



WATERMAIN/LEAD SERVICE LINE REPLACEMENT DEVELOPMENT PLAN

Village of Whitefish Bay, Wisconsin
Public Works Committee Meeting
Monday, January 12, 2026

Water Distribution Infrastructure



- There are 47 miles of water main in Whitefish Bay
- 86% of all water mains in the Village are 80 years or older
- Each water main is expected to last 80 to 100 years
- There is a need to replace aging infrastructure in the next 40 years
- The Village plans to replace 1 mile of water main every year
- Private and public lead service lines will be updated during water main replacements
- Whitefish Bay has 4,798 service lines with 2,494 confirmed lead service lines and 1,537 suspected lead service lines

Water and Street Analysis

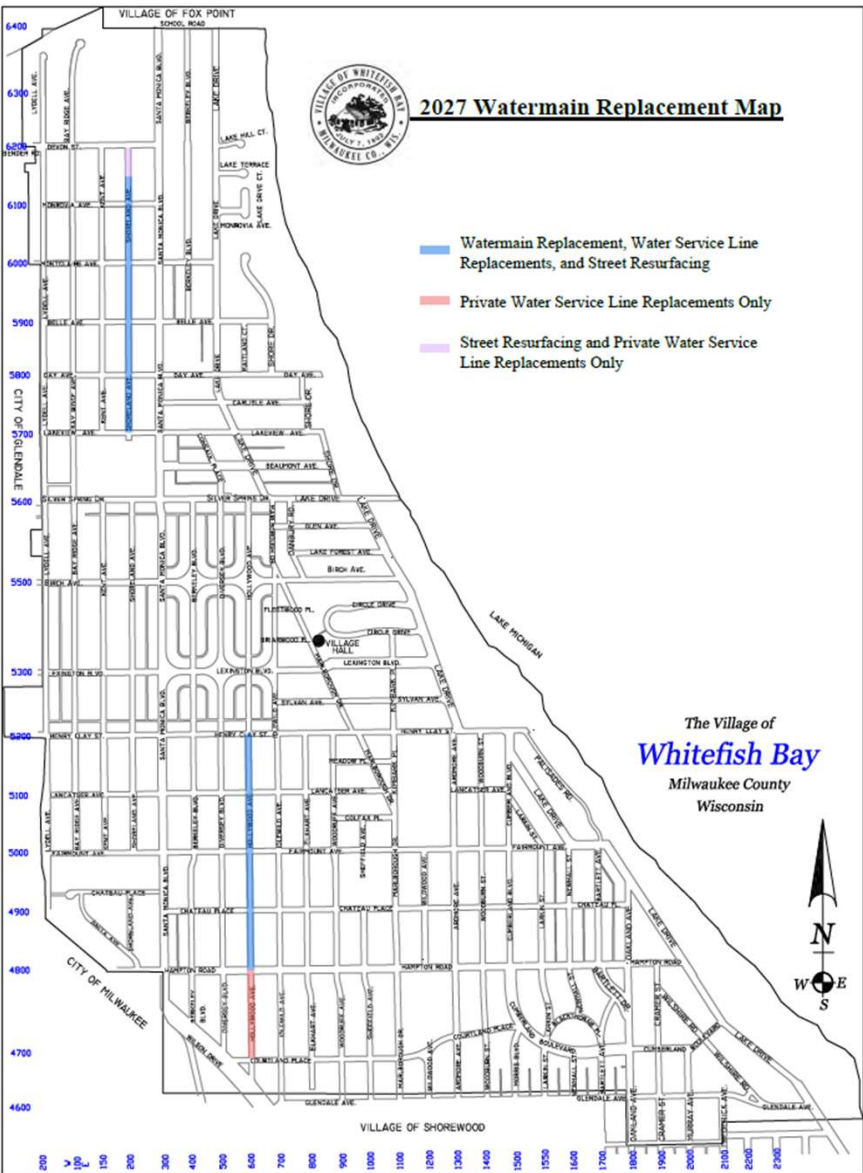
To determine the water main locations most eligible for replacement, our team considered several factors including:

- Road Ratings – 85%
 - Road condition, Paser Ratings
 - Average daily traffic
 - Road age & material (concrete/asphalt)
 - Constructability of project location
 - Depreciation Model
 - Restoration Cost Breakdown
- Water – 15%
 - Location, frequency, and date of water main breaks
 - Water main material
 - Water main age
 - Number of confirmed lead public & private service lines
 - Cost/LF
- Storm Laterals (Pending project area)
 - Existing Storm Lateral Inventory
 - Cost/LF



