

September 13, 2024

VIA ELECTRONIC FILING

Brinda Westbrook-Sedgwick
Commission Secretary
Public Service Commission
of the District of Columbia
1325 "G" Street, NW, 8th Floor
Washington, D.C. 20005

**Re: Formal Case No. 1178
[Washington Gas's Supplemental Information for Technical
Conference - PUBLIC]**

Dear Ms. Westbrook-Sedgwick:

Washington Gas Light Company hereby submits supplemental information for the September 20, 2024 Technical Conference scheduled in the above-referenced proceeding (public version). A confidential version is being filed under separate cover.

Sincerely,



Cathy Thurston-Seignious
Supervisor, Administrative and
Associate General Counsel

cc: Per Certificate of Service



AGING FACILITIES AND LEAKS

Meeting Date: September 20, 2024

Supplemental Materials Submitted: September 13, 2024



PHMSA CALL TO ACTION

CYNTHIA QUARTERMAN

- Former Administrator at the US Department of Transportation's Pipeline and Hazardous Materials Safety Administration
- Distinguished Senior Fellow at the Atlantic Council's Global Energy Center
- Chaired the Independent Quality Review Board for NiSource Inc.
- District Resident



PHMSA CALL TO ACTION

EVENTS DRIVING CALL TO ACTION

- San Bruno, California – September 2010
- Philadelphia, Pennsylvania – January 2011
- Allentown, Pennsylvania – February 2011

➤ **LOW PROBABILITY, HIGH CONSEQUENCE EVENTS**

INDUSTRY BACKGROUND

- In 2011, more than 50% of the nation's pipelines were constructed pre-1950s.
- First pipeline safety regulations were not adopted until 1968.
- Early adopters (e.g., Baltimore, DC, New York, Philadelphia) had disproportionately high amounts of vintage materials.
- Pervasive belief across industry that many pipeline materials, if well maintained and properly operated, could have an exceedingly long life.

CALL TO ACTION URGES DEPARTURE FROM THE STATUS QUO

TARGETED HIGH-RISK MATERIALS

- Cast iron, wrought iron, bare steel, copper and certain kinds of welded pipe and vintage plastic
- Focused on materials that are disproportionately likely to develop age/condition related weakness that may lead to excessive leak behavior or dramatic failure.
- Certain materials are more prone to rapid crack propagation and circumferential breaks.
 - These would lead to a low probability, high consequence event.
 - Cast iron; Adyl-A plastic

IMPROVED INADEQUATE STATE PROGRAMS

Examples:

- Pennsylvania: 100 years for replacement
- New York: 79 years for replacement
- Connecticut: 69 years for replacement

PROMOTED ACCELERATED COST RECOVERY

- Time delay caused by traditional ratemaking would hamper the ability to prioritize high-risk pipelines and deploy labor and capital consistently over many years to make needed progress.
- Extensive outreach by PHMSA focused on the need to eliminate or reduce barriers to funding, including to:
 - NARUC
 - FERC
 - State Commissions, including the District

