(IL0312310) Village of Orland Park

Draft Lead Service Line Replacement Plan

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July 2024

Village of Orland Park
Lead Service Line Replacement Plan
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LIST OF DEFINITIONS & ABBREVIATIONS

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a CWS must follow. The current Action Level for lead is 15 parts per billion, in accordance with the Lead and Copper Rule.[2]

Community Water System/Supply (CWS): A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.[2]

Corrosion Control Treatment (CCT): A treatment that utilizes a corrosion inhibitor which is a substance that can reduce the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.[3]

Emergency Repair: Any unscheduled water main, water service, or water valve repair or replacement that results from failure or accident.[1]

Full Lead Service Line Replacement (LSLR): Replacement of a lead service line (or galvanized service lines requiring replacement) that results in the entire length of the water service line, regardless of ownership, being free of lead.[2] A full lead service line replacement could leave a lead service line in place in the ground but out of service if using a new non-lead service line.[3]

Galvanized Requiring Replacement (GRR): A galvanized service line that is or ever was downstream of a lead service line or is currently downstream of a lead status unknown service line.[3]

Note: Galvanized water service lines have a rough interior surface. If the galvanized service line is or has been in contact with lead, then it likely has lead particulate that has settled on the interior surface.

Galvanized Service Line: A water service line that is made out of iron or steel piping zinc-dipped to prevent corrosion and rusting.[3]

Illinois Lead Service Line Replacement and Notification Act (ILSLRNA): Illinois law requiring CWS to create a water service line material inventory, create a LSLR Plan, provide notice to potentially affected building occupants, prohibit partial LSLR, and disconnect LSLs from the drinking water supply.[1]

Lead: A naturally occurring element found in small amounts in the earth's crust; while it has some beneficial uses, it can be toxic to humans and animals, causing health effects.[2]

Lead and Copper Rule (LCR): Federal law established by USEPA to protect public health and reduce exposure to lead and copper in drinking water.[2]

Lead Service Line (LSL): A water service line made of lead or water service line connected to a lead pigtail, lead gooseneck, or other lead fitting.[1]

Lead Status Unknown Service Line: A water service line that a CWS has yet to identify as lead, galvanized requiring replacement, or non-lead material. The service line material may also be designated as Unknown.[3]

Non-Lead Service Line: A water service line that a CWS has determined through an evidence-based record, method, or technique is non lead or galvanized requiring replacement. The service line material may also be designated using its actual material of construction (e.g., plastic, copper, ductile iron, etc.).[3]

Safe Drinking Water Act (SDWA): A federal law that regulates the nation's public drinking water supply to protect public health. The Act has been revised multiple times since its enactment in 1974, the last revision occurring in 2018. In 1986, Congress amended the SDWA to ban the use of lead pipe, flux, and solder. There was a two-year implementation period after Congress banned the use of lead pipe. For the purpose of the LSLR Plan, 1988 will be used as the year lead pipe was banned.

Solder: A type of metal that is used to join metal parts such as sections of pipe, without melting the existing metal in the parts to be joined.[2]

Suspected Lead Service Line: A water service line that a CWS finds more likely than not to be made of lead than not.[1]

Trigger Level (TL): The concentration of lead which, if exceeded, triggers notification, water quality sampling and replacement requirements which a CWS must follow. Effective October 16, 2024, the Trigger Level for lead is 10 parts per billion, in accordance with the Lead and Copper Rule Revisions.[2]

Unknown Not Lead Service Line: A water service line that a CWS has been unable to determine the material of, however has determined the building/property was developed after Congress banned the use of lead pipe in 1988 and/or the service line diameter is greater than 2-inch and therefore can safely assume the service line is not made of lead.

Water Main: A pipe that conveys water to a connector or customer's water service line. In residential areas, it is usually located underground.[2]

Water Service Line: Piping, tubing, and necessary appurtenances acting as a conduit from the water main or source of potable water supply to the building plumbing at the first shut-off valve or 18 inches inside the building, whichever is shorter.[1]

Water Service Line Material Inventory: A water service line inventory developed by a community water supply under this Act that identifies the material of each water service line.[1]

Water Service Line Ownership: Lead service line ownership is shared between the CWS and the property owner. The CWS maintains the service line from the water main up to the b-box (exterior shut-off valve); from the b-box into the building to the first interior shut-off valve or 18-inches (whichever is shorter) is the homeowner's responsibility.

References:

1. Defined in accordance with the Illinois Lead Service Line Replacement and Notification Act
2. Defined in accordance with the U.S. Environmental Protection Agency (USEPA)
3. Defined in accordance with the General Assembly's Illinois Administrative Code

EXECUTIVE SUMMARY

Under the Illinois Lead Service Line Replacement and Notification Act (ILSLRNA) and US Environmental Protection Agency's (EPA) Lead and Copper Rule Revisions (LCRR), the Village of Orland Park (Village) is tasked with facilitating the replacement of all lead and galvanized requiring replacement (GRR) water service lines connected to its drinking water supply. The purpose of a Lead Service Line Replacement (LSLR) Plan is to identify and locate lead and GRR water service lines, develop strategies to facilitate the replacement of such water service lines, identify funding mechanisms for replacements, and develop design and construction criteria for executing replacements.

The Village has 24,260 service lines within its corporate limits and is actively working to identify the material of each water service line. At this time, the Village has identified 4 lead water service lines and 14 galvanized steel service lines. Note that the galvanized service lines identified below do not automatically require replacement and additional investigation may be required by the Village to determine if a galvanized service line requires replacement. For the purpose of this plan, the 14 galvanized steel service lines are deemed to require replacement. The table below highlights the inventory efforts of the Village since 2020, including remaining unknowns, identified, and replaced lead and GRR water service lines.

