

DWSD Capital Improvement Program Update 2025

RESILIENCE
LEAD
GROWTH



Water & Sewerage
Department



Purpose of the DWSD CIP



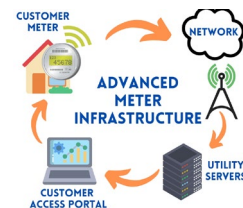
Improve level of service and quality of life by:

- Having an Asset Management Driven CIP Program that is defensible and transparent
- Reducing water main breaks, non-revenue water and sewer sink holes
- Realize a reduction in O&M costs for water and sewer infrastructure
- Coordination with other agencies (DPW, DTE, MDOT) via the Infrastructure Coordination meetings to maximize dollars invested and minimize disruption to neighborhoods from construction activity
- Having strong governance, effective planning, and collaboration between stakeholders for navigating challenges and promoting the sustainability of CIP delivery

Holistic Approach to deliver CIP

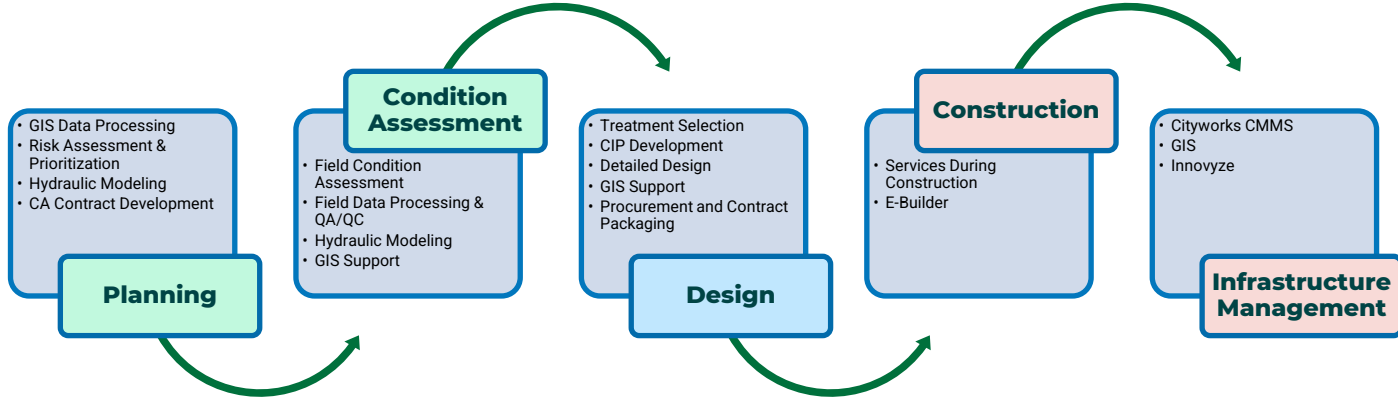
Our programmatic approach demanded timely and reliable data to support better decision-making:

- Includes all major aspects of the organization workflows that affect CIP delivery – Engineering, Maintenance & Repair, Information Technology, Finance
 - Maintains a GIS-centric asset and work maintenance management system
 - Maintain a Risk and Criticality Profile of all assets that are updated annually
 - Centralized location for Reporting
 - Gathering Near Real-time Asset Data and Analyzing
 - Cost effective methods to meet the replacement goal of 0.75% of assets and provide in-depth analysis
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- A holistic approach to delivering CIP (Continuous Improvement Process) involves integrating various aspects of an organization, including its people, processes, and technology, to achieve sustainable and impactful improvements. This approach emphasizes the interconnectedness of these elements and focuses on fostering a culture of continuous learning and improvement across the entire organization