PHMSA CALL TO ACTION

CONTINUES TO BE A CRITICAL FEDERAL DIRECTIVE

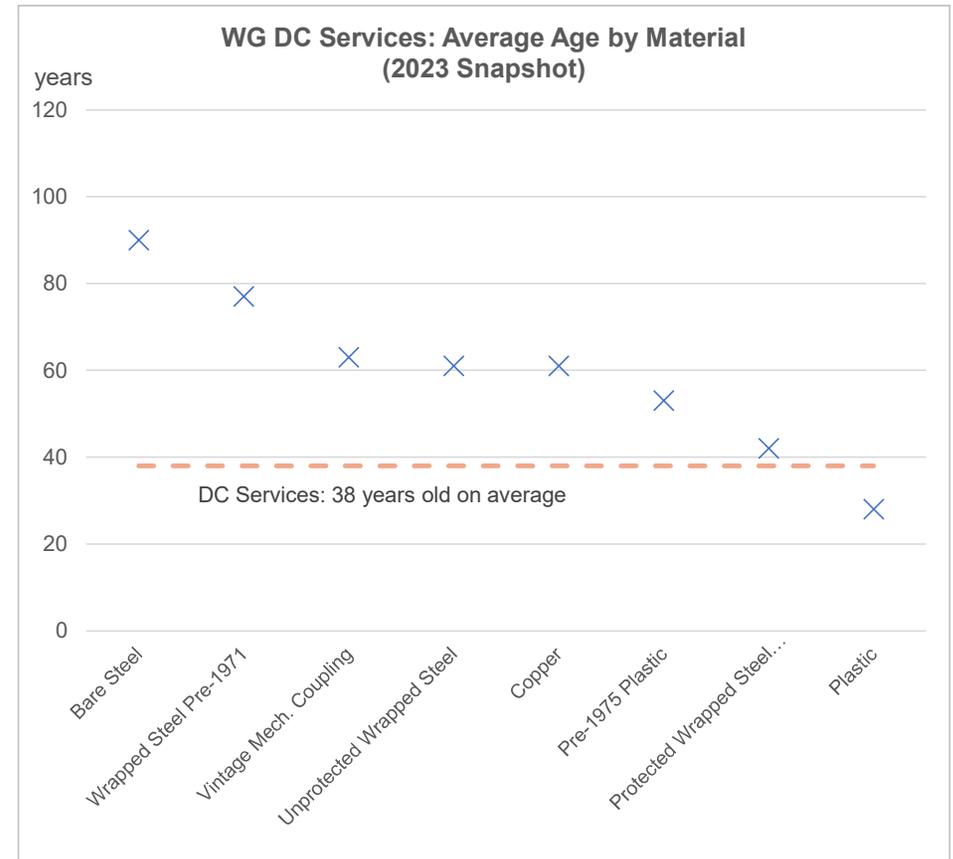
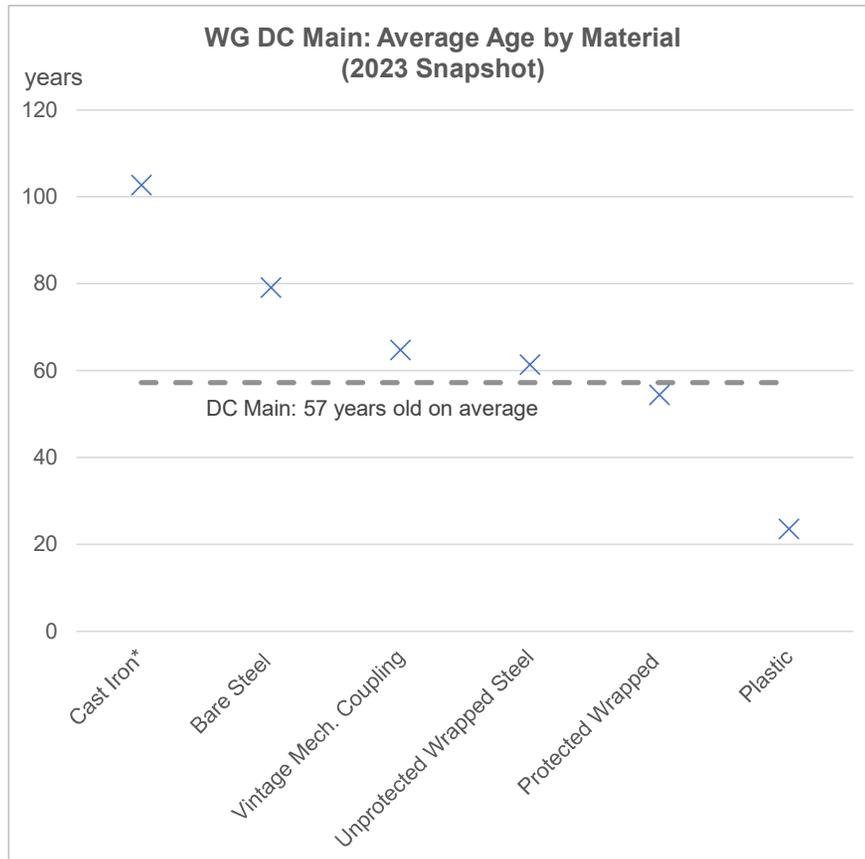
- **Federal Government continues to provide strong support for elimination of high-risk materials.**
 - *Example:* Bipartisan Infrastructure Law included Natural Gas Distribution Infrastructure Safety and Modernization Program. **\$1 billion in total investment by Federal Government.**
 - Provided PHMSA with up to \$200 million per year to support cast iron elimination on municipal systems.
 - Recipients have included:
 - **Richmond Gas Works (Richmond, VA):** \$49 million to replace cast-iron, ductile iron, and steel natural gas mains on a system where some parts are over 170 years old.
 - **Philadelphia Gas Works (Philadelphia, PA):** \$85 million to replace “at-risk” cast iron pipes in historically disadvantaged areas throughout the city to modernize its natural gas infrastructure, minimize service disruptions, and support economic development.
- **Repair of vintage facilities is not adequate.**
 - Vintage materials have corrosion, degradation, and manufacturing flaws (due to lack of consistent regulatory landscape) that have weakened them and increased vulnerability to future leaks and failure. Repair cannot address these issues.
 - Many vintage facilities have already experienced prior repair activities.
- **Continued sense of urgency is needed.**
 - Nationally major progress has been made, but as of December 2023, there are still 15,872 miles of cast iron main, 35,126 miles of bare steel, and millions of services that must be replaced on an expedited basis.