Water Service Lines Requiring Replacement and Replaced to Date

Year	Total Water Service Lines	Unknown Material	Known LSLs/Galvanized	Replaced Lead
2020	23,877	603	0	0
2021	23,877	603	0	0
2022	24,265	0	0	0
2023	24,260	0	18	0

At this time, the Village is estimating that it will have 4 lead water service lines and approximately 14 galvanized steel service lines, with 18 service lines in total anticipated to be replaced. Under ILSLRNA, the Village intends to replace all lead water service lines by 2042, with replacements scheduled to begin in 2027. At a required replacement rate of 7% per year, the Village is required to facilitate the replacement of 2 lead or galvanized water service lines annually. The replacement schedule as shown in the table below includes a one-year, 5-year, and 10-year goals which accumulates the total replacements to be completed by that designated year.

Service Line Replacement Schedule

IEPA Goal Years	Completion Year	Known LSLs/Galvanized	Cumulative Required Replacements	Non-Lead	Total Service Lines
	2026	18	0	24,242	24,260
Year One	2027	16	2	24,244	24,260
5-Year	2031	8	10	24,252	24,260
10-Year	2036	0	18	24,260	24,260

Note: Non-lead water service lines have been identified as copper, plastic, galvanized, cast iron, ductile iron or transite.

At this time, the Village is estimating that the total cost to replace all 18 lead and galvanized water services lines will be $340,000, with an annual estimated cost of $38,000 starting in 2027. At this time, the Village of Orland Park is assessing what funding programs and local revenue sources will minimize the debt service and overall financial impact on the Village and its consumers.

The Village of Orland Park will post this Draft Lead Service Line Replacement Plan online at www.orlandpark.org at the time of their first draft LSLR Plan submittal to Illinois Environmental Protection Agency (IEPA) by April 15, 2024. The Village will provide opportunity for public comment before the final LSLR Plan is due on April 15, 2027.

This draft LSLR Plan is pursuant to the ILSLRNA and U.S. Environmental Protect Agency's (US EPA) Lead and Copper Rule Revisions (LCRR). While USEPA has released the proposed Lead & Copper Rule Improvements (LCRI), the LCRI is not yet final and is not considered as a part of this draft LSLR Plan. The LCRI is anticipated to be finalized by October 2024, and the Village will update future draft LSLR Plans as required by the ILSLRNA, LCRR and LCRI.

1. INTRODUCTION

In accordance with the Illinois Lead Service Line Replacement and Notification Act (ILSLRNA), Public Act 102-0613 (415 ILCS 5/17.12), every Community Water System (CWS) with known lead, suspected lead, galvanized requiring replacement (GRR), or lead status unknown water service lines must create a Lead Service Line Replacement (LSLR) Plan. The purpose of the LSLR Plan is to identify and locate lead and galvanized requiring replacement service lines, develop strategies to facilitate the replacement of such water service lines, identify funding mechanisms for replacements, and develop design and construction criteria for executing replacements.

The Village of Orland Park has 24,260 water service lines connected to the Village's water distribution system. Of those, the Village has identified 4 lead water service lines and 14 galvanized steel service lines. Note that the galvanized service lines identified below do not automatically require replacement and additional investigation may be required by the Village to determine if a galvanized service line requires replacement. For the purpose of this plan, the 14 galvanized steel service lines are deemed to require replacement. The Village must submit their first draft LSLR Plan to the Illinois Environmental Protection Agency (IEPA) by September 1, 2024. After which, IEPA will review and provide comments back to the Village. After subsequent draft submissions to IEPA, the Village will submit their final LSLR Plan by April 15, 2027.

Since 2020, the Village has been working to identify the material of water service lines and has been reporting materials to IEPA annually. Table 1 below provides a breakdown of total water service lines, including unknown, known lead, and replaced lead water service lines within the Village since 2020.

TABLE 1

Water Service Lines Requiring Replacement and Replaced to Date

Year	Total Water Service Lines	Unknown Material	Known LSLs/Galvanized	Replaced Lead
2020	23,877	603	0	0
2021	23,877	603	0	0
2022	24,265	0	0	0
2023	24,260	0	18	0

This draft LSLR Plan is pursuant to the ILSLRNA and U.S. Environmental Protect Agency's (US EPA) Lead and Copper Rule Revisions (LCRR). While USEPA has released the proposed Lead & Copper Rule Improvements (LCRI), the LCRI is not yet final and is not considered as a part of this draft LSLR Plan. The LCRI is anticipated to be finalized by October 2024, and the Village will update future draft LSLR Plans as required by the ILSLRNA, LCRR and LCRI.

2. SYSTEM OVERVIEW

2.1 Location & Customer Base

The Village of Orland Park is located in Cook and Will Counties and is approximately 25 miles southwest of Chicago, Illinois. According to the 2020 Census, the Village covers 22.3 square miles and serves 58,703 customers. Figure 1 shows the Village's municipal boundary.

