

working for clean rivers



ENVIRONMENTAL SERVICES
CITY OF PORTLAND

Council Item 535

Authorize a contract and provide for payment for the construction of the Eastmoreland-Woodstock Sewer Rehabilitation Project No. E10269 for \$12,000,000 (Ordinance)



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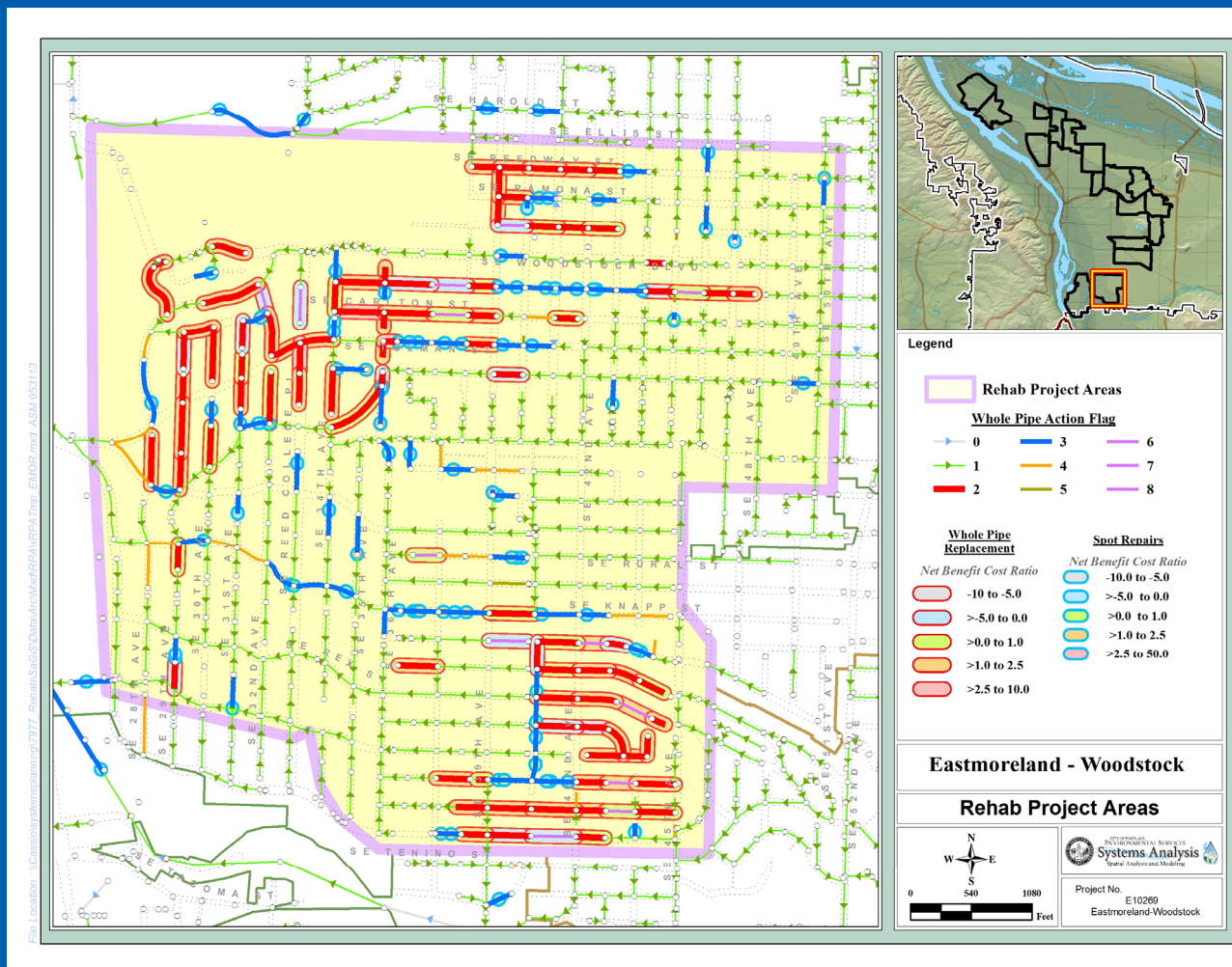


Eastmoreland Woodstock

- 40,000 Feet of Sewer Rehab
- 129 Manholes
- 700 House Branches
- 72 City Blocks Impacted
- \$12 Million