DC STATE OF THE SYSTEM

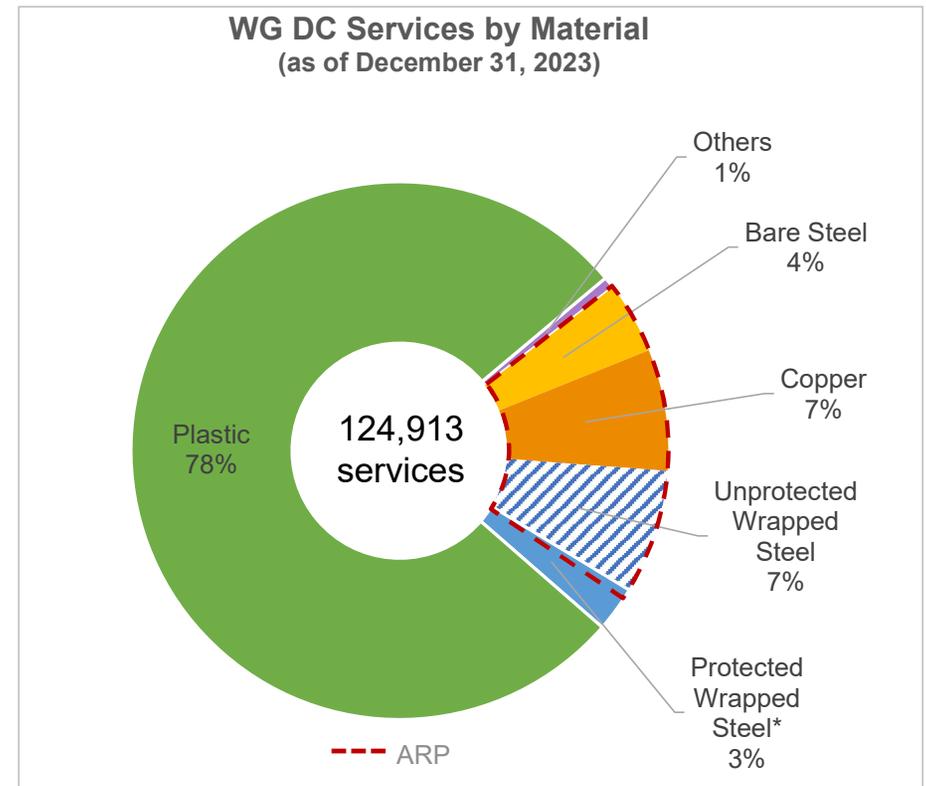
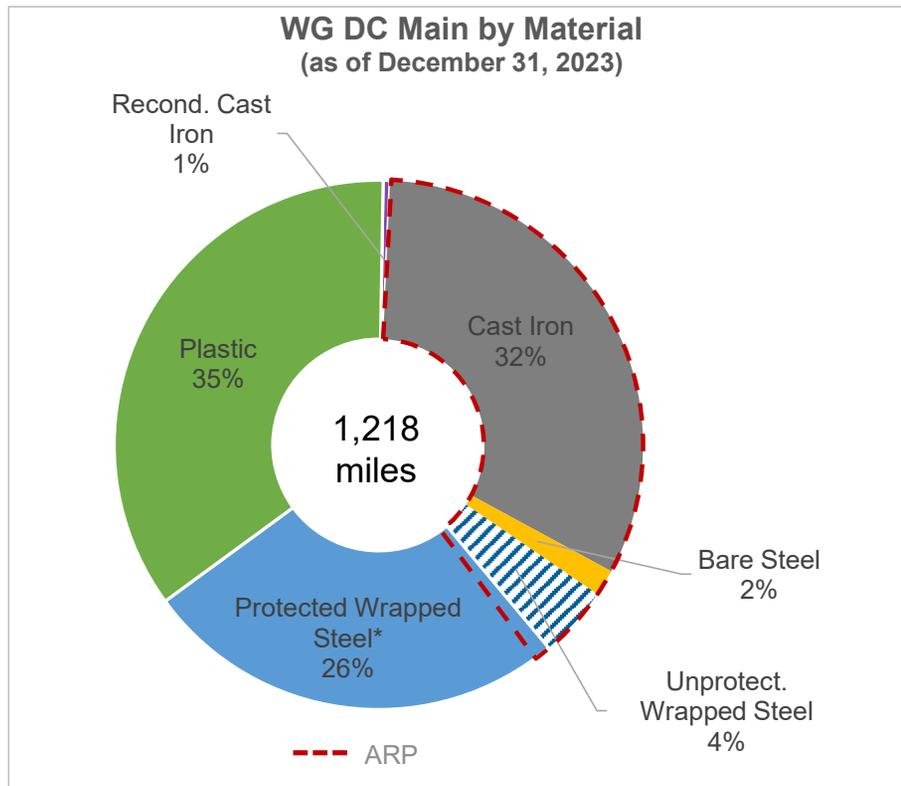
ASSET AND LEAK INFORMATION