Watermain and Streets Analysis Matrix

			Replacement Scoring						VISLR DEPRECIATION													
ON_ROAD_NAME	AT_RTE_NM	TO_RTE_NM	10% Road Age, 10% ADT, 80% VISLR	5% Age, 5% Material, 5% Size, 15% Breaks, 65% Priv Lead	Road 85% / WM 15%	Length (LF)	Square Yardage	Area Designator	1+ N of SSD / 2+ S of SSD & N of Lane / 3+ S of Lancaster	MOST CURRENT VISLR Surface Rating	5-YR DEPRECIATION VISLR_Surf Rating	5-YR Road Replacement	10-YR DEPRECIATION VISLR_Surf Rating	10-YR Road Replacement	15-YR DEPRECIATION VISLR_Surf Rating	15-YR Road Replacement	20-YR DEPRECIATION VISLR_Surf Rating	20-YR Road Replacement	25-YR DEPRECIATION VISLR_Surf Rating	25-YR Road Replacement	10% Road Age, 10% ADT, 80% VISLR	
WOODRUFF AVEN	E Glendale Ave	E Courtland Pl	5.540	3.750	7.672	317	1162	3	3	4	2	6.540	1	7.340	0	7.940	0	7.940	0	7.940	0	7.940
BERKELEY BLVD N	E Lancaster Ave	E Henry Clay St	5.148	3.000	7.225	634	2254	2	4	3	6.148	2	6.948	1	7.748	0	8.348	0	8.348	0	8.348	
BERKELEY BLVD N	E Fairmount Ave	E Lancaster Ave	5.148	3.000	7.225	686	2439	3	4	3	6.148	2	6.948	1	7.748	0	8.348	0	8.348	0	8.348	
LAKE HILL CT E	STH 32	Termini	6.284	1.100	7.006	317	1021	1	3	1	7.284	0	7.884	0	7.884	0	7.884	0	7.884	0	7.884	
SHORELAND AVE N	E Montclair Ave	E Monrovia Ave	5.530	4.750	6.836	739	2463	1	3	2	6.530	1	7.330	0	7.930	0	7.930	0	7.930	0	7.930	
DEVON ST E	N Bay Ridge Ave	N Kent Ave	5.573	2.550	6.875	317	1268	1	3	2	6.573	1	7.373	0	8.273	0	8.273	0	8.273	0	8.273	
DEVON ST E	N Shoreland Ave	N Santa Monica Blvd	5.573	2.100	6.807	422	1698	1	3	2	6.573	1	7.373	0	8.273	0	8.273	0	8.273	0	8.273	
DEVON ST E	N Kent Ave	N Shoreland Ave	5.573	1.050	6.550	1096	264	1	3	2	6.573	1	7.373	0	8.273	0	8.273	0	8.273	0	8.273	
DEVON ST E	N Lydell Ave	N Bay Ridge Ave	5.750	1.050	6.545	317	1268	1	3	2	6.750	1	7.550	0	8.150	0	8.150	0	8.150	0	8.150	
IDLEWILD AVE N	E Birch Ave	N Marlborough Dr	5.18	4.550	6.533	168	562	2	4	3	6.18	2	6.918	1	7.718	0	8.318	0	8.318	0	8.318	
HAMPTON RD E	N Berkeley Blvd	N Diversey Blvd	4.627	7.000	6.483	370	2220	3	5	4	5.627	3	6.427	2	7.227	1	8.027	0	8.027	0	8.027	
SILVER SPRING DR E	N Hollywood Ave	N Marlborough Dr	5.440	2.100	6.433	211	1125	1	4	3	6.440	2	7.240	1	8.040	0	8.840	0	8.840	0	8.840	
SILVER SPRING DR E	N Concord Pl	N Hollywood Ave	5.440	2.100	6.433	317	1691	1	4	3	6.440	2	7.240	1	8.040	0	8.840	0	8.840	0	8.840	
VILDOOD AVE N (01)	E Chateau Pl	E Fairmount Ave	5.456	2.200	6.437	634	2395	3	3	2	6.456	1	7.256	0	8.056	0	8.856	0	8.856	0	8.856	
CHATEAU PLE	N Lydell Ave	N Anita Ave	5.315	2.750	6.430	228	780	3	4	3	6.315	2	7.115	1	7.915	0	8.515	0	8.515	0	8.515	
CHATEAU PLE	N Lydell Ave	N Anita Ave	5.315	2.750	6.430	194	431	3	4	3	6.315	2	7.115	1	7.915	0	8.515	0	8.515	0	8.515	
BRIARWOOD PLE	N Idlewild Ave	N Marlborough Dr	4.708	6.150	6.424	422	1219	2	5	4	5.708	3	6.508	2	7.308	1	8.108	0	8.108	0	8.108	
CUMBERLAND BLVD N	STH 32	N Vिल्shire Rd (1)	5.600	1.050	6.418	317	1057	3	4	2	6.600	1	7.400	0	8.000	0	8.000	0	8.000	0	8.000	
MARLBOROUGH DR N	E Colfax Pl	E Lancaster Ave	5.757	0.000	6.334	317	1409	3	2	2	6.757	1	7.557	0	8.157	0	8.157	0	8.157	0	8.157	
MARLBOROUGH DR N	E Meadow Pl	E Henry Clay St	5.757	0.000	6.334	317	1409	2	3	2	6.757	1	7.557	0	8.157	0	8.157	0	8.157	0	8.157	
MARLBOROUGH DR N	E Lancaster Ave	E Meadow Pl	5.757	0.000	6.334	370	1644	2	3	2	6.757	1	7.557	0	8.157	0	8.157	0	8.157	0	8.157	
SANTA MONICA BLVD N	E Fairmount Ave	E Lancaster Ave	4.690	5.950	6.379	634	3522	3	5	4	5.690	3	6.490	2	7.290	1	8.090	0	8.090	0	8.090	