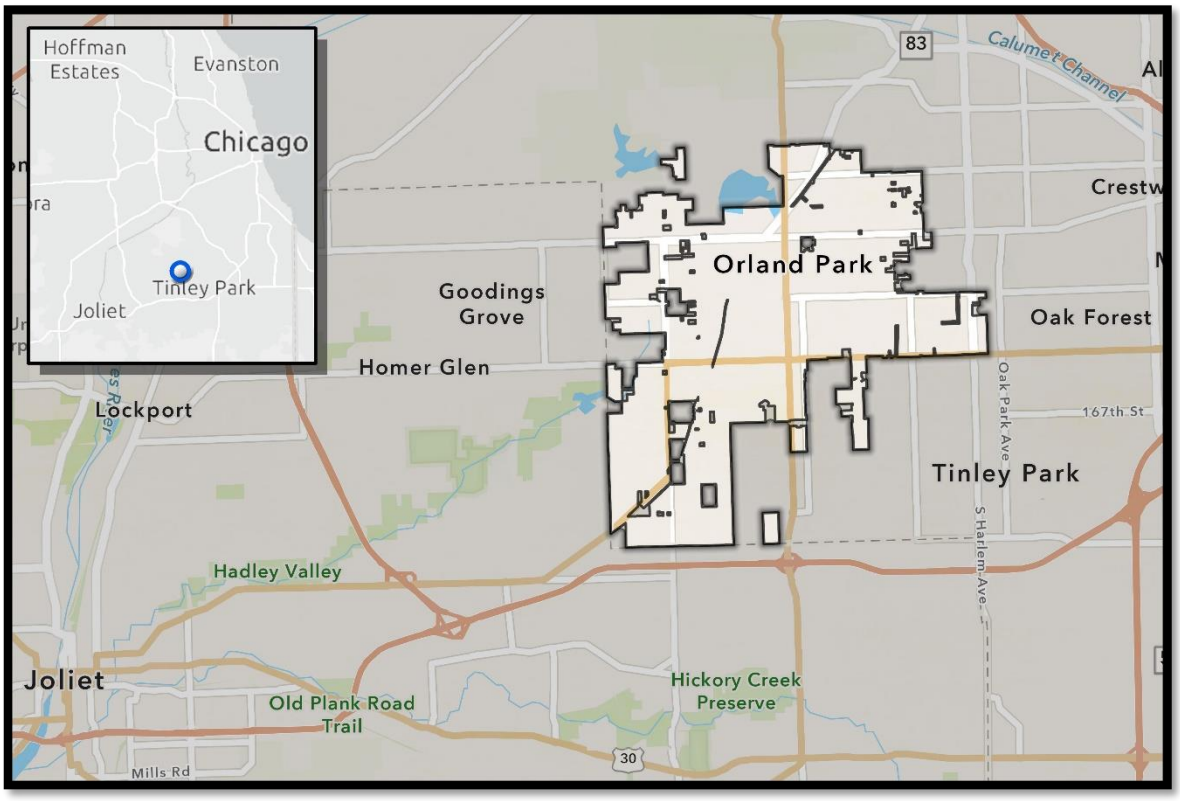


Figure 1: Village of Orland Park Municipal Boundary

The Village of Orland Park provides water service to customers within the limits of the municipal boundary of the Village. This draft LSLR Plan will pertain only to water service lines within the municipal limits of the Village.

Understanding the demographics and characteristics of Village of Orland Park's customer base assists the Village with the planning of future replacements and public engagement needs. Approximately 26% of the Village is non-English speaking, with the most common language spoken other than English being Arabic.

2.2 Water System Overview

The Village of Orland Park owns and operates a public distribution system that includes its main pumping station, seven elevated storage tanks, and three booster stations. The Village water system is supplied water at its main station by the Village of Oak Lawn, who purchases water from the

Chicago Department of Water Management (CDWM). CDWM treats Lake Michigan water primarily with gravity filtration and chlorine disinfection. Additionally, CDWM has a Corrosion Control Treatment (CCT) program. To prevent lead and copper from leaching into drinking water, CDWM adds a blended mix of polyphosphate and orthophosphate to the water at the treatment plant. The blended mix prevents corrosion by forming a protective coating inside the pipes throughout the distribution system. Note that in the Orland Ridge subdivision, water is supplied by Illinois American Water.

Additionally, the Village performs regular testing for lead throughout the distribution system. Currently, the Village samples for lead at approximately 60 sites. Results from the most recent rounds of testing are shown below in Table 2. The Village of Orland Park is in full compliance with IEPA and USEPA, which requires a community to be below an Action Level of 15 parts per billion at the 90th percentile. For reference, if a community were to sample at 10 locations and order the sample results from these locations from least to greatest, the 90th percentile would be the 9th highest sample result.

TABLE 2

Lead Sampling Results by Year

Year	No. of Sites	Action Level (AL) (parts per billion)	90th Percentile (parts per billion)	No. of Sites over AL
07-2023	60	15	1.06	0
01-2023	60	15	1.01	0
2020	60	15	0	0
2017	60	15	0	0

The Village also publishes their annual water quality report (also known as a Consumer Confidence Report) on the Village's website by July of each year. This report provides additional information on the Village's source water, any contaminants found in the water and ways residents may get involved to protect drinking water.

2.3 Future Service Area

At this time, the Village of Orland Park does not anticipate any annexations or planned future expansion. As such, the Village is not anticipating any significant changes to the number of water service lines in town.

3. LEAD SERVICE LINE REPLACEMENTS

Under the ILSLRNA and the federal LCRR, the Village is required to facilitate the full replacement of lead and GRR water service lines. The ILSLRNA requires lead and GRR water service lines be replaced if they are disturbed (repaired) or, beginning in 2027, at a designated rate of replacement each year until all lead and GRR water service lines are completely removed. The LCRR requires lead and GRR water service lines be replaced at a designated rate based upon the sample results of a CWS's lead sampling.

3.1 Water Service Line Material Inventory

A comprehensive water service line material inventory includes compiling a list of locations of each active water service line within the Village and identifying the material type for both the public side (from the watermain to the b-box/exterior shut-off valve) and the private side (from the b-box to into the building/interior shut-off valve). The water piping inside of the building after the interior shut-off valve is deemed plumbing. Internal plumbing is the full responsibility of the property owner. Figure 2 below illustrates the shared responsibility of a water service line in the Village.