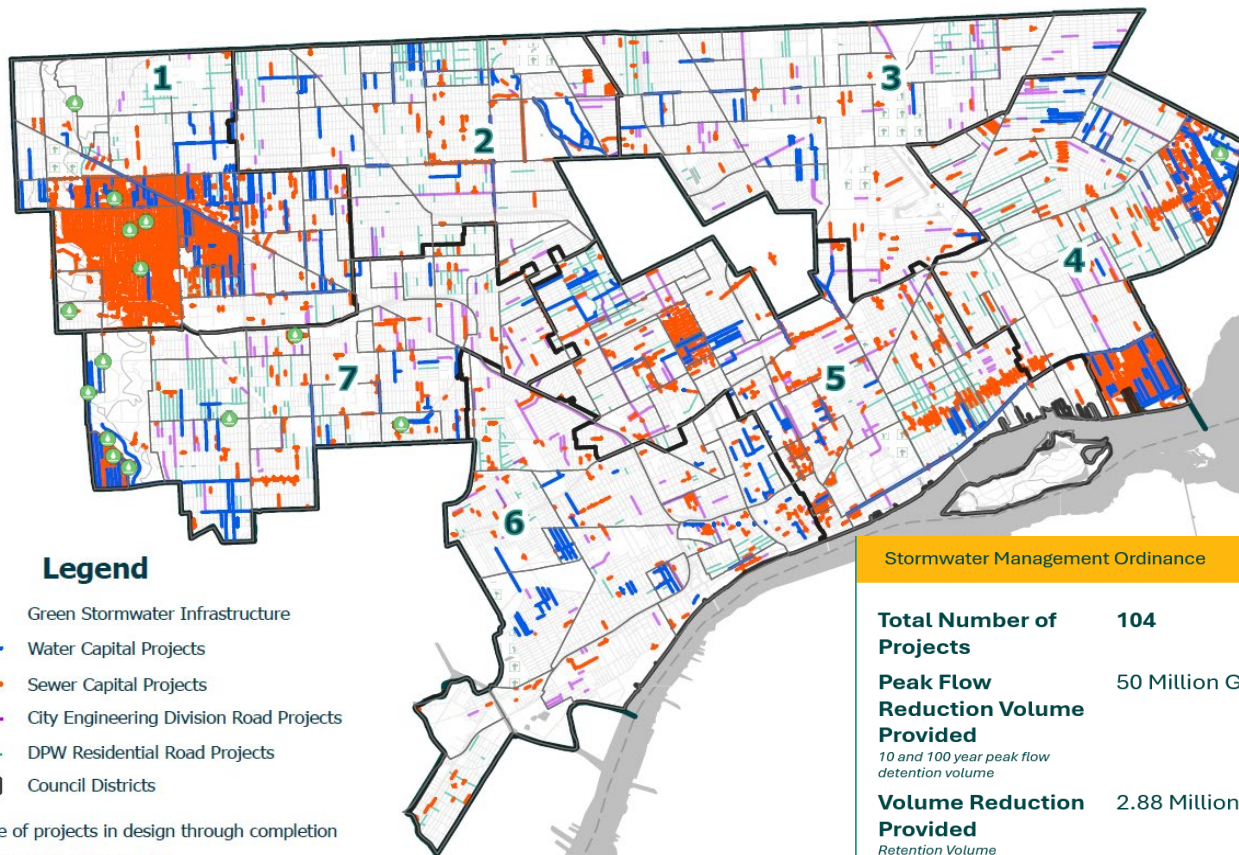
CIP Delivery Process

A CIP delivery process that provides predictable quality outcomes, which reduces the risk of interrupted CIP delivery outcomes and allows DWSD to better plan for an annual CIP that matches available funding each fiscal year.