DC MAIN AND SERVICES INVENTORY: MATERIALS AND AVERAGE AGE



* includes reconditioned cast iron

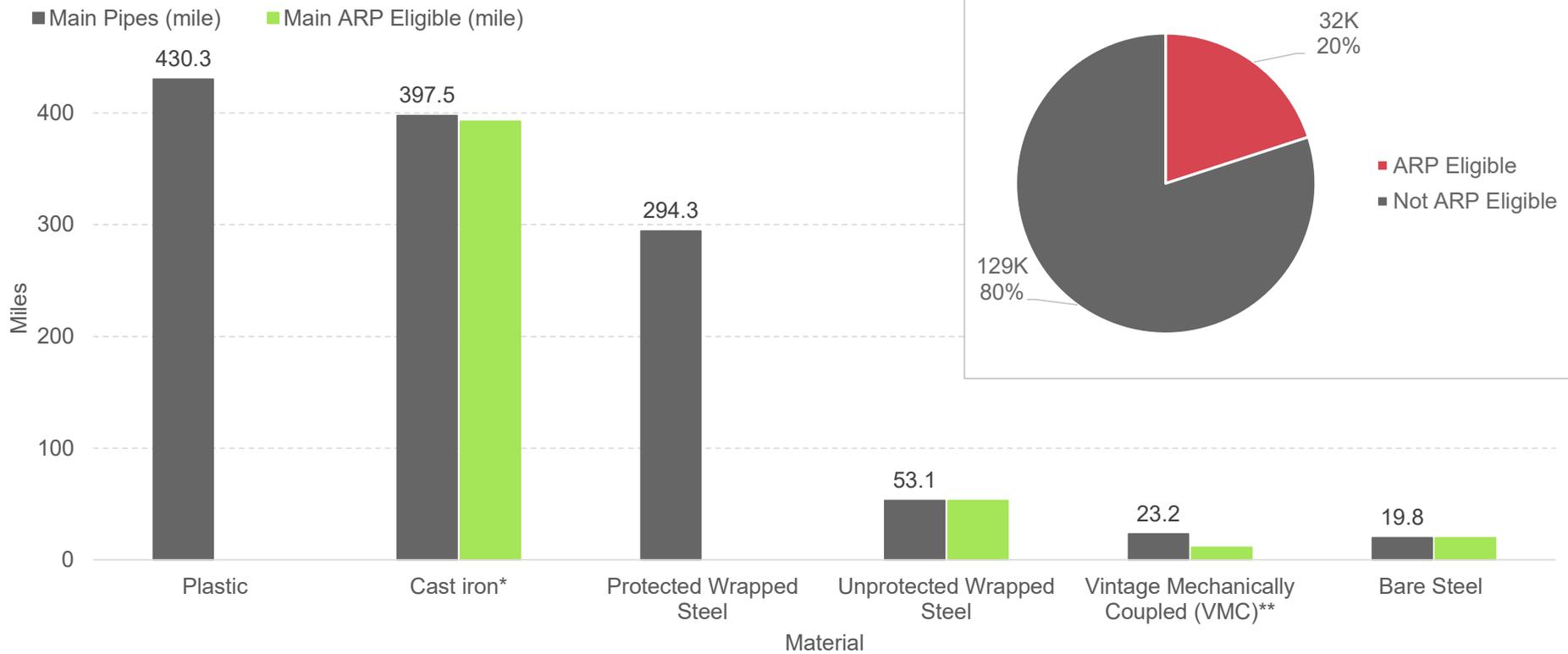
DC STATS – ASSETS AND ARP ELIGIBILITY



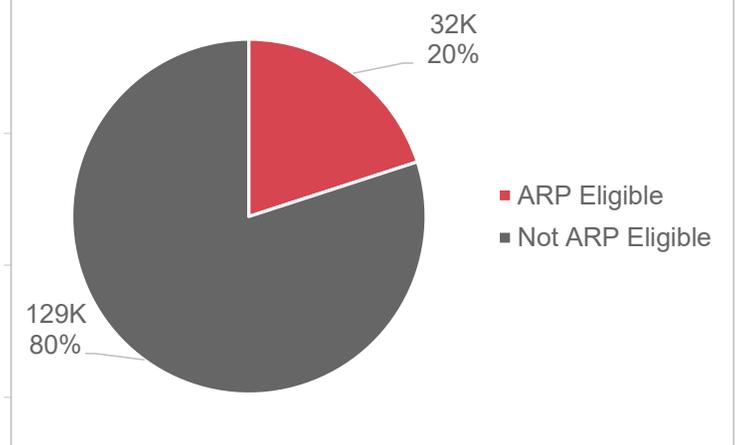
* Protected Wrapped Steel Includes Vintage Mech. Coupling and Wrapped Encapsulated Steel.
Source Data: PHMSA 7.100 Report

DC STATS – ASSETS AND ARP ELIGIBILITY

DC Main Pipes Population (2023)



