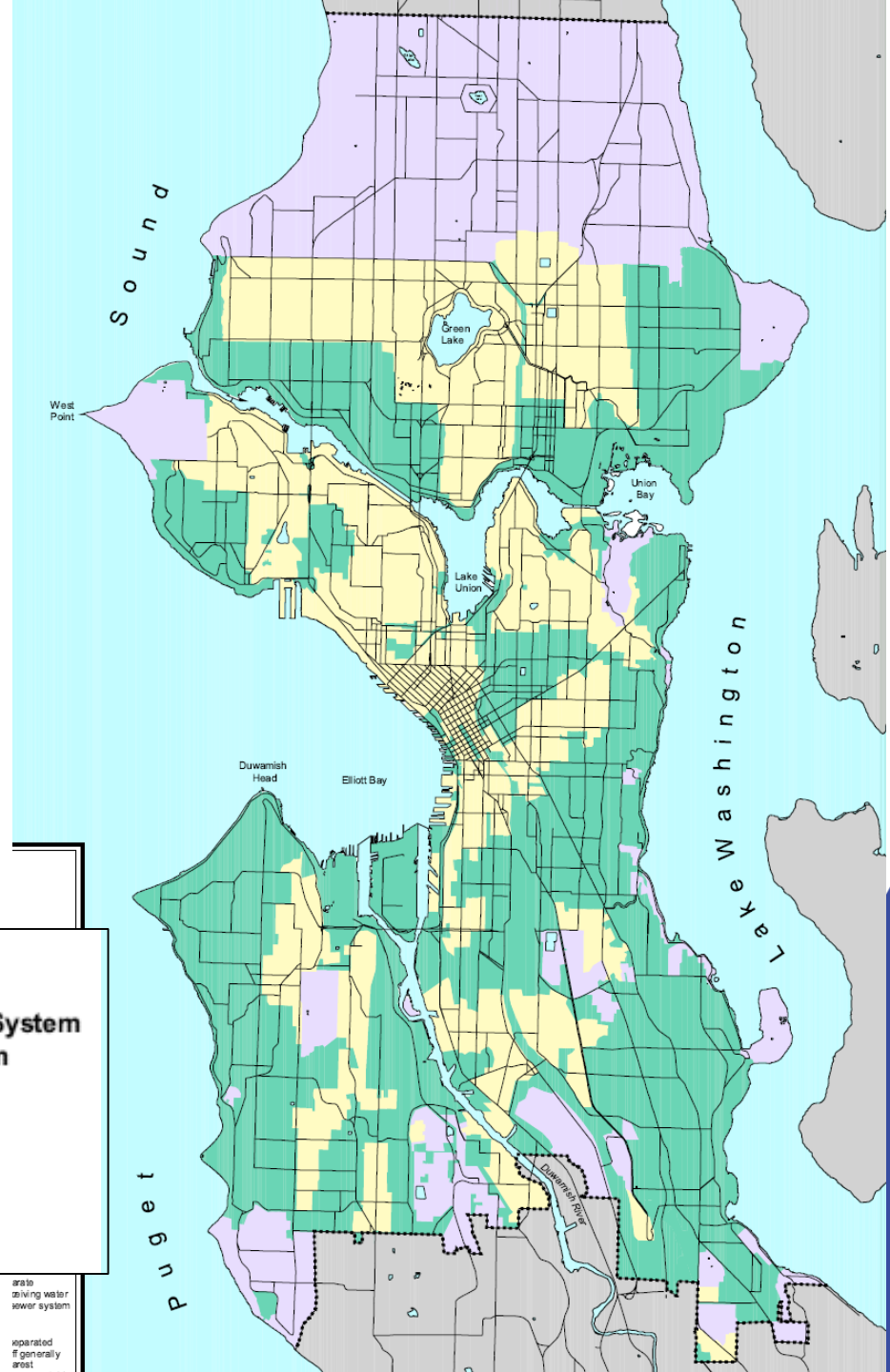
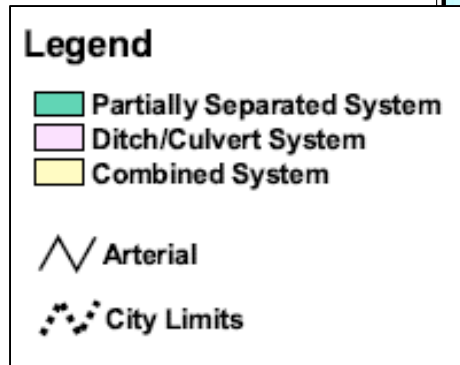