Resilience Lead Growth

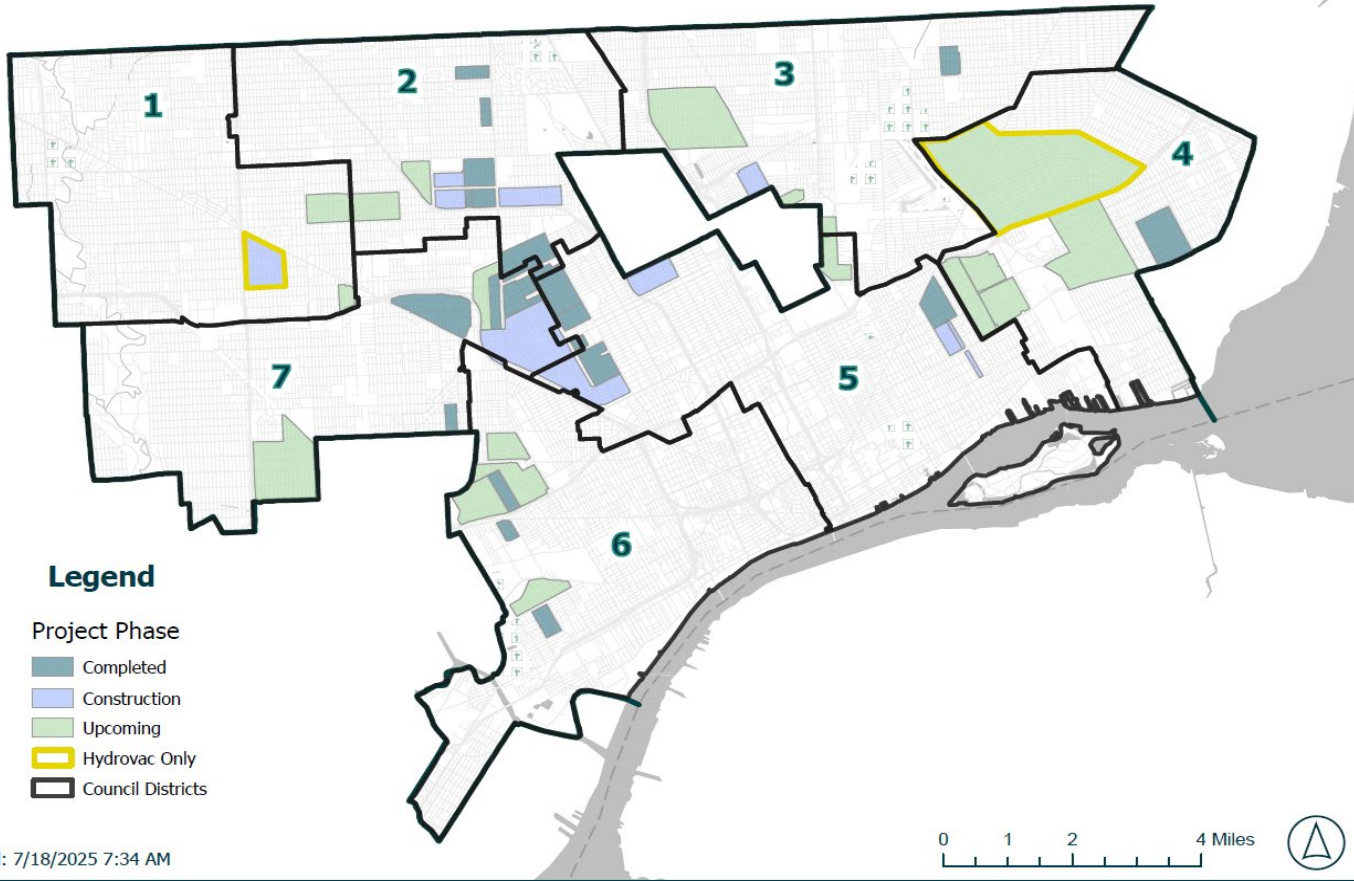
Water, Sewer and Stormwater Projects



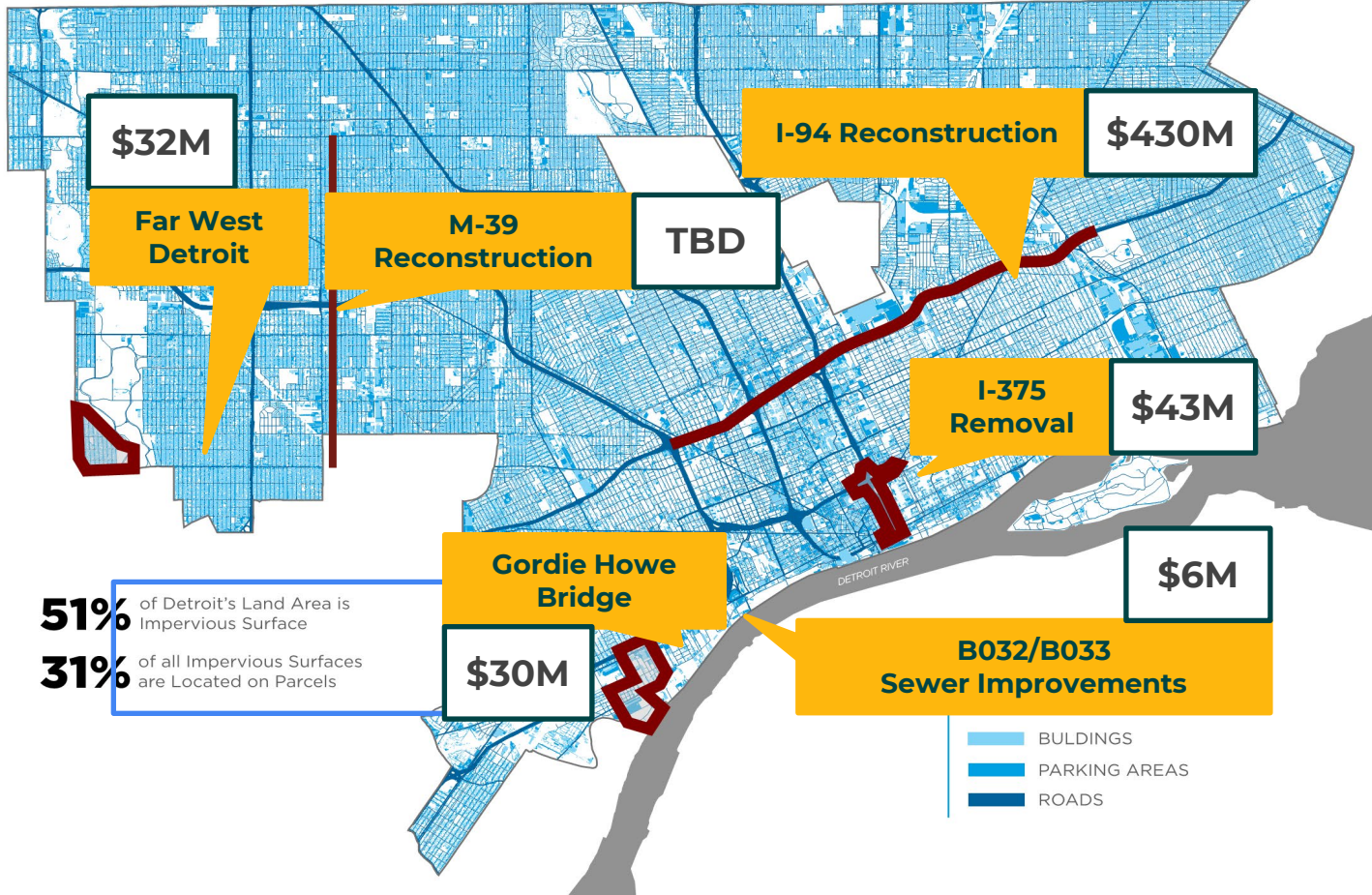
* Inclusive of projects in design through completion

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Lead Service Line Replacement