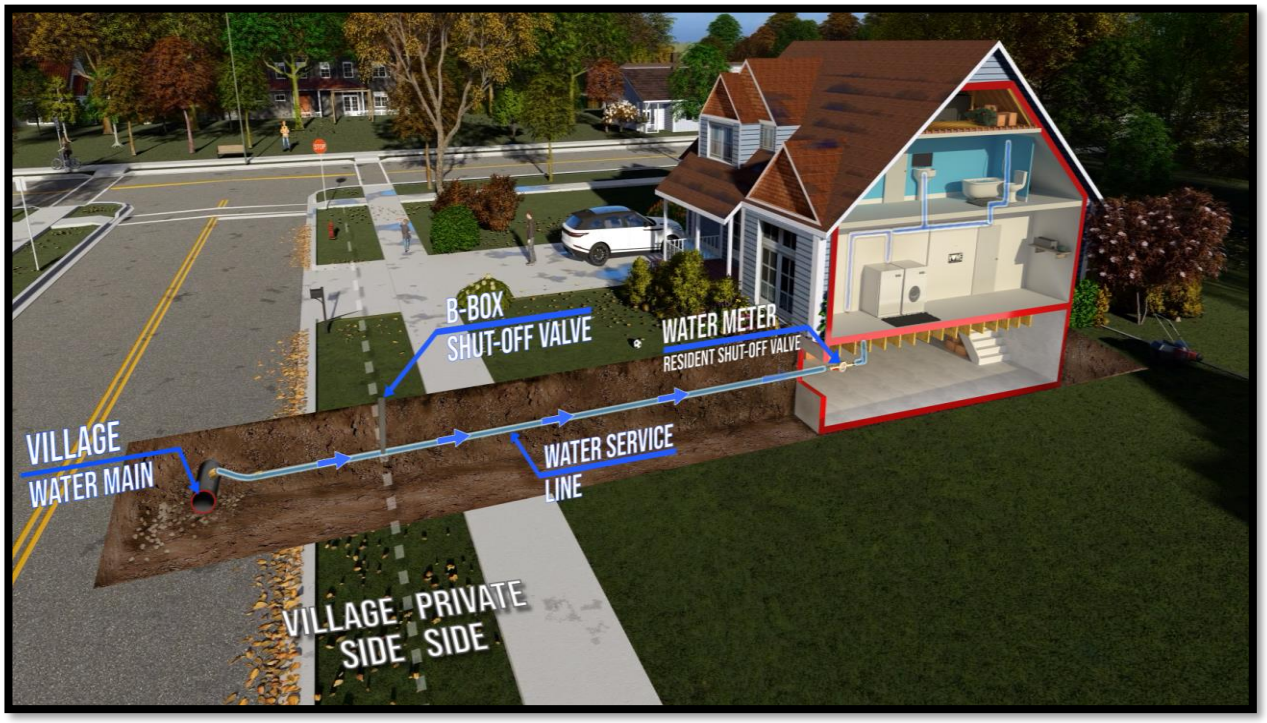


Figure 2: Water Service Line Ownership

At this time, the Village of Orland Park has identified the material of all 24,260 water service lines within their distribution system. Table 3 provides a breakdown of identified materials for both for both the Village side (Village owned and maintained) and the private side (property owner owned and maintained).

TABLE 3
Service Line Material Inventory
Updated February 2024

Service Line Material	Village Side	Private Side
Lead	0	4
Unknown Material	0	0
Galvanized Steel	0	14
Copper without Lead Solder	24,260	24,242
Cast/Ductile Iron or Transite	0	0
Plastic	0	0

3.1.1 Material Inventory Methodology and Continuing Efforts

When completing the water service line material inventory, a CWS is to utilize, at minimum, the following methods to complete the identification of pipe material types:

- Review of historical documentation, such as as-builts, permits information, construction records, or subdivision plans
- Visual inspection during distribution system maintenance
- Utilize known installation time periods for when lead was or was not installed
- Discuss with staff, contractors, or local plumbers who have worked on service lines connected to the distribution system

Note that under the ILSLRNA and LCRR, the Village is not required to excavate water service lines to determine their material. However, certain circumstances may warrant the Village to complete more invasive methods, such as excavation, on a case-by-case basis.

3.2 Replacement Schedule

The Village anticipates having a total of 18 lead and galvanized service lines. Note that the galvanized service lines identified below do not automatically require replacement. Additional investigation may be required by the Village to determine if a galvanized service line requires replacement. Water service lines that have been identified as lead or galvanized to date are shown below in Figure 3. Appendix A shows all service line material types throughout the Village.