Project Map

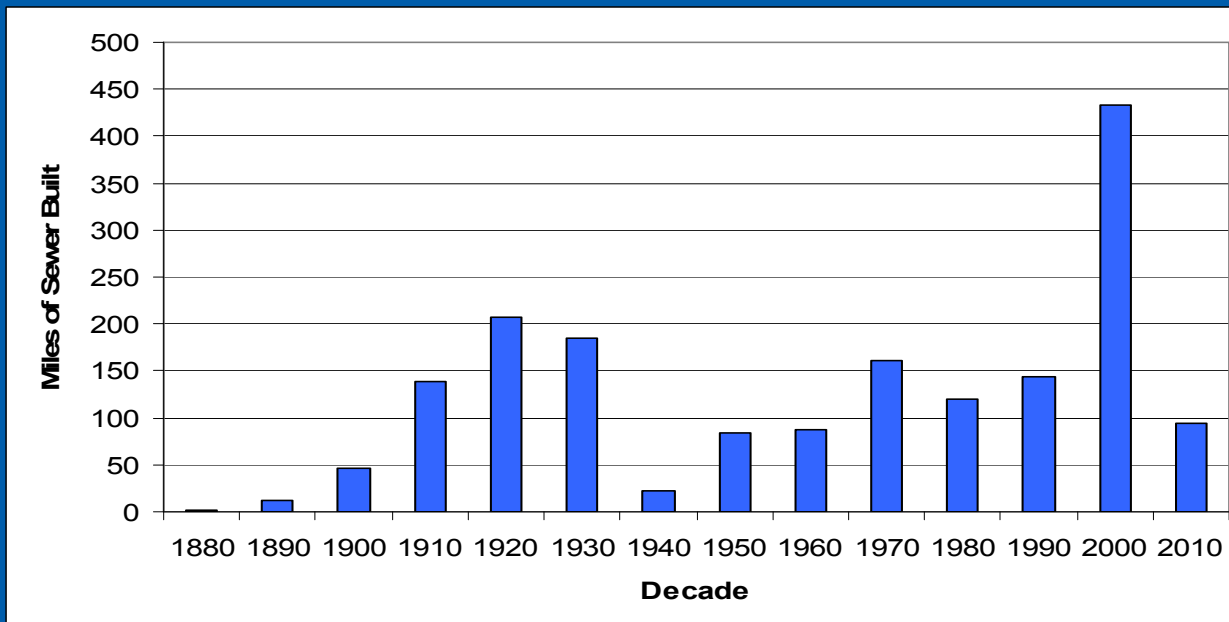


Pipe Failures In E-W



Environmental Services Engineering

Sewer Installation Legacy



- First sewer installed in 1864 for \$1,000
- \$6.5 billion replacement value of the collections system
- 9.6 million feet of mainline pipe



Risk Based Rehab

- Risk Matrix: simple illustration of relative ranking of asset risk
- Reflects Consequence and Likelihood
- Focus on critical projects

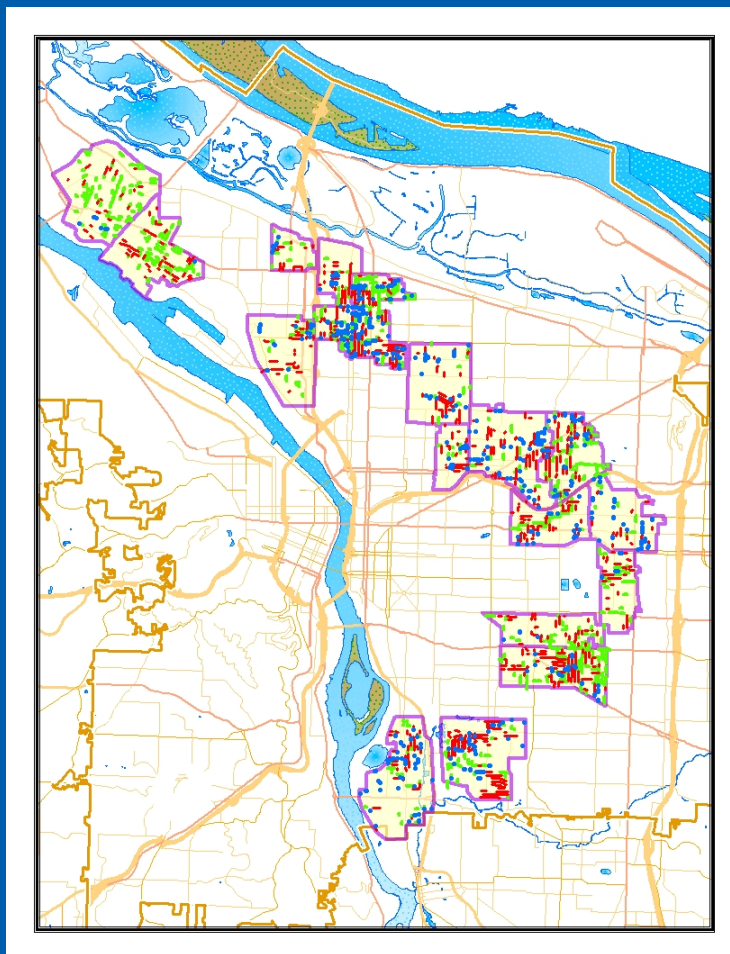
Relative Risk Rating Matrix

<i>(Failure)</i> Likelihood	Consequence <i>(Of Failure)</i>				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
5 Almost Certain	M	H	H	E	E
4 Likely	M	M	H	H	E
3 Moderate	L	M	H	H	H
2 Unlikely	L	L	M	M	H
1 Rare	L	L	M	M	H

Project



Phase II Rehab Program



- \$130 million program
- Started in 2011
- 4 Projects in construction
- 8 Projects in design
- 19 Projects Total



Questions?



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