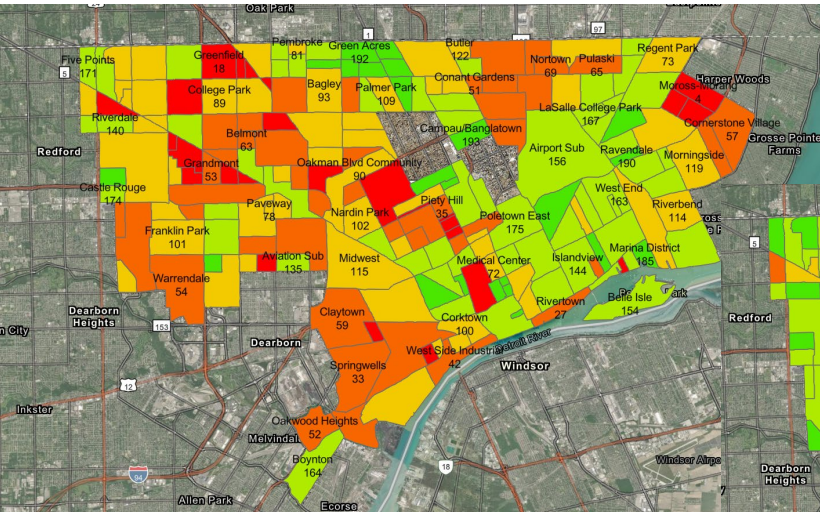


Collaboration Projects that reduces Detroit's Wet Weather Peak Flows

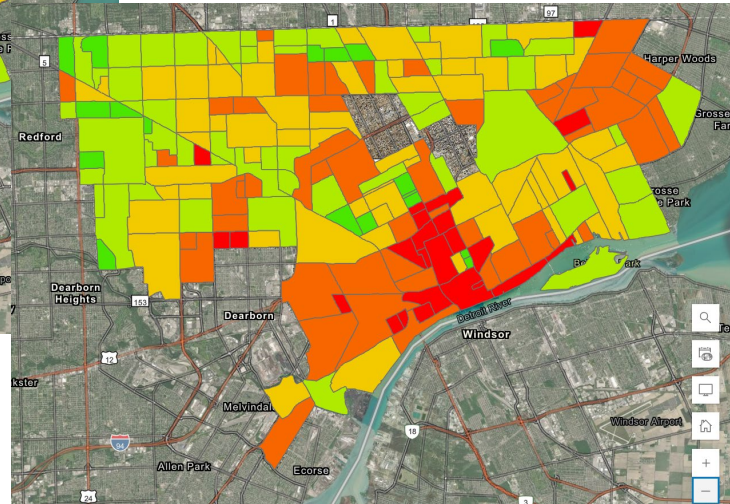


Asset Management Program

Water Risk Assessment



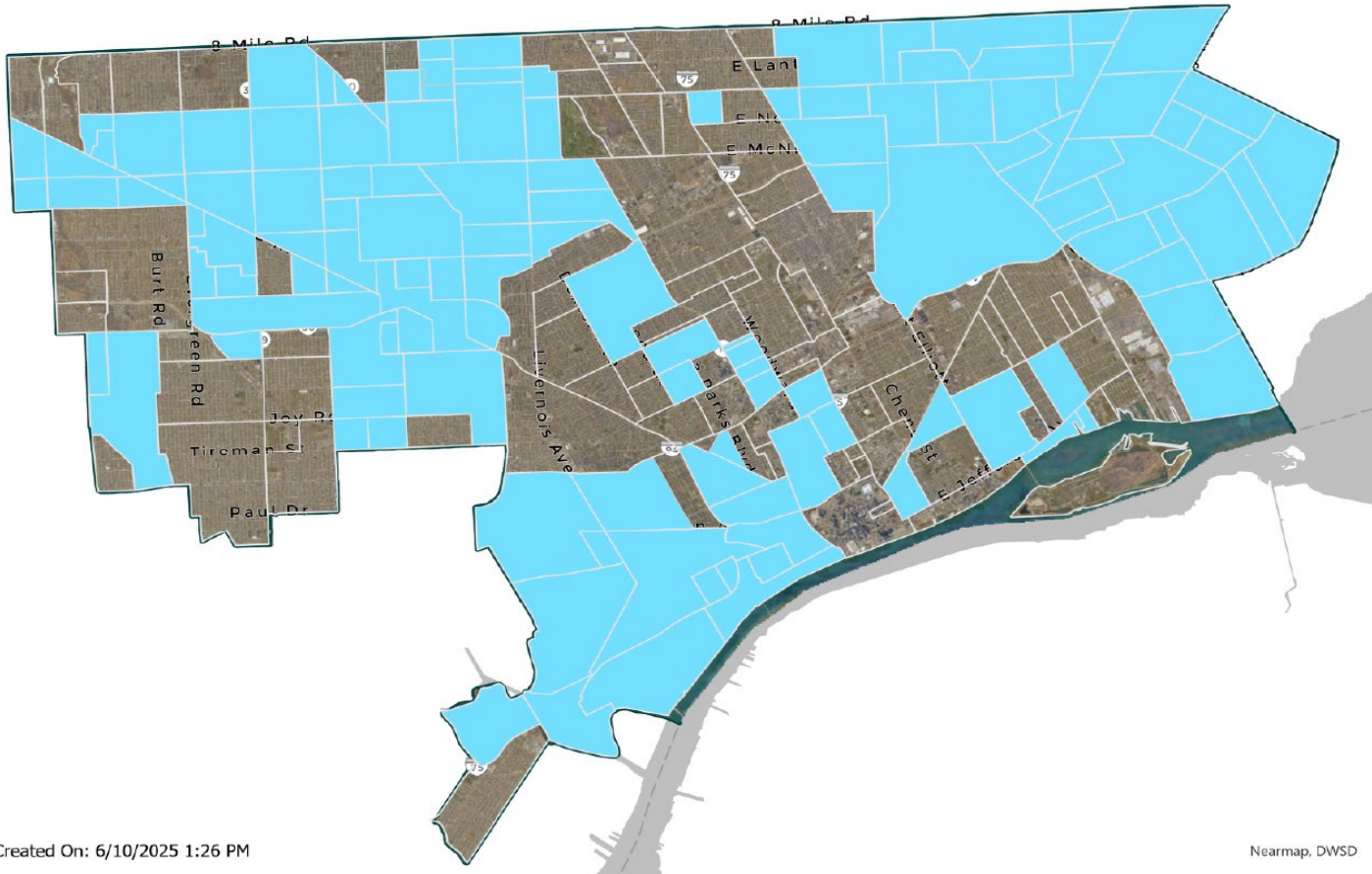
Sewer Risk Assessment



The DWSD Capital Improvement Program utilizes a comprehensive risk model to prioritize neighborhood condition assessment, inspection, and interventions.