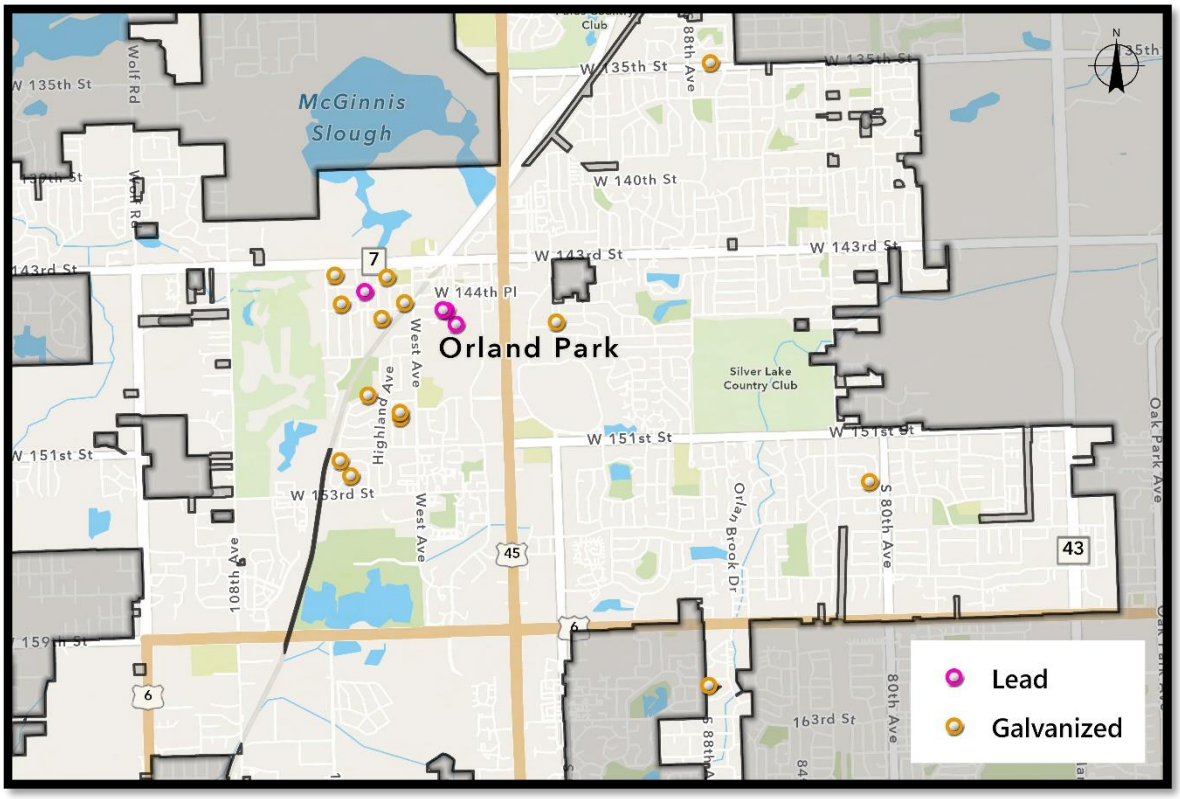


Figure 3: Village of Orland Park Identified Lead Service Line Locations

3.2.1 Federal Replacement Schedule

Per the LCRR, the Village must initiate lead and GRR water service line replacements based upon the results of the water sampling conducted throughout the distribution system at specified locations/properties approved by the state's primacy agency (agency responsible to ensure that a CWS meets all national drinking water regulations). The Village is required to respond under the LCRR if the following occurs:

- **Exceedance of Trigger Level:** In the event that the Village has an exceedance of 10 parts per billion at the 90th percentile, the Village must recommend a goal replacement rate. The Village will aim to replace 3% of lead and GRR water service lines annually, until the Village no longer exceeds the Trigger Level.

  Note that a replacement goal rate is only for CWS's that serve more than 10,000 people.

- **Exceedance of Action Level:** In the event that the Village has an exceedance of 15 parts per billion at the 90th percentile, the Village must begin annual lead and GRR water service line replacements at a rate of 3% per year.

The above requirements become effective October 2024, however, are superseded by Illinois required rate of lead and GRR water service line replacements starting in 2027, as described in

Section 3.2.2 Illinois Replacement Schedule. Additionally, the LCRR requirements are subject to change with the proposed LCRI requirements. For the purposes of this draft LSLR Plan, only the LCRR has been considered.

3.2.2 Illinois Replacement Schedule

Per the ILSLRNA, the State of Illinois has set annual replacement rates based on the number of lead and GRR water service lines a community has identified. Table 4 below shows the tiered rate of replacement per the LSLRNA.

TABLE 4

Lead Service Line Replacement Rate Requirements
Per Public Act 102-0613

Total Lead and GRR Service Lines	Annual Replacement Rate	Timeline (years)	Completion Year
0-1,200	**7%**	**15**	**2042**
1,201-4,999	6%	17	2044
5,000-9,999	5%	20	2047
10,000-99,999	3%	34	2061
100,000+	2%	50	2077

Based on the number of lead water service lines identified, the Village of Orland Park will be required to meet a 7% annual rate of replacement starting in 2027. Under the ILSLRNA, the Village will work to maintain this replacement rate and verify, at set goal years, that completed replacements are on schedule. Table 5 below indicates the anticipated replacements schedule based on the estimated 18 lead and galvanized service lines.

TABLE 5

Mandatory Lead Service Line Replacement

IEPA Goal Years	Completion Year	Known Lead	Cumulative Required Replacements	Non-Lead	Total Service Lines
	2026	18	0	24,242	24,260
Year One	2027	16	2	24,244	24,260
5-Year	2031	8	10	24,252	24,260
10-Year	2036	0	18	24,260	24,260

At this time, the Village will need to replace a minimum of 2 water service lines each year to meet the required rate of replacement.

3.3 Prioritization of Lead Service Line Replacements

The Village first intends to prioritize the replacement of lead water service lines at facilities that serve populations most sensitive to the effects of lead. Facilities that have a higher likelihood to serve children and/or pregnant women have been identified in Section 3.3.1 High-Risk Facility Replacements below, in accordance with the ILSLRNA and LCRR.

3.3.1 High-Risk Facility Replacements

High-risk facilities, as described by the ILSLRNA, are facilities such as preschools, day care centers, day care homes, parks and playgrounds, hospitals, and clinics. The Village has identified 170 high-risk facilities, none of which have a known lead water service line. Table 6 shows the number and type of high-risk facilities identified in the Village.

TABLE 6

Lead Service Lines by High-Risk Facility Type
Updated March 2024

High-Risk Facilities	No. of Facilities	Reported Lead	Unknown Material
Preschool/Day Care Facility	10	0	0
Elementary School (K – 5th Grade)	8	0	0
Secondary School (6th – 12th Grade)	8	0	0
Women, Infants and Children (WIC) and Head Start programs	0	0	0
Medical Facility	47	0	0
Local welfare agencies (shelters)	1	0	0
Community Centers	8	0	0
Places of worship	16	0	0
Parks and playgrounds	72	0	0

Note:

1. For the purpose of this Plan, hospitals, emergency care, clinics, pediatricians, obstetricians-gynecologists, and midwives were considered medical facilities.

3.3.2 Future Replacement Planning

Beginning in 2027, the Village will be required to replace an estimated 1 water service line each year. The Village is considering the following ways to prioritize lead service lines replacements:

- **Census Tracts** – In an effort to prioritize disadvantaged consumers, the Village is considering prioritizing areas of town based upon census tract information.

- **Presence of Children** - Children under the age of six and pregnant women are the most susceptible to the health effects from lead exposure. The Village is considering prioritizing

areas of town where the Village anticipates higher concentrations of children, such as near elementary schools or parks/playgrounds.

- **Lead and GRR Water Service Line Locations** – In an effort to reduce the mobilization costs related to moving construction efforts throughout a community, the Village will work to minimize the limits of each year's replacement project by focusing on areas of town with higher concentrations of lead and GRR water service lines.

- **Future CIP Projects** – The Village will continue to plan other CIP projects based on community needs. As CIP projects are developed, the Village may coordinate lead and GRR water service line replacements within the limits of these projects.