BAY RIDGE AVE N	E Lancaster Ave	E Henry Clay St	4.275	8.250	6.371	634	2113	2	4	3	5.275	3	6.075	2	6.875	1	7.675	0	7.675	0	7.675	
GLENDALE AVE E	N Oakland Ave	N Cramer St	5.455	1.250	6.324	317	845	3	2	2	6.455	1	7.255	0	7.855	0	7.855	0	7.855	0	7.855	
CUMBERLAND BLVD N	E Chateau Pl	E Fairmount Ave	4.008	3.000	6.266	634	2113	3	5	4	5.008	3	5.808	2	6.608	1	7.408	0	7.408	0	7.408	
CUMBERLAND BLVD N	E Hampton Rd	E Chateau Pl	4.008	3.000	6.266	686	2287	3	5	4	5.008	3	5.808	2	6.608	1	7.408	0	7.408	0	7.408	
SANTA MONICA BLVD N	E Lancaster Ave	E Henry Clay St	4.630	5.950	6.243	634	3522	2	5	4	5.630	3	6.430	2	7.130	1	7.930	0	7.930	0	7.930	
ANITA AVE N	E Hampton Rd	N Shoreland Ave	5.240	1.250	6.227	634	890	3	4	3	6.240	2	7.140	1	7.940	0	8.540	0	8.540	0	8.540	
CHATEAU PLE	N Anita Ave	N Shoreland Ave	5.315	1.250	6.205	528	1760	3	3	2	6.315	2	7.115	1	7.915	0	8.515	0	8.515	0	8.515	
HOLLYWOOD AVE N	E Chateau Pl	E Fairmount Ave	3.938	3.000	6.187	686	2363	3	6	5	4.938	4	5.738	3	6.538	2	7.338	1	8.138	0	8.138	
CHATEAU PLE	N Shoreland Ave	N Santa Monica Blvd	5.315	1.050	6.175	370	1233	3	4	3	6.315	2	7.115	1	7.915	0	8.515	0	8.515	0	8.515	
SILVER SPRING DR E	N Lydell Ave	N Bay Ridge Ave	5.470	0.150	6.172	317	1691	1	4	3	6.470	2	7.270	1	8.070	0	8.670	0	8.670	0	8.670	
SILVER SPRING DR E	N Bay Ridge Ave	N Kent Ave	5.470	0.150	6.172	317	1691	1	4	3	6.470	2	7.270	1	8.070	0	8.670	0	8.670	0	8.670	
SILVER SPRING DR E	N Kent Ave	N Shoreland Ave	5.470	0.150	6.172	320	1707	1	4	3	6.470	2	7.270	1	8.070	0	8.670	0	8.670	0	8.670	
SILVER SPRING DR E	N Kent Ave	N Shoreland Ave	5.470	0.150	6.172	50	189	1	4	3	6.470	2	7.270	1	8.070	0	8.670	0	8.670	0	8.670	
MONTCLAIRE AVE E	N Santa Monica Blk	N Berkeley Blvd	4.735	4.300	6.170	264	880	1	4	3	5.735	2	6.535	1	7.335	0	7.935	0	7.935	0	7.935	
SHORELAND AVE N	N Anita Ave	E Chateau Pl	5.388	1.050	6.163	686	2287	3	4	3	6.388	2	7.188	1	7.988	0	8.588	0	8.588	0	8.588	
SHORELAND AVE N	E Day Ave	E Belle Ave	3.900	3.000	6.165	581	1937	1	5	4	4.900	3	5.700	2	6.500	1	7.300	0	7.300	0	7.300	
SHORELAND AVE N	E Belle Ave	E Montclair Ave	3.900	3.000	6.165	634	2113	1	5	4	4.900	3	5.700	2	6.500	1	7.300	0	7.300	0	7.300	
WOODBURN ST N	E Glendale Ave	E Courtland Pl	3.998	3.250	6.135	686	527	3	5	4	4.998	3	5.798	2	6.598	1	7.398	0	7.398	0	7.398	
BARTLETT AVE N	E Glendale Ave	N Cumberland Blvd	3.988	3.250	6.135	423	1410	3	5	4	4.988	3	5.788	2	6.588	1	7.388	0	7.388	0	7.388	
HOLLYWOOD AVE N	E Hampton Rd	E Chateau Pl	3.938	3.000	6.084	686	2363	3	6	5	4.938	4	5.738	3	6.538	2	7.338	1	8.138	0	8.138	
BAY RIDGE AVE N	E Silver Spring Dr	E Lakeview Ave	4.290	6.150	6.063	792	2640	1	5	4	5.290	3	6.090	2	6.890	1	7.690	0	7.690	0	7.690	
SHORELAND AVE N	E Lakeview Ave	E Day Ave	3.900	8.250	6.053	634	2113	1	5	4	4.900	3	5.700	2	6.500	1	7.300	0	7.300	0	7.300	
LYDELL AVE N	E Montclair Ave	E Monrovia Ave	3.934	8.050	6.052	686	2287	1	5	4	4.934	3	5.734	2	6.534	1	7.334	0	7.334	0	7.334	
LANCASTER AVE E	N Marlborough Dr	N Kimbark Pl	4.955	1.250	5.839	106	306	2	4	3	5.955	2	6.755	1	7.555	0	8.155	0	8.155	0	8.155	
CONSUL PL N	E Beaumont Ave	E Lakeview Ave	4.145	5.500	5.853	422	1506	1	5	4	5.145	2	5.945	1	6.745	0	7.545	0	7.545	0	7.545	
MORRIS BLVD N	E Glendale Ave	E Courtland Pl	4.117	5.950	5.832	686	2287	3	5	4	5.117	2	5.917	1	6.717	0	7.517	0	7.517	0	7.517	
SANTA MONICA BLVD N	E Chateau Pl	E Fairmount Ave	4.690	2.450	5.854	622	2344	3	5	4	5.690	3	6.490	2	7.290	1	8.090	0	8.090	0	8.090	
SANTA MONICA BLVD N	E Hampton Rd	E Chateau Pl	4.635	3.200	5.835	686	3811	3	5	4	5.635	3	6.435	2	7.235	1	8.035	0	8.035	0	8.035	