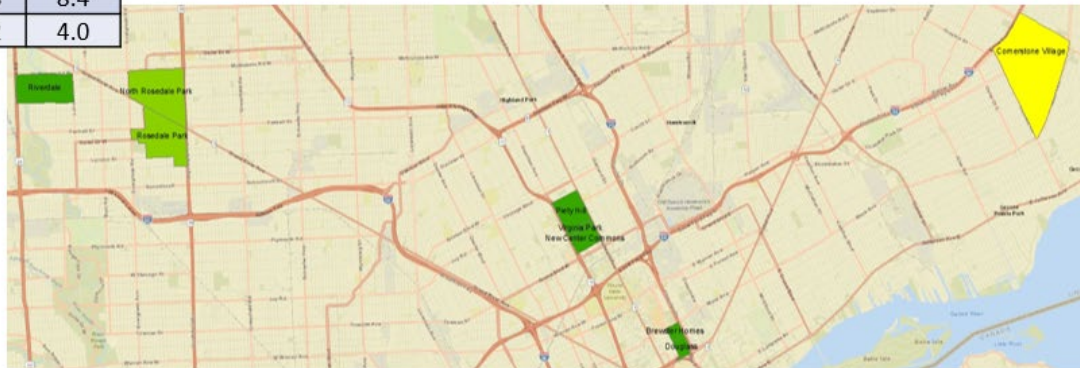
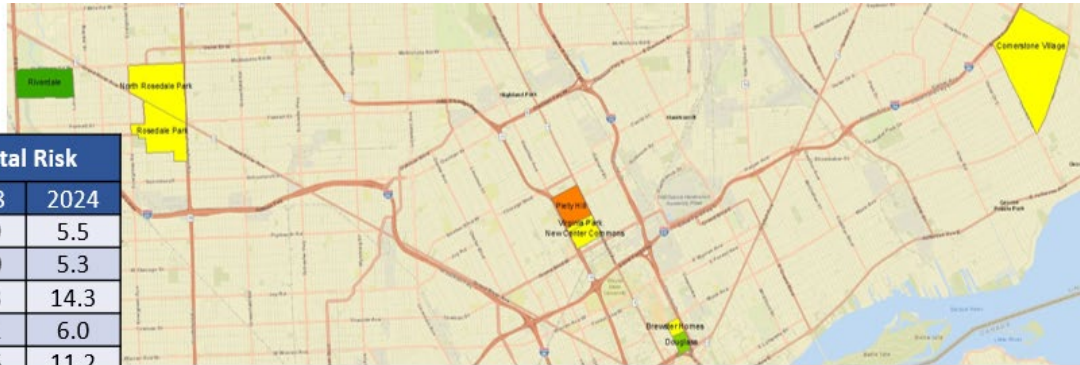
3 miles of condition assessment typically identify 1 mile of needed rehabilitation