4. FINANCING LEAD SERVICE LINE REPLACEMENTS

The ILSLRNA and the LCRR do not require a CWS to finance the full replacement of a lead or GRR water service line. As described under Section 3.1 Water Service Line Material Inventory, maintaining a water service line is a shared responsibility between the Village and the property owner. The Village is currently assessing what funding options are available for both the Village and property owners. Different funding sources have different requirements associated with utilizing those funds and impact the Village and their consumers in different ways.

4.1 Water Service Line Replacement Cost Analysis

In recent years, the water industry has seen an increase in replacement costs for lead and GRR water service lines, mostly due to an increase in material costs and contractor availability. Additionally, each water service line requiring replacement is unique and dependent on the constraints of an individual property. Interior and exterior restoration efforts may vary from property to property, even within the same area of the Village. Due to this, an average construction cost ranging from $12,000 to $15,000 for the full water service line replacement (from water main to inside the property to the first interior shut-off valve or 18-inches, whichever is shorter) was used for the purpose of this draft LSLR Plan. This cost range is based on replacements completed within the Chicagoland area during 2022 and 2023.

Table 7 provides a cost estimate range to replace all lead water service lines in their entirety throughout the Village.

TABLE 7

Estimated Cost Range to Replace All LSLs
Updated February 2024

Full Water Service Line Replacements	Replacement Cost Estimate (2024 Dollars)	
	Low Range	High Range
4 Lead Service Lines	$48,000	$60,000
14 Galvanized Service Lines	$168,000	$210,000
Design Engineering (5%)	$11,000	$14,000
Construction Engineering (8%)	$17,000	$22,000
Engineering & Construction Sub Total:	$244,000	$306,000
Contingency (10%)	$24,000	$31,000
Replacement Total:	**$270,000**	**$340,000**
Estimated Annual Replacement Cost	**$30,000**	**$38,000**

For budgetary purposes, design engineering, construction engineering, and a contingency were included in the cost estimate. Design and construction engineering efforts will vary significantly, depending on if the Village is using Village staff or a consultant and whether a water service line is being replaced as a part of an existing CIP project or a stand-a-lone lead water service line replacement program. At this time, the Village is estimating that the total cost to replace all 4 lead and 14 galvanized steel water service lines will be between $270,000 and $340,000, with an annual estimated cost of $30,000 to $38,000 beginning in 2027.

4.2 Current Funding Considerations

Understanding the various funding mechanisms available is crucial for the Village to begin planning future replacements and sequencing replacement work with other infrastructure projects. Funding sources may include, but are not limited to:

- Federal loan and grant programs
- State loan and grant programs
- County grant programs
- Local revenue sources, such as water and sewer rates

The Village's eligibility to obtain funds from any of the above sources will be dependent on the requirements of that funding source. At this time, the Village of Orland Park is assessing what funding programs and local revenue sources will minimize the debt service and overall financial impact on the Village and its consumers.

In the event that the Village implements a cost-share program with property owners, the Village understands that consideration needs to be given to how funds will be obtained from the property owner. The following is a list of options, but is by no means all inclusive:

- Request property owner to pay at or before replacement occurs.
- Rebate property owner after replacement occurs.
- Provide a payback period for the property owner utilizing water billing or other method.
- Provide a differed loan to property owner, until either the property is refinanced or sold.

5. REPLACMENT PROCEDURES

Under the ILSLRNA, partial lead and GRR water service line replacement is prohibited, except in the event a property owner has denied access. As described under Section 3.1 Water Service Line Material Inventory, maintaining a water service line is a shared responsibility between the Village and the property owner. To facilitate and complete the replacement of the entire water service line, from the water main to the first interior shut-off valve or 18-inches within the property, work is completed both within the Village right-of-way as well as on private property.

A lead or GRR water service line replacement shall be completed in accordance with the ILSLRNA, LCRR, Illinois Plumbing Code and Village ordinances. Requirements vary depending on if the Village or the property owner initiates replacements.

5.1 Community-Initiated Replacement Procedure

When the Village initiates the replacement of a lead service line, whether planned or during emergency maintenance efforts, the Village must follow specific procedures during the bidding process, resident notification process and at time of construction. Below identifies the various replacement scenarios. These procedures are based on current state and federal regulations.

5.1.1 Minorities, Women, and Persons with Disabilities Act

Per the ILSLRNA, the Village is to make a good faith effort to use contractors and vendors owned by minority persons, women, and persons with a disability for not less than 20% of the total contracts, as defined in Section 2 of the Business Enterprise for Minorities, Women, and Persons with Disabilities Act.

1. Contracts representing at least 11% of the total projects shall be awarded to minority-owned businesses.
2. Contracts representing at least 7% of the total projects shall be awarded to women-owned businesses.
3. Contracts representing at least 2% of the total projects shall be awarded to businesses owned by persons with a disability.

In order to meet the above standards, the Village will encourage bidders to post in the local newspaper in order to reach contractors and vendors owned by minority persons, women, and persons with a disability.

5.1.2 Scheduled Water Service Line Replacements

A scheduled replacement is when the Village has an upcoming project, such as a watermain replacement project, sewer replacement project, or a lead and GRR water service line replacement project, where lead or GRR water service lines are known or suspected and will be physically disturbed, requiring full replacement of the service line. Under these circumstances, the Village will complete the following:

