OverviewSSO REDUCTION PROGRAM

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February 4, 2014



SSO Reduction Program

Overview

- Sanitary Sewer Overflows
- Consent Decree Overview
- Major Initiatives:
 - Cleaning
 - Visual Inspection
 - Capacity
 - Repair or Replace
 - Fix or Remove Lift Stations
- Projected Costs





Sanitary Sewer Overflows

- SSO = Unauthorized discharges of raw sewage from municipal sanitary sewers
- Caused by:
 - blockages,
 - main breaks,
 - sewer defects allowing storm water to overload the system,
 - operation & maintenance,
 - power failures at Lift Stations,
 - inadequate sewer design,
 - vandalism
 - etc.
- Clean Water Act



CD Overview:

UNITED STATES DISTRICT COURT WESTERN DISTRICT OF TEXAS SAN ANTONIO DIVISION

CONSENT DECREE

Time Line

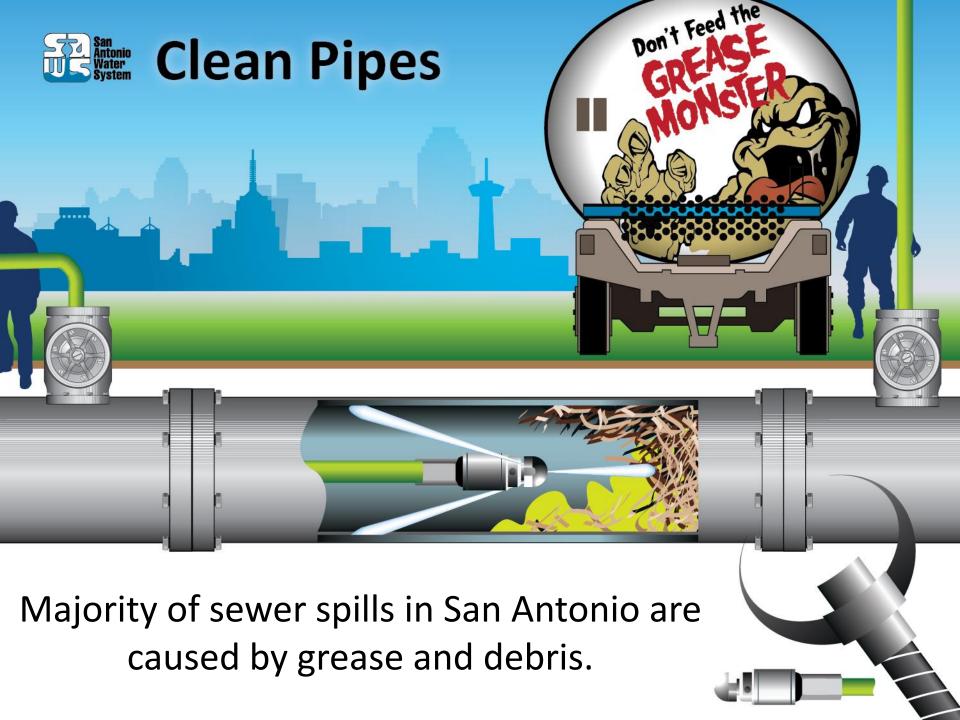
- 1. 2007-2013 Negotiations
- 2. July 23, 2013 Lodged
- 3. October 15, 2013 Entered
- 4. 10-12 Year Duration

• 8 Major Components:

- 1. Capacity, Management, Operation & Maintenance (CMOM)
- 2. Early Action Program
- 3. Condition Assessment & Remedial Measures
- 4. Capacity Assessment & Remedial Measures
- Lift Stations
- 6. Force Mains
- 7. Water Quality Program
- 8. Reporting

UNITED STATES OF AMERICA,	§	
and	§ 8	Civil Action No.
and	§	Civil Action No.
STATE OF TEXAS,	§ 8	
Plaintiffs,	§	
v.	§ 8	
	§	
SAN ANTONIO WATER SYSTEM,	§ 8	
Defendant.	§	
	§	





What we find...









