



2021 Water System Condition Assessments for 39 Neighborhoods

Project Background

The Detroit Water and Sewerage Department (DWSD) has contracted with Wachs Water Services, a Xylem Brand, to perform water main condition assessment services throughout the city of Detroit. This program will consist of field work and data collection that will help improve the reliability of DWSD's water infrastructure as well as help DWSD plan future capital expenditures regarding pipe replacement and system upgrades. DWSD, like many other large water system operators, faces similar challenges of maintaining an aging water distribution system. In June 2019, DWSD launched its \$500 million, five-year Capital Improvement Program to begin to address the city's aging water and sewer systems. Since 2018, DWSD has conducted water and sewer system assessments in nine neighborhoods and has its first two neighborhood-wide construction projects underway using the assessments and other data.

About the Project

The DWSD project will include several maintenance inspections along with a rigorous data collection initiative to help DWSD better understand water system components and assets. Wachs Water Services will perform four different types of inspections as part of the program. The project will begin on April 19, 2021 and take approximately seven months to complete.

- Testing for Pipe Leaks
- Fire Hydrant Flow Testing
- Fire Hydrant C-Factor Testing
- Gate Valve Inspection and Exercising

Project Neighborhoods and Areas

- Barton-McFarland
- Cadillac Community
- Chadsey Condon
- Conant Gardens
- Crary/St. Mary's
- ***Cultural Center**
- Davison
- Denby
- Dexter-Linwood
- East English Village
- Evergreen-Outer Drive
- Fiskhorn
- Gold Coast
- Grandmont #1
- Greenfield
- Greenwich
- Hawthorn
- Herman Kiefer
- Hunt
- Islandview
- Joseph Berry Sub
- Lafayette Park
- LaSalle Gardens
- Mapleridge
- ***Medical Center**
- ***Midtown**
- Moross-Morang

***The condition assessment project will begin in Cultural Center, Medical Center and Midtown before moving into other neighborhoods and project areas. Overall project schedule will be released at a later date.**

What Customers Should Expect

In order to improve the water system, DWSD will be conducting inspections of the pipes, valves and hydrants over the next several months. These inspections should not cause water service interruptions. What you should expect:

- Customers will receive communication prior to work beginning in their community.

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- Crews will **NEVER** ask to access the inside of your home.
- Work is generally performed from 7 a.m. to 7 p.m. (Weekdays).
- To perform work, contractors may need to trim or cut trees and brush to access streets and alleys.
- Please follow the flushing instructions listed below after work on your street.

Flushing Instructions

As a precaution and if you see rust-colored water, DWSD recommends flushing your water taps after water system inspections in your neighborhood. **DO NOT** consume tap water, open hot water faucets, use your icemaker, or filtered water dispenser until the flushing steps listed below are complete.

1. **Remove faucet aerators (screens)** from all water faucets in your home by turning clockwise to loosen (You may have to use a wrench if you have never taken them off).
2. Beginning in the lowest level of your home, **open all the cold water faucets** in your house, including sinks, showers and bathtubs.
3. **Let the water run for 30 minutes** at the last faucet you opened on the top floor.
4. Turn off each faucet starting with the first one opened (bottom floor). Clean the aerators with an old toothbrush, rinse and reinstall by turning counterclockwise.

What You Will See in Your Neighborhood

Wachs Water Services uses specialized vehicles to perform the services for this project. All vehicles will be clearly marked with their name on side doors. Valve and hydrant inspections are performed by a two-man crew team. Leak detection inspections are performed by one or two man teams that will walk a specific route for each test. In some project areas, you may see single lane closures so inspections can be performed. Inspections of valve and hydrants can take up to 30 minutes.

- A leak detection technician (pictured here) will be carrying specialized listening equipment connected to headphones. The leak detection technician will traverse on foot in the designated project area listening at hydrants and valves in the area. If they detect a leak, they will mark the individual location and move on to the next area. They generally travel in a pickup truck or van throughout the project area.
- A hydrant technician (pictured here) will use special equipment that will attach to the nozzle of the fire hydrant. Hydrants will be flushed to achieve the desired results of the test. There may be water flowing down the curb line to the closest drainage basin. Hydrant technicians travel in specialized valve trucks in two-man teams.





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- A valve technician will be seen in the public right-of-way removing water valve covers and using valve keys to operate and record data on each valve tested. In some cases, traffic control will be required to safely access the valves. The valve truck pictured is similar to vehicles that crews will use for valves and hydrants.



Learn About Each Test

- Testing for pipe leaks, Wachs Water Services will utilize specialized sounding and correlating equipment to identify subsurface leaks. A common misconception is that all water leaking from pipes will eventually rise to the surface, however, many leaks find their way into sewers or storm pipes making them impossible to see, and some can be small making it difficult for those leaks to reach the surface. Once a leak is found, DWSD staff will repair the leak.
- Fire hydrant flow testing will require Wachs Water Service to open system hydrants and record various flow measurements to understand the hydrants' capacity to meet industry standards for fire protection as well as document water system pressure within a localized area. This testing will also document general condition of each fire hydrant and identify corrective maintenance repairs.
- Fire hydrant C-Factor testing is a type of test that allows DWSD to understand the pressure differential and water flow inside the pipe over a known distance from point A to point B. From this test, DWSD will be able to determine the interior surface condition of the water main, which will help it plan for pipe replacements.
- Wachs Water Service will also perform gate valve inspections and exercising. This activity requires water valve lids are located and removed, with most in the street or near a sidewalk (city right-of-way/berm), giving access to the valve operator below the surface. The valves will be cycled, or exercised, using special equipment recording turn count and operating torque, as well as other data attributes about the water control valves. Understanding the condition and whereabouts of water gate valves is important in the event a water line needs shut down due to maintenance or in an emergency.

SPECIAL NOTE TO WATER CUSTOMERS

A water system condition assessment on your street does not guarantee a future water main replacement or lining. The assessments, along with other data, is evaluated and it may be determined that the current pipe is sufficient, or that it needs to be replaced or lined.

About Wachs Water Services

Since 2000, Wachs Water Services has been dedicated to helping water system owners optimize control of their aging water distribution infrastructures, which helps them reduce the consequences associated with pipe line failures, improve water quality and ultimately helps them plan for future system upgrades and pipeline replacements. Wachs Water Systems has operated over 1 million valves and hydrants for its water utility clients throughout North America.

Have A Question?

Please call DWSD Customer Care at 313-267-8000 if you have any questions or concerns. If your neighborhood was not listed, stay tuned to DWSD for more information about water system work in your area.