1. At least 45 days prior to replacement, the Village or the Village's representative shall contact the property owner by written notice of the potentially affected service line to request access and permission to replace the lead or GRR water service line.
    a. If the property owner does not respond within 15 days, the Village shall post the request on the building entrance.
        i. If private side replacement is denied due to the property owner not granting access to the property, the Village will request that the property owner sign the Illinois Department of Public Health's (IDPH) Waiver of Complete Lead Service Line Replacement. The Village may continue with the replacement of the public side and continue with steps 2 through 5.
            1. If a property owner of a nonresidential building or residence operating as a rental property denies a complete water service line replacement, the property owner is responsible for installing and maintaining point-of-use filters at all fixtures intended to supply water for the purpose of drinking, food preparation or making baby formula. The filters must meet NSF/ANSI 53 and NSF/ANSI 42 for the reduction of lead.
        ii. If the property owner fails to respond, the Village shall notify IDPH within 30 days by filling out the Partial Lead Service Line Replacement – IDPH Notification Form. The Village may continue with the replacement of the public side and continue with steps 2 through 5.
2. At least 14 days prior to replacement, by mail/posted at entrance/electronically, the Village or the Village's representative shall notify the owner and occupants of the upcoming replacement. The notice will include the following information:
    a. The replacement of the lead or GRR water service line may result in a temporary increase in lead levels.
    b. Information on best practices to reduce lead in drinking water.
    c. Information regarding health dangers to young children and pregnant women.
3. The standard method of conducting full lead service line replacement shall be directional drilling, which will minimize the area disturbed by construction and reduce restoration costs. However, site conditions will vary and may require other construction methods, such as pulling a new water service line or performing open-cut replacement.
    a. When using directional drilling or the pulling construction method, a water service line may be replaced at or in close proximity to the same location of the existing lead or GRR water service line, even if water-sewer service separation requirements are not met, so long as the water service line is either encased or Type K Copper is used, and there is no observed leak on the sewer service per IDPH's Sewer/Water Service Separation Variance. In the event of open-cut replacement, if the water-sewer service separation requirements are not met, the water service will require encasement.
4. At the time of replacement, the Village shall provide the property owner with a Point-Of-Use Filter or Pitcher Filter meeting NSF/ANSI 53 and NSF/ANSI 42 requirements and provides up to 6-months of filtration.

5. Within 24 hours of replacement, the Village shall notify the owner and occupants of the executed replacement, including:
    a. The replacement of the lead or GRR water service line may result in a temporary increase in lead levels for the next six months.
    b. Information on best practices to reduce lead in drinking water, including the flushing procedures described in Section 5.3 Flushing Procedure After Lead Service Line Replacement.
    c. Information regarding health dangers to young children and pregnant women.
    d. Offer to have the property's water sampled for lead in the next 3 to 6 months by the Village or Village representative.

5.1.3 Emergency Water Service Line Repair and Replacements

An emergency replacement is when the Village disturbs a lead or GRR water service line during unplanned maintenance, such as a water main break or water service line leak. The Village may temporarily repair the lead service line and maintain water service, however by disturbing a lead service line, full replacement will then be required.

1. At the time work is initiated, by mail/posted at entrance/electronically, the Village shall notify the owner and occupants of the lead service line and provide a Point-Of-Use Filter or Pitcher Filter meeting NSF/ANSI 53 and NSF/ANSI 42 requirements until such time that the remaining portions of the service line have been replaced or replacement is waived. The notification shall include:
    a. The replacement of the lead or GRR water service line may result in a temporary increase in lead levels.
    b. Information on best practices to reduce lead in drinking water.
    c. Information regarding health dangers to young children and pregnant women.
    d. Information on how to use the provided water filter (pitcher or point-of-use).
    e. Information on the upcoming full water service line replacement and required coordination efforts.
2. From the time of the repair, the Village has 30 days, or 120 days in the event of weather or other circumstances beyond reasonable control that prohibits construction, to facilitate the full replacement of the lead or GRR water service line.
    a. If replacement is denied due to the property owner not granting access to the property, the Village will request that the property owner sign the Illinois Department of Public Health's (IDPH) Waiver of Complete Lead Service Line Replacement.
        i. If a property owner of a nonresidential building or residence operating as a rental property denies a complete water service line replacement, the property owner is responsible for installing and maintaining point-of-use filters at all fixtures intended to supply water for the purpose of drinking, food preparation or making baby formula. The filters must meet NSF/ANSI 53 and NSF/ANSI 42 for the reduction of lead.

   b. If the property owner fails to respond, the Village shall notify IDPH within 30 days by filling out the Partial Lead Service Line Replacement – IDPH Notification Form.
3. The remaining replacement procedures will follow steps 2 through 5 in Section 5.1.2. Scheduled Water Service Line Replacement.

5.2 Property Owner Initiated Replacement Procedure

When the property owner initiates the replacement of a lead service line, whether planned or during emergency maintenance efforts, the property owner and Village must follow specific procedures during, prior to, and at the time of replacement. These procedures are based on current state and federal regulations.

5.2.1 Scheduled Water Service Line Replacement

A scheduled replacement is when the property owner is planning to replace their lead or GRR water service line. This may be due to wanting to remove the lead or GRR water service line or may be due to other property improvements requiring an increase in size of their water service line. Under these circumstances, the property owner will complete the following:

1. The property owner must notify the Village at least 45 days before commencing work to replace the lead or GRR water service line.
2. The Village of Orland Park requires property owners to obtain a permit for water service line replacements, which can be initiated through the Village's Citizen Services portal or by contacting the Village's Community Development Department.
   a. The Village will provide the following information to a property owner intending to replace their lead or GRR water service line.
      i. The replacement of the lead or GRR water service line may result in a temporary increase in lead levels for the next six months.
      ii. Information on best practices to reduce lead in drinking water, including the flushing procedures described in Section 5.3 Flushing Procedure After Lead Service Line Replacement.
      iii. Information regarding health dangers to young children and pregnant women.

5.2.2 Emergency Water Service Line Repair and Replacement

An emergency replacement is when property owner disturbs their lead or GRR water service line during unplanned maintenance, such as water service line leak. The property owner may temporarily repair the lead or GRR water service line and maintain water service, however by disturbing the service line, full replacement will then be required. Under these circumstances, the property owner will complete the following:

1. The property owner must provide filters in each kitchen area. The filters must meet NSF/ANSI 53 and NSF/ANSI 42 requirements for the reduction of lead and particulate.
2. If the property owner notifies the Village of the completion of the emergency repair, the Village has 30 days, or 120 days in the event of weather or other circumstances beyond

reasonable control that prohibits construction, to complete the replacement of the public portion of the lead or GRR water service line.

a. At the time of the public side replacement, the Village will provide a Point-Of-Use Filter or Pitcher Filter meeting NSF/ANSI 53 and NSF/ANSI 42 requirements and provides up to 6-months of filtration. Additionally, the Village will provide notice to the property owner and occupants of the completed lead or GRR water service line replacement. The notice will include:
    i. The replacement of the lead or GRR water service line may result in a temporary increase in lead levels for the next six months.
    ii. Information on best practices to reduce lead in drinking water, including the flushing procedures described in Section 5.3 Flushing Procedure After Lead Service Line Replacement.
    iii. Information regarding health dangers to young children and pregnant women.
    iv. Offer to have the property's water sampled for lead in the next 3 to 6 months by the Village or Village representative.