Capacity, Management, Operations, and Maintenance (CMOM)

Program Overview
2016-2020 Roadmap

Quick Drainage and Wastewater System Refresher

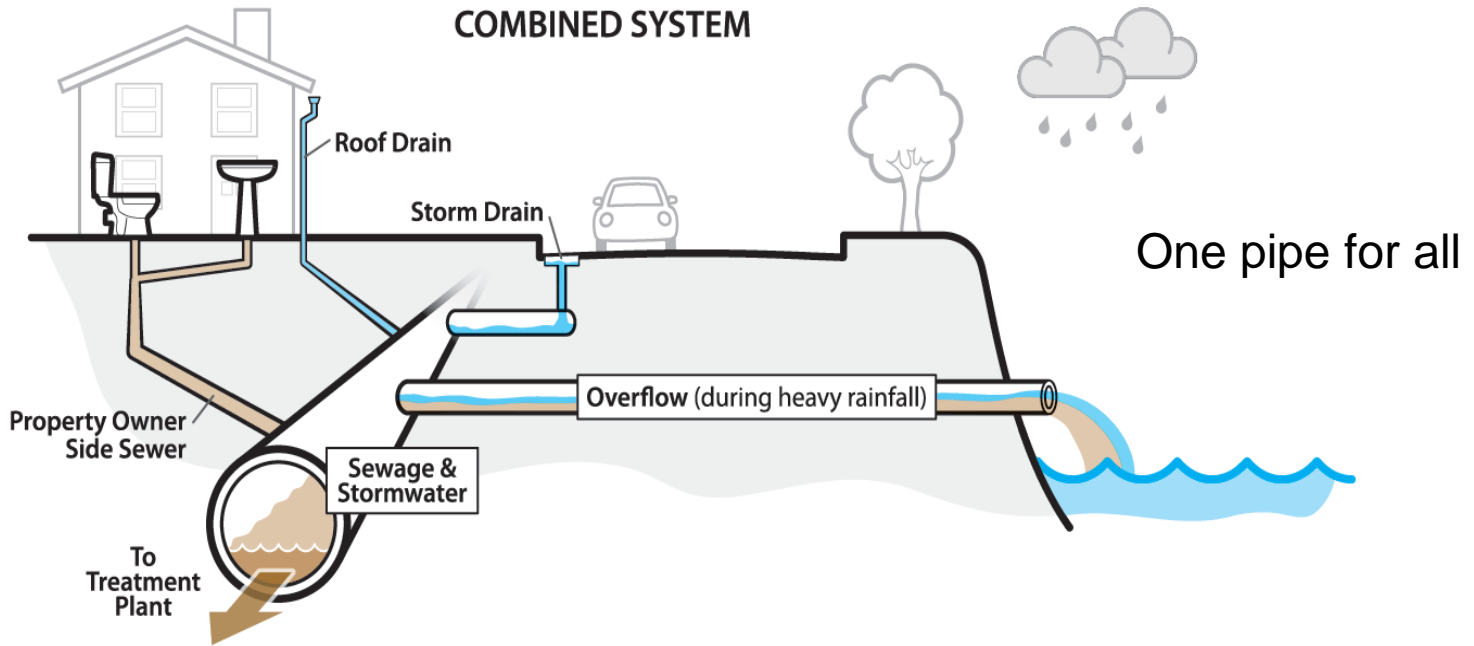
Seattle Drainage and Sewer Systems



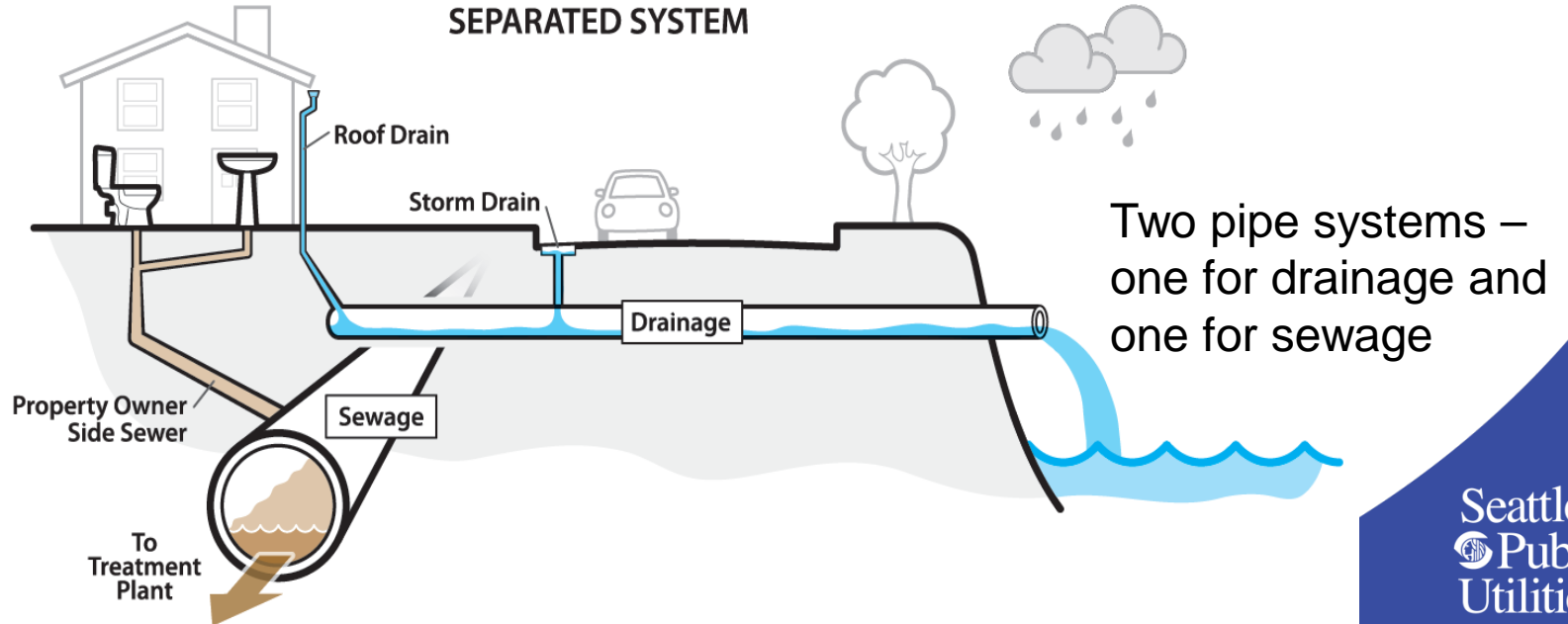
are to
aining water
lower system

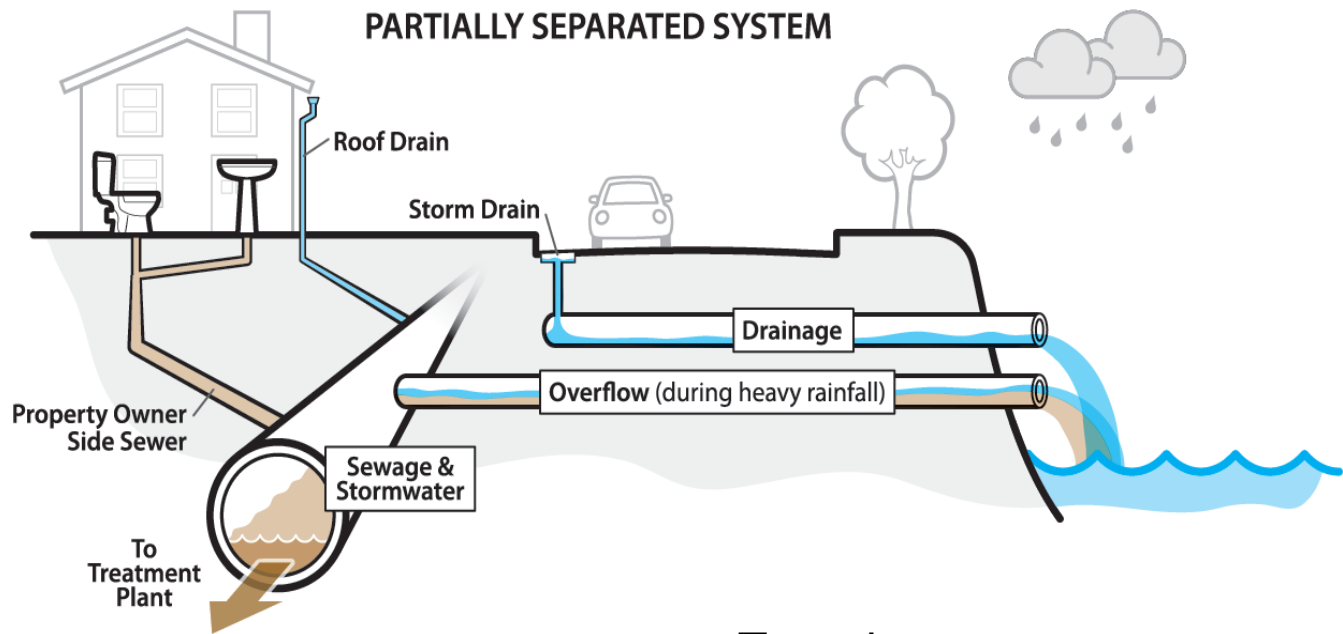
operated
if generally
are not

COMBINED SYSTEM



SEPARATED SYSTEM





Two pipe systems –
one for some drainage
and one for sewage

A stylized illustration of red curtains with a scalloped top edge, framing a white stage area. The curtains are drawn back, revealing the stage. The text "On with the show..." is centered on the white stage.

On with the show...

Program Overview

- Wastewater Goal: Collect and convey wastewater to the treatment plant to protect public health and the environment
- CMOM Program Goal: Sustainable and reliable infrastructure system
- Regulatory drivers:
 - Wastewater collection system National Pollutant Discharge Elimination System (NPDES) permit
 - Consent Decree
- Desired Outcomes: Reduction in sewer overflows and prevention of dry weather overflows.

