Replace customer owned lead or galvanized service lines previously downstream of lead with IEPA SRF Loans payable over 40 years with a below market interest rate. This cost is estimated to be approximately $87,772,500 over the next 21 years.

C. CWLP Funds & CWLP finances customers replacement over a 5 year period:

- Replace CWLP owned lead service lines with CWLP's existing capital improvement budgeted funds. These funds are included in the existing water rate structure. This cost is estimated to be approximately $52,744,500 over the next 21 years.

- Replace customer owned lead or galvanized service lines previously downstream of lead with CWLP financing the customer's portion of the project, but customer repaying CWLP back monthly over a 5 year period. CWLP will fund any city roadway restoration costs associated with this work. This cost is estimated to be approximately $87,772,500 over the next 21 years.

D. Grants/ IEPA SRF Loans with 100% principal forgiveness:

- Replace both CWLP owned lead service lines and customer owned lead or galvanized service lines previously downstream of lead with IEPA SRF Loans with 100% principal forgiveness or other State or Federal Grants. This cost is estimated to be approximately $140,517,000 over the next 21 years.

Note: All Contracts for Lead Service Line Replacements will follow the City of Springfield Minority and Female-Owned Business Enterprise Policy and Chapter 38 of City Code as relates to Equal Employment Opportunity and Affirmative Action. All Contracts with State funding shall follow the same City policies in addition to any additional measures to encourage diversity in hiring in the workforce as identified in 415 ILCS 5/17.12 under subsection (n).

8. ENVIRONMENTAL IMPACTS

A. Primary Environmental Impacts: - Construction of any of the feasible process alternatives would result in similar primary environmental construction impacts. Those impacts would include: construction dust, soil erosion, and noise. These primary environmental impacts would be minimized as follows:

1) *Construction Dust* - Appropriate measures will be taken to minimize dust from construction operations.
2) *Soil Erosion* - Construction erosion control procedures will be consistent with the latest edition of the Illinois Urban Manual as prepared by the U.S. Department of Agriculture - Natural Resource Conservation Service. Re-seeding and restoration of disturbed areas will be conducted as soon as possible after substantial completion.
3) *Noise* - Construction noise control procedures will be conducted so that noise emanating from the work site will not exceed legal noise levels.

B. Secondary Environmental Impacts: - At this time, no secondary environmental impacts are known or anticipated.

C. Environmental Checklist: A complete and executed copy will be submitted upon receipt of environmental signoffs from the following agencies:

1) Illinois State Historic Preservation Agency - State Agency Historic Preservation Act of 1990, and the National Historic Preservation Act, Part 106.

2) Illinois Department of Natural Resources

- Illinois Lakes, Rivers, and Streams Act
- Rare and Endangered Species Act, the Natural Areas Preservation Act, and the Wetlands Policy Act

3) *Illinois Department of Agriculture* – Conversion of Prime Agricultural Land.

4) *U.S. Army Corps of Engineers* - Federal Clean Water Act, Section 404 Permit

9. IMPLEMENTATION

Anticipated major milestones for the proposed project schedule is as follows:

1	*Plan and Specification Submission on or before*	*March 31, 2025 (annually)*
2	*Advertisement for Bids on or before*	*June, 2025 (annually)*
3	*Initiation of on Site Construction on or before*	*August, 2025 (annually)*
4	*Completion of Construction on or before*	*April 15, 2037*

10. IEPA PERMITTING

The replacement of lead 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 case of a water main construction project serving more than one (1) customer the City has delegation authority and will follow all applicable rules and regulations.

11. SCOPE IDENTIFICATION and SUMMARY

Proposed General Solution: - The City has evaluated the need to replace all lead service lines in our system and has elected to replace all lead services lines over the next 21 years.

A. Proposed Project Location: - The proposed project is located throughout the City of Springfield in areas developed prior to 1930 (see Appendix A).

B. Proposed Upgrade: - In general, the proposed upgrade will be in concert with current Federal and State of Illinois regulations and Public Health best practices.

C. This report, will be updated annually prior to April 15th and will be made available on the CWLP website at www.cwlp.com. Questions or comments can be emailed directly to publicinformation@cwlp.com. Public comments on the plan is encouraged. CWLP utility issues are discussed at City Council meetings at 5:30 p.m. on the first and third Tuesdays of each month and at the Council Committee of the Whole meetings held at 5:30 p.m. on the Tuesday of each week prior to a City Council meeting. These meetings are open to the public and are held in the City Council chambers on the third floor of Municipal Center West, 300 S. 7th Street.

12. CONCLUSIONS

This proposed lead service line replacement plan will allow the City of Springfield to meet the Lead Service Line Replacement and Notification Act, HB3739. The project will help minimize the risk of consumer exposure to lead through drinking water. The project will follow all State of Illinois statutory laws.

END OF PROJECT PLAN

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