5.3 Flushing Procedure After Water Service Line Replacements

At the time of a lead or GRR water service line replacement, lead particles can migrate into a property's plumbing during the construction effort. Due to this, it is strongly recommended that property owners flush out all of the plumbing within the property.

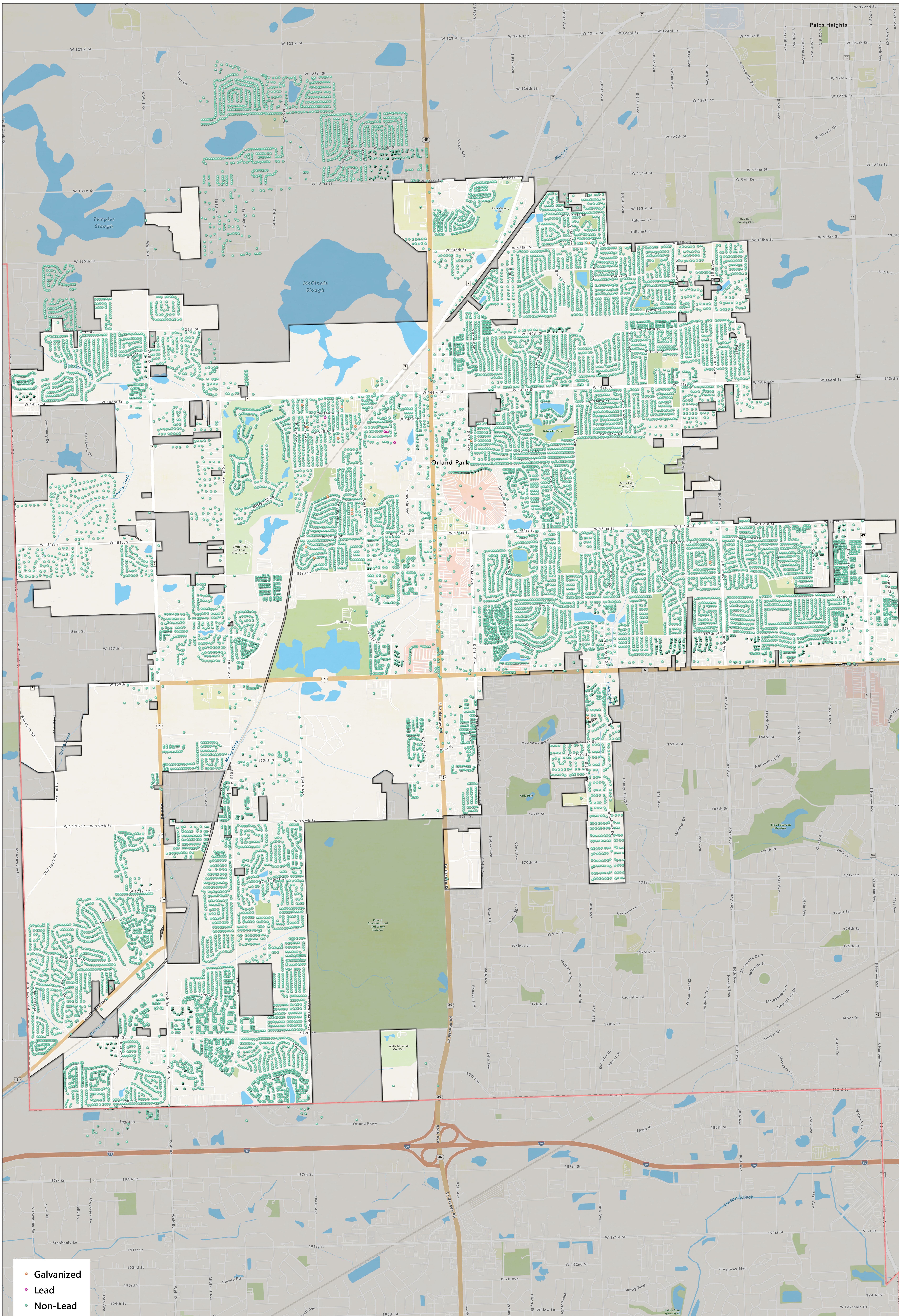
The following flushing instructions are in accordance with ANSI/AWWA C810-17 (First Edition) Replacement and Flushing of Lead Service Lines Section 4.4.2 "Flushing by the customer after lead service replacement". Property owners should follow the below flushing instruction the day of replacement or before water is used following a lead or GRR water service line replacement to reduce particulate lead. The steps below should be followed every two weeks for three months following replacement. Hot water should not be used until initial flushing is complete.

1. Locate all faucets in the building, including laundry tubs, hose-bibs, bathtubs, and showers.
2. Remove aerators and screens from faucets where possible, including showerheads.
3. Open faucets in the basement or lowest floor in the building. Using cold water, leave faucets running at the highest rate possible.
4. Open faucets on the next highest floor in the building, going from lowest level to the highest level in the building, until all faucets are open on all floors in the building.
5. Once all faucets are open, leave the water running for at least 30 minutes.
6. After 30 minutes, turn off faucets in the order they were opened.
7. Clean aerators or screens at each faucet.

APPENDIX A

Village of Orland Park Water Service Line Material Map

Appendix A - Water Service Line Material Inventory



July 11, 2024

BAXTER & WOODMAN Consulting Engineers