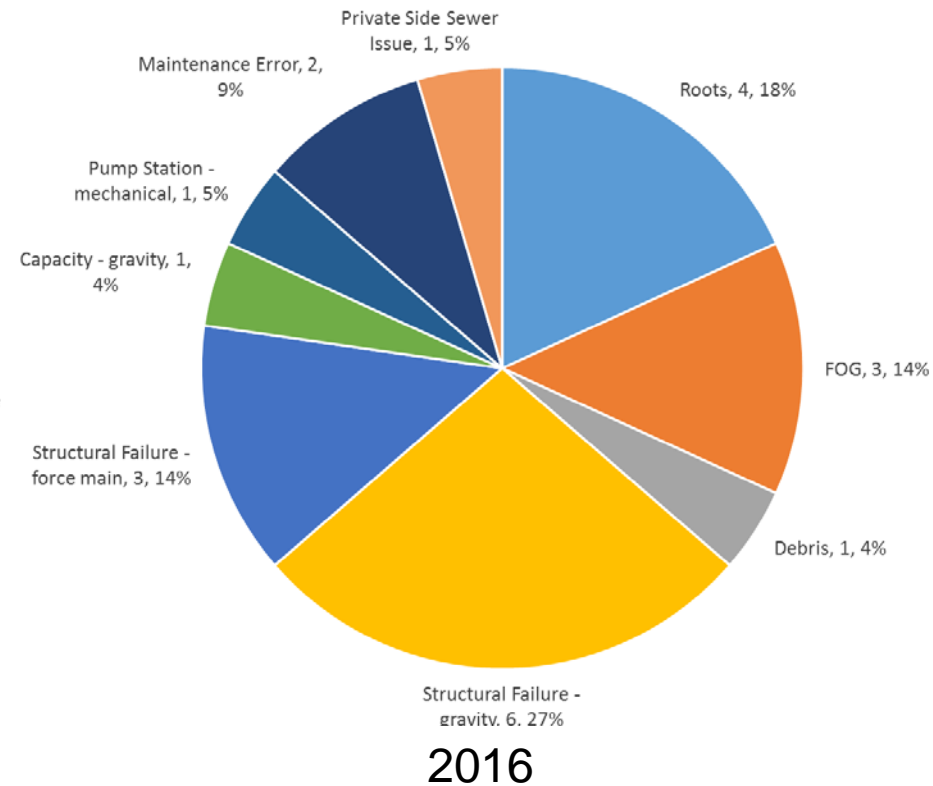
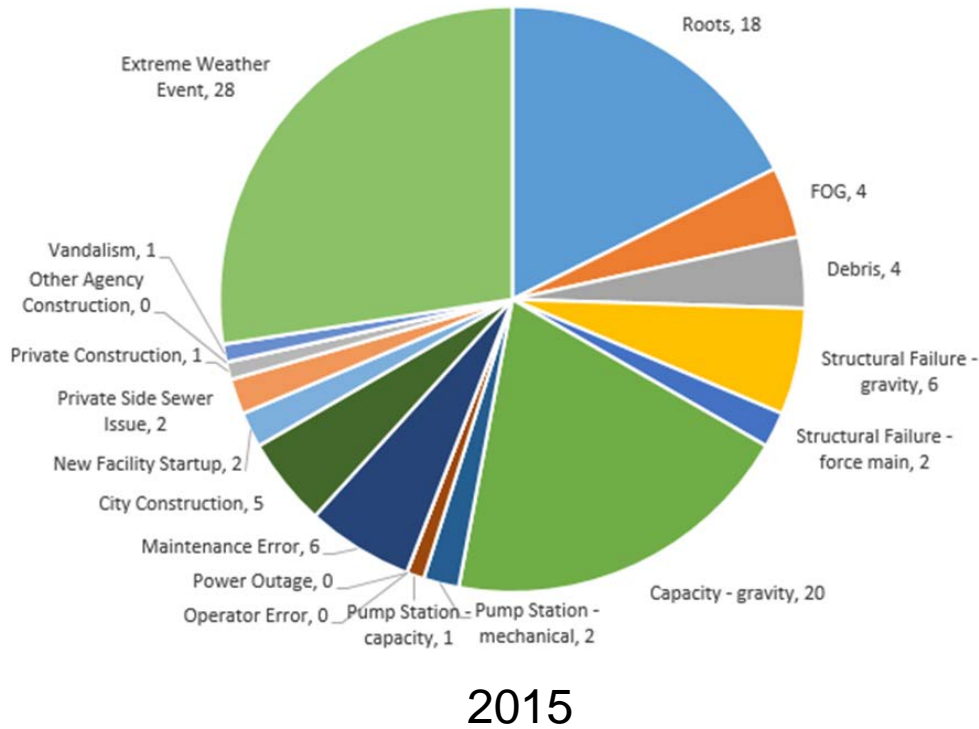
Terminology & Performance Measures

- **Combined Sewer Overflow (CSO)** – An overflow from one of our 86 CSO Outfalls that occurs as a result of rain
 - ≤ 1 /outfall/year on a 20-year moving average
- **Dry Weather Overflow (DWO)** – An overflow from one of our 86 CSO Outfalls that occurs when it's not raining
 - = 0 – these are prohibited
- **Sewer Overflow (SSO)** - An overflow that occurs anywhere else in the sewer system, whether or not it's raining.
 - ≤ 4 sewer overflows/100 miles/year over a two-year average
 - Overall reduction in number