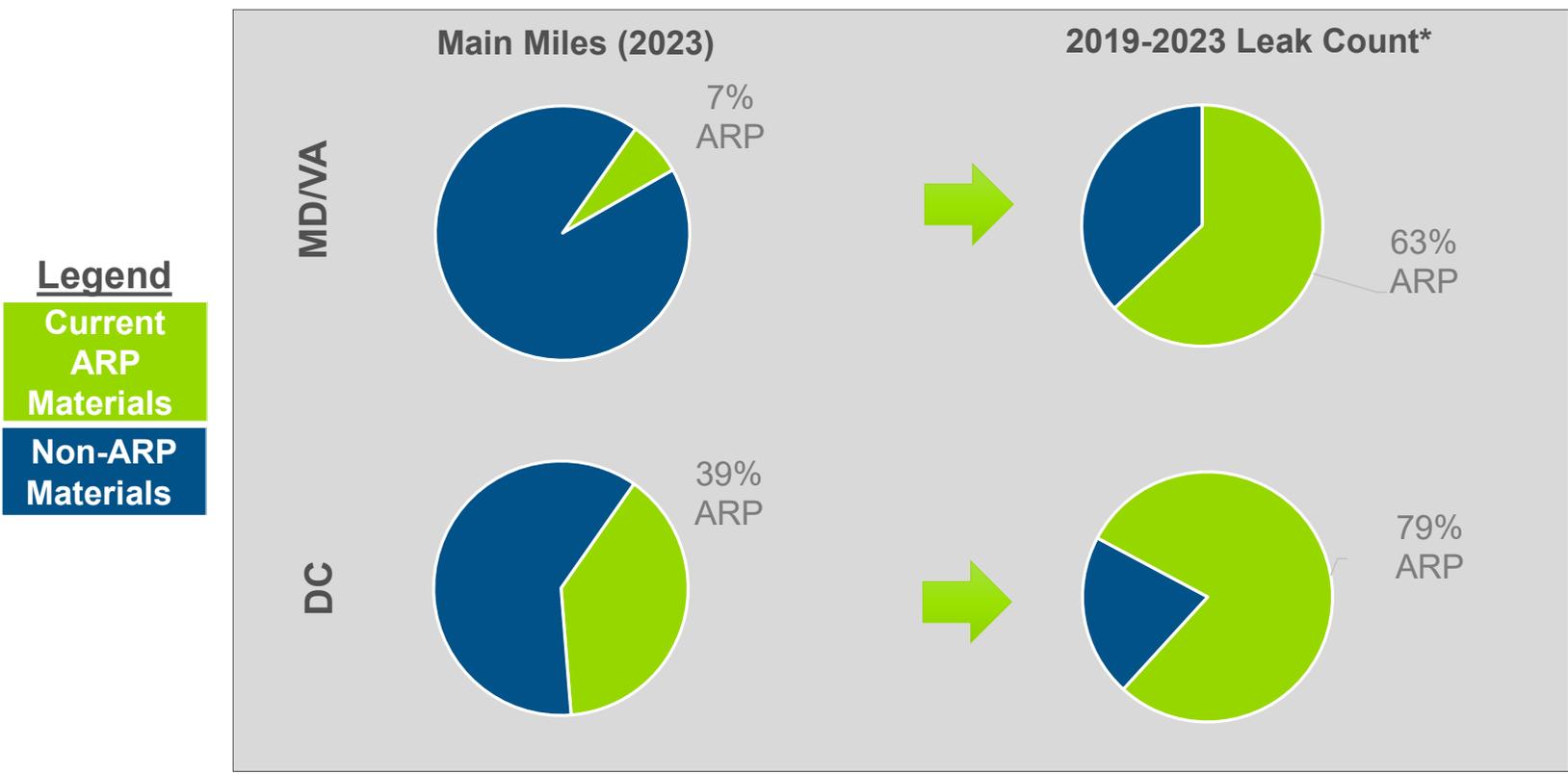
DC Service Segments (2023)



* reconditioned cast iron not included in ARP eligible main
 ** 12 miles of encapsulated VMC not included in ARP eligible main