Neighborhoods with Completed Leak Detection – water loss detection/repair

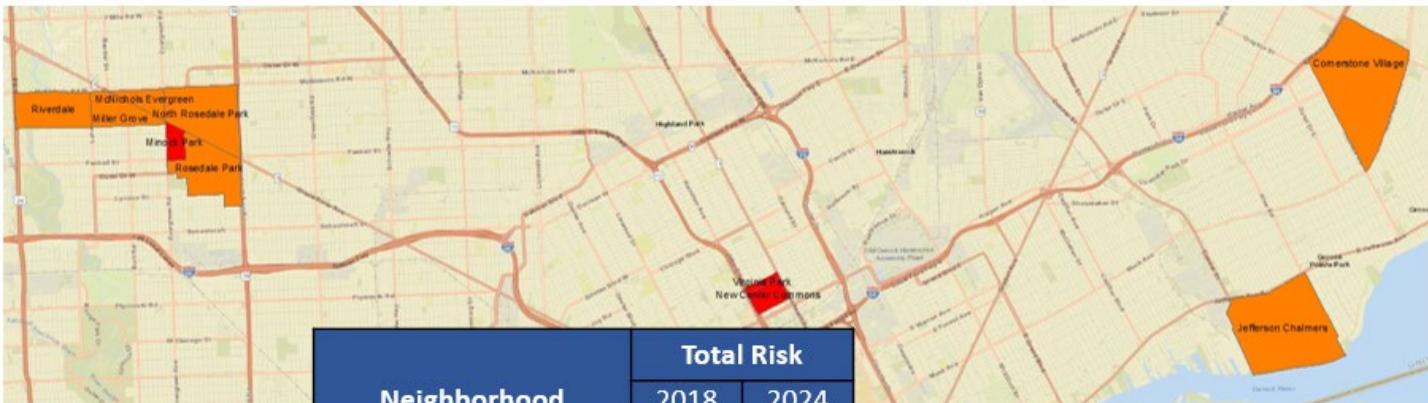


Asset Risk Improvement

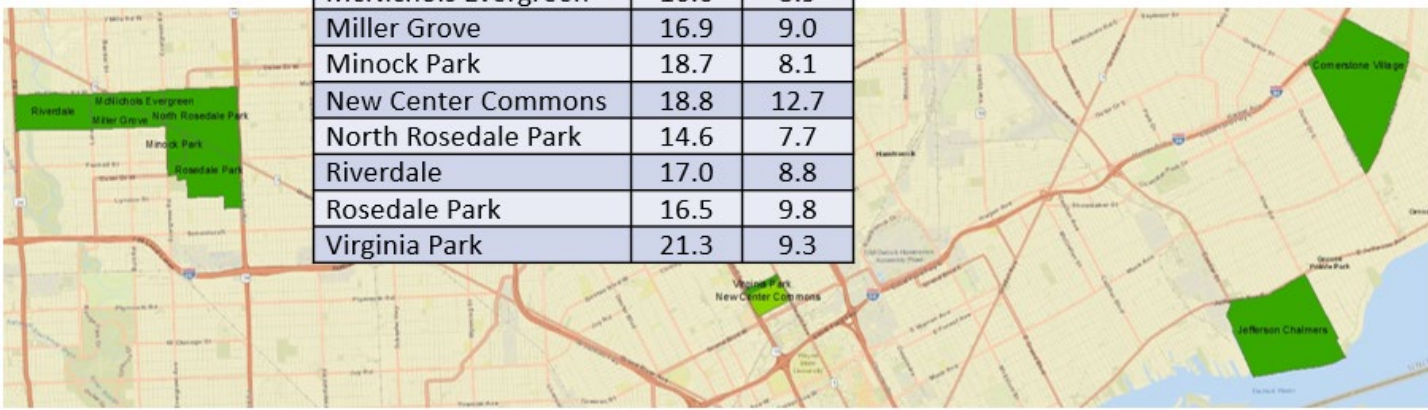
Neighborhood	Total Risk	
	2018	2024
Brewster Homes	13.9	5.5
Brewster-Douglass	10.0	5.3
Cornerstone Village	12.3	14.3
New Center Commons	13.1	6.0
North Rosedale Park	12.6	11.2
Piety Hill	15.3	4.9
Riverdale	5.8	3.5
Rosedale Park	12.8	8.4
Virginia Park	13.2	4.0



Asset Risk Improvement



Neighborhood	Total Risk	
	2018	2024
Cornerstone Village	14.7	9.3
Jefferson Chalmers	15.3	8.8
McNichols Evergreen	16.6	8.9
Miller Grove	16.9	9.0
Minock Park	18.7	8.1
New Center Commons	18.8	12.7
North Rosedale Park	14.6	7.7
Riverdale	17.0	8.8
Rosedale Park	16.5	9.8
Virginia Park	21.3	9.3



Continuous Improvement

- Regular review and lessons learned workshops based on ongoing projects and evolving best practices.
 - Established mechanisms for feedback and continuous improvement with Inspectors, Engineers, Finance and Legal teams.
 - Develop standardized tools and templates based on best industry practices.
 - Implementing ongoing training for staff at all levels to support workforce adoption of technology and processes that have been developed
 - QA/QC reports to ensure consistent utilization of Standard Operating Procedures
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- To close the funding gap to meet the goal of 0.75% renewal rate since 2018
 - Improving contract management performance and policy compliance

By adopting this holistic approach, DWSD will ensure that lessons learned from past projects are not lost but rather serve as valuable assets for future capital improvement initiatives, leading to more successful and sustainable projects.

Questions

- Reducing the impact of Likelihood of Failure
- Mitigating against Consequence of Failure

**Delivering Visible Return on Investment for Resilience
and Growth for City of Detroit**