Sewer Overflow Counts

	2015	2016 Through May
Total Sewer Overflows	102	22
Overflows that count towards performance goal	72	22
Annual performance #/100 miles of pipe	5.1	1.5
2-year average performance Goal <4/100 miles of pipe	3.8 (2014-2015)	3.3 (2015-2016)

Sewer Overflow Causes



CMOM Focus

Effective and continuous management, operation, and maintenance of Seattle's collection systems, including system rehabilitation and capacity.

- Maintain what we already have

CMOM is this:



CMOM is seldom this:



Strategies



- Understand the system and its condition
- Maintain the system and its components
- Work with customers to manage inputs, connections, and changes to the system
- Operate the system, monitor its performance and adapt in real time
- Plan ahead to address existing problems and anticipate future needs
- Renew and upgrade the system and its components

2016-2020 Roadmap Program Direction



- Enhance CMOM coordination and connectivity
- Increase efficiency and effectiveness in existing programs
- Build the sewer capacity program
- Strengthen the drainage business area

Enhancing Coordination and Connectivity: Vision and Initiatives

Vision for 2020+	Roadmap Initiatives
Well-organized, resourced and adaptive program	<ul style="list-style-type: none"> - Improve program management and communication (C1) - Refine performance reporting (C2)
SPU staff have line-of-sight and understand how their daily work contributes to fewer sewer overflows	<ul style="list-style-type: none"> - Adaptively manage program direction (C3) - Improve SOP management (C4)
Balanced and committed capital investments	<ul style="list-style-type: none"> - Develop renewal strategy (E6) - Develop wastewater master plan (CAP 3)

Increasing Effectiveness and Efficiency: Vision and Initiatives

Vision for 2020+	Roadmap Initiatives
Proactive and efficient asset renewal (pipes and pump stations)	<ul style="list-style-type: none"> - Develop renewal strategy (E6) - Develop pump station condition assessment (E7)
Complete condition assessment of all sewer pipes	<ul style="list-style-type: none"> - Develop condition assessment strategy (E2)
Improved management of fats, oils and grease (FOG) at food service establishments	<ul style="list-style-type: none"> - Improve FOG control at FSEs (E10)

Increasing Effectiveness and Efficiency: Vision and Initiatives

Vision for 2020+	Roadmap Initiatives
Proactive and increased root treatment	<ul style="list-style-type: none"> - Expand chemical root control (E4) - Develop cleaning strategy (E3)
System-wide cleaning by 2022	<ul style="list-style-type: none"> - Develop cleaning strategy (E3)
Field crews have the training, facilities, and equipment they need	<ul style="list-style-type: none"> - Upgrade crew facilities (E5) - Apprenticeship + Journey-level Program improvements
Increase in properly functioning side sewers	<ul style="list-style-type: none"> - Increase customer side sewer education (E11) - Develop side sewer assistance approach (E12)

Building the Capacity Program: Vision and Initiatives

Vision for 2020+	Roadmap Initiatives
<p>An adopted Wastewater Master Plan that addresses:</p> <ul style="list-style-type: none">- Development- Climate change- Industry innovation- Long-term wastewater system management- Capacity investments	<ul style="list-style-type: none">- Prepare wastewater model (CAP1)- Develop capacity level of service policy (CAP 2)- Develop wastewater master plan (CAP 3)- Develop I&I management policy (CAP 4)

Initiatives to Strengthen the Drainage Business Area

Vision for 2020+	Roadmap Initiatives
Well-organized, resourced and adaptive program	- Assess drainage storage facilities (D1)
SPU staff have line-of-sight and understand how their work contributes to flood reduction, public health and the environment	- Develop drainage roadmap (D2)
An adopted Stormwater Plan that addresses: <ul style="list-style-type: none"> - Development - Climate change - Industry innovation - Long-term drainage system management - Capacity investments 	



Final quiz:

What does CMOM stand for?