Proposed Locations for Water Main Replacements, Water Service Line Replacements, and Street Resurfacing in 2027

- Water main replacement, water service line replacements, and street resurfacing, shown as blue on map
 - N Hollywood Ave, from E Henry Clay St to E Hampton Rd
 - N Shoreland Ave, from 6135 N Shoreland Ave to E Lakeview Ave
- Private street resurfacing and private water service line replacements only, shown as purple on map
 - N Shoreland Ave, from E Devon St to 6135 N Shoreland Ave
- Private water service line replacements only, shown as red on map
 - N Hollywood Ave, from E Hampton Rd to E Courtland Pl

Anticipated Project Schedule

Engineering contract award	Monday, February 2 nd , 2026
Completion of plan documents	Friday, October 30 th , 2026
Public bidding	Monday, December 14 th , 2026
Construction contract award	Monday, January 18 th , 2027
Construction	Spring, 2027



Project Planning

- On October 29th, 2025 the Village applied to the Safe Drinking Water Loan Program (SDWLP) through the Department of Natural Resources
- Public Works staff will inspect the storm and sanitary utilities throughout project location prior to construction start
- Engineering consultants will inspect catch basins within the project location prior to construction start

Old Cast Iron
Water Main



HDPE Water Main

Whitefish Bay Water Main



High Density
Polyethylene
(HDPE) Water Line

Whitefish Bay HDPE Private Water Service Line

COMMUNITY OUTREACH PROJECT OVERVIEW

- Reduce barriers for residents through education & case management
- Prioritize high-risk households
- Outreach, coordination, and resident support





WHAT HAS BEEN DONE

(MONTH 1-3 KEY ACTIVITIES & DELIVERABLES)

ENVIRONMENTAL HEALTH SPECIALIST TRAINING

Hired and onboarded.