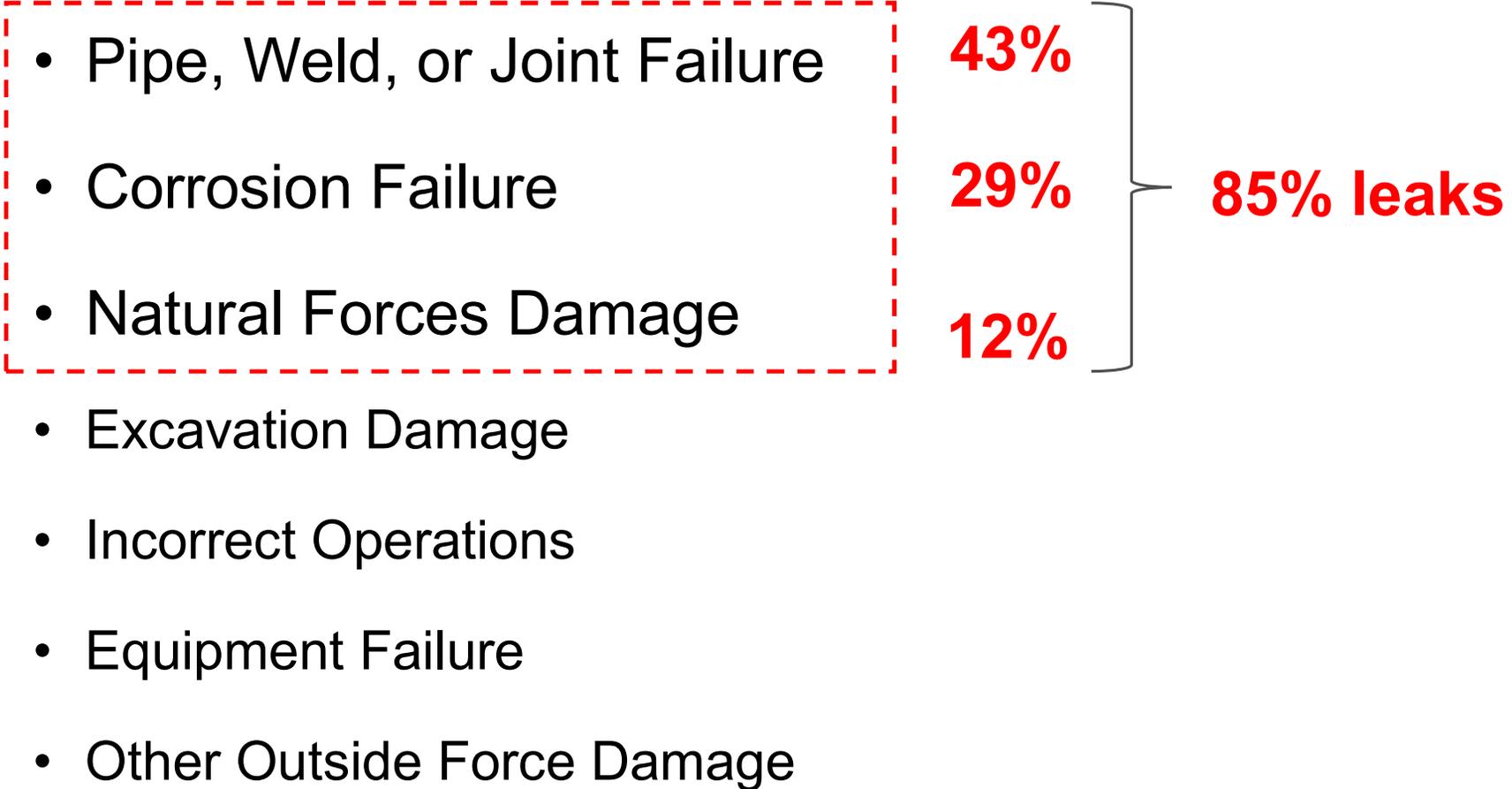
TARGETING PIPE REPLACEMENT ON RIGHT POPULATIONS