CERTIFICATION AND TRAINING

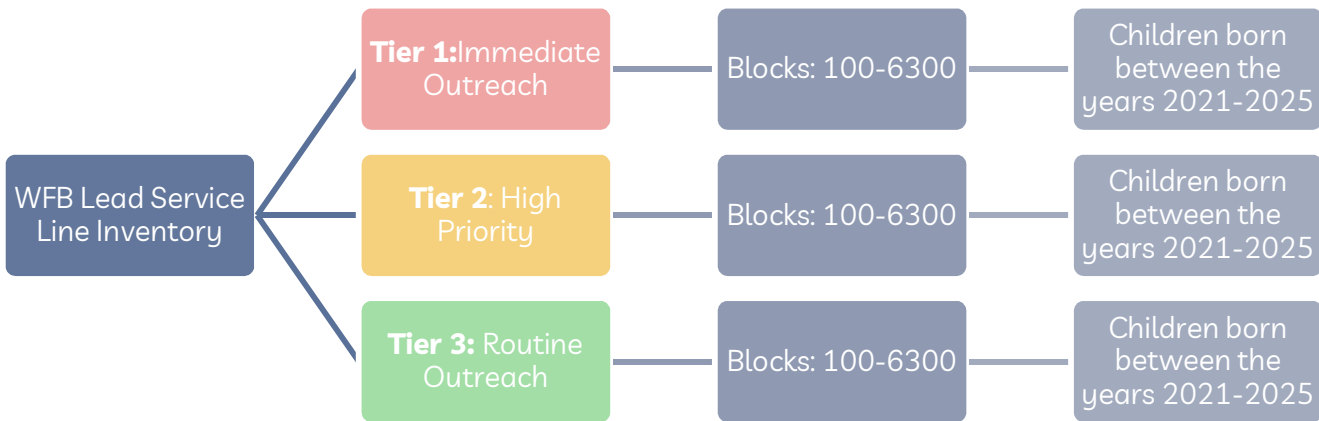
Lead Risk Assessor training is scheduled for January 9-16, 2026.

OUTREACH MATERIAL DEVELOPMENT

Development of the plain language outreach toolkit is underway.

Proposed Outreach Strategy

Prioritize outreach based on potential risk of lead exposure, consistent with EPA Lead and Copper Rule Revisions (LCRR).



Tier 1: includes all service lines that are defined by EPA as requiring replacement under the Lead and Copper Rule Revisions.
(L, GRR, UKN-LG)

Tier 2: Service lines that are not believed to contain lead based on available records but have not been fully verified through field confirmation or complete documentation. These lines are remain tracked to improve inventory accuracy.
(UKN-NOLG, C, P, DI, CI-L, CI-UL)

Tier 3: Service lines that are not believed to contain lead based on field confirmation or complete documentation.
(C, P, DI, CI-L, CI-UL)

OUTREACH MATERIAL

METHOD	EXAMPLES	MESSAGING
Direct Resident Engagement	<ul style="list-style-type: none"> • Door-to-door outreach • One-on-one resident meetings • Phone call and follow-up check-ins 	<ul style="list-style-type: none"> • Impacts of Lead in Drinking Water • What is the Lead and Copper Rule • Magnitude of the problem in their community • Identifying a Lead Service Line • Expectations during a replacement • Available Financial Assistance • Protecting health after replacement • FAQ
Written and Printed Materials	<ul style="list-style-type: none"> • Targeted Mailers • "One Pagers"/ Fact Sheets • Door Hangers • Utility Bill Insert 	
Digital and Online	<ul style="list-style-type: none"> • Comprehensive Toolkit • Municipal Website • NSHD Social Media 	
Community Level Outreach	<ul style="list-style-type: none"> • Workshops • Small Group Neighborhood Meetings 	
Relationship-Building Tools	<ul style="list-style-type: none"> • Contact Cards • Dedicated email & phone line for LSLR support 	