LEAKS ARE CONCENTRATED – BUT IT’S A LARGE, AGING SYSTEM

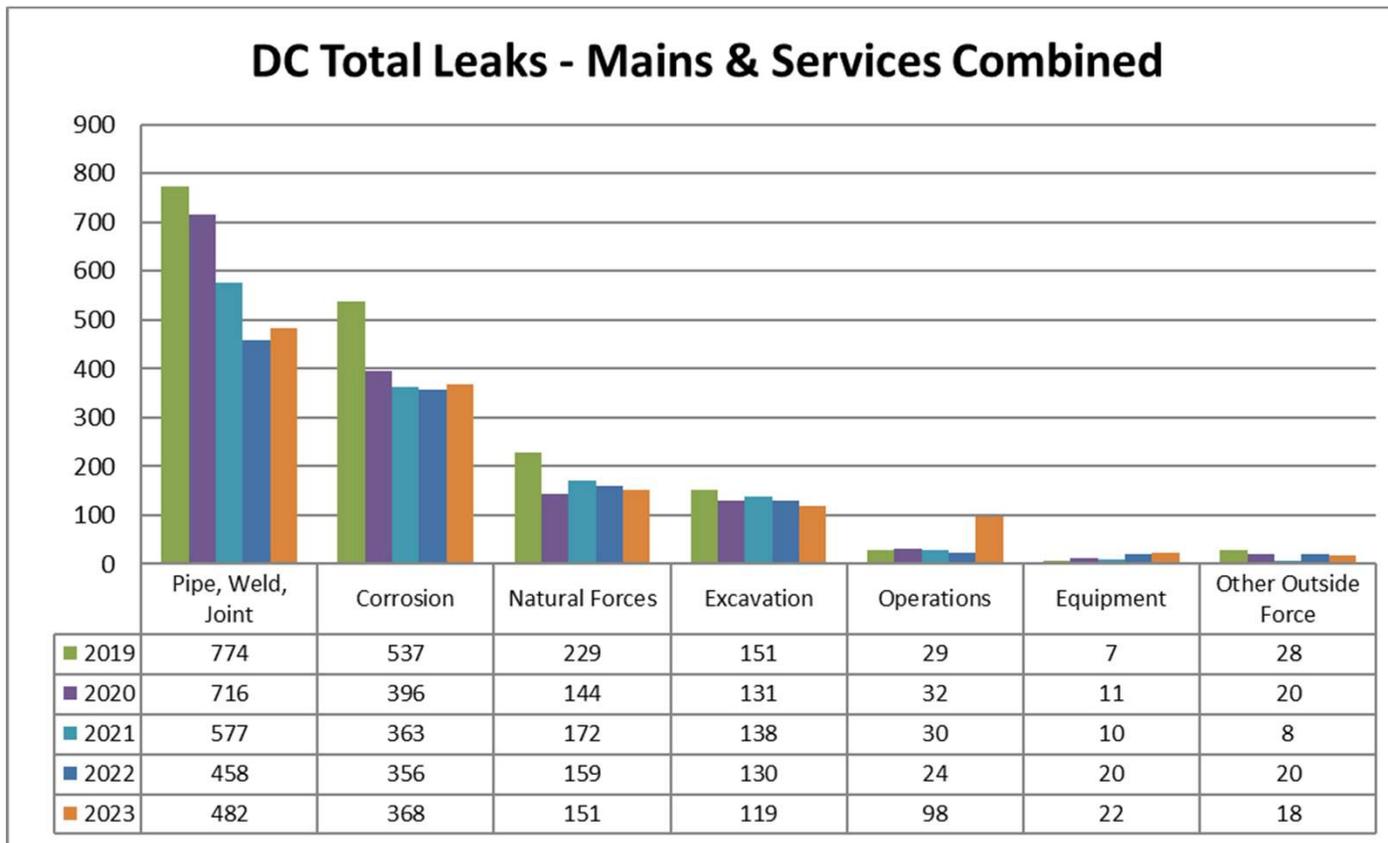


* 2019 to 2023 total leak counts for mains excluding leaks caused by excavation damage, incorrect operations, and other outside forces
Leak data lumps leaks from encapsulated VMC in VMC

DC DISTRIBUTION SYSTEM THREATS



DC DISTRIBUTION SYSTEM THREATS CONTINUED



Note: Data showing total leak counts in DC for mains and services combined.



LEAK AND RISK MITIGATION

JANA

Probabilistic Risk Analysis

Predicting Asset Performance
Dr. Ken Oliphant



CONFIDENTIAL
PROBABILISTIC RISK ANALYSIS

CERTIFICATE OF SERVICE

I, the undersigned counsel, hereby certify that on this 13th day of September 2024, I caused copies of the foregoing document to be hand-delivered, mailed, postage-prepaid, or electronically delivered to the following:

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