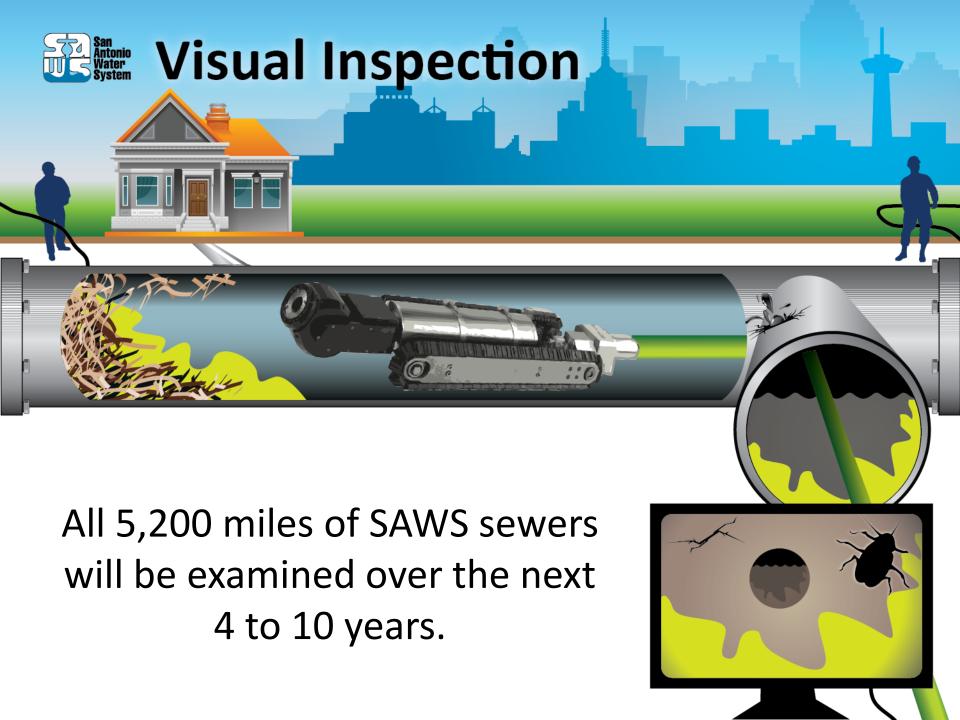






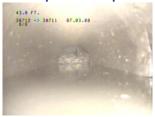






Examples of Pipe Condition

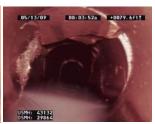
Collapsed Pipe









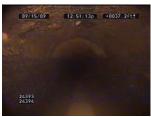


Missing Pipe/Hole in Pipe











Protruding Lateral









Protruding Gasket





Poor Point Repair







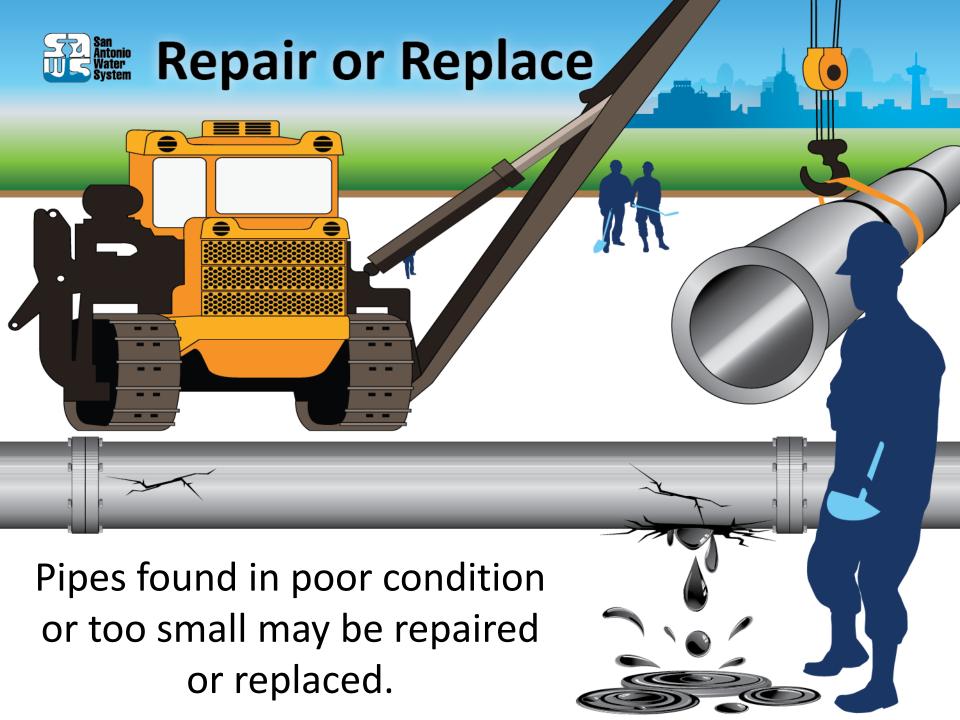






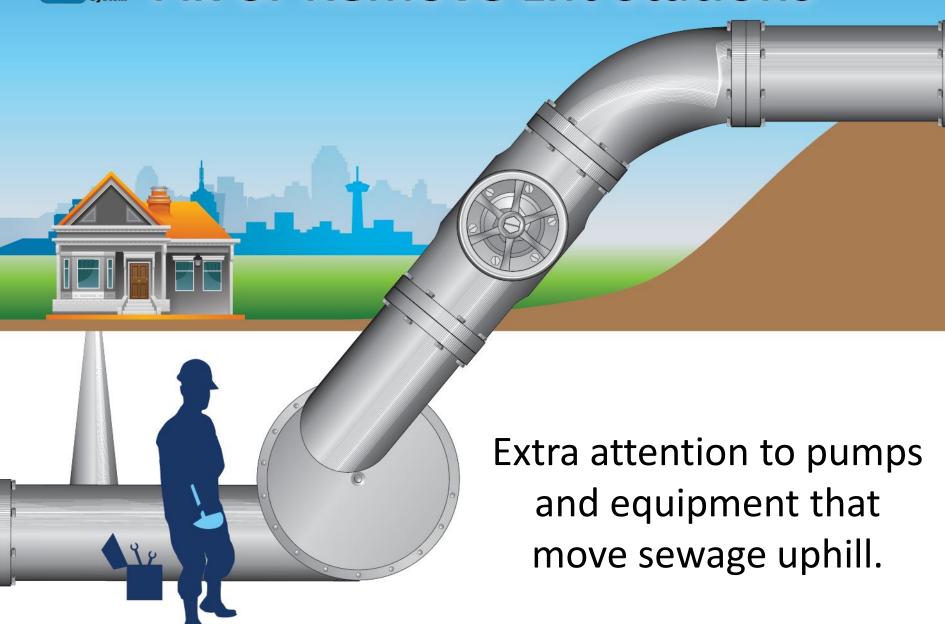
Pipes that are too small for the flow may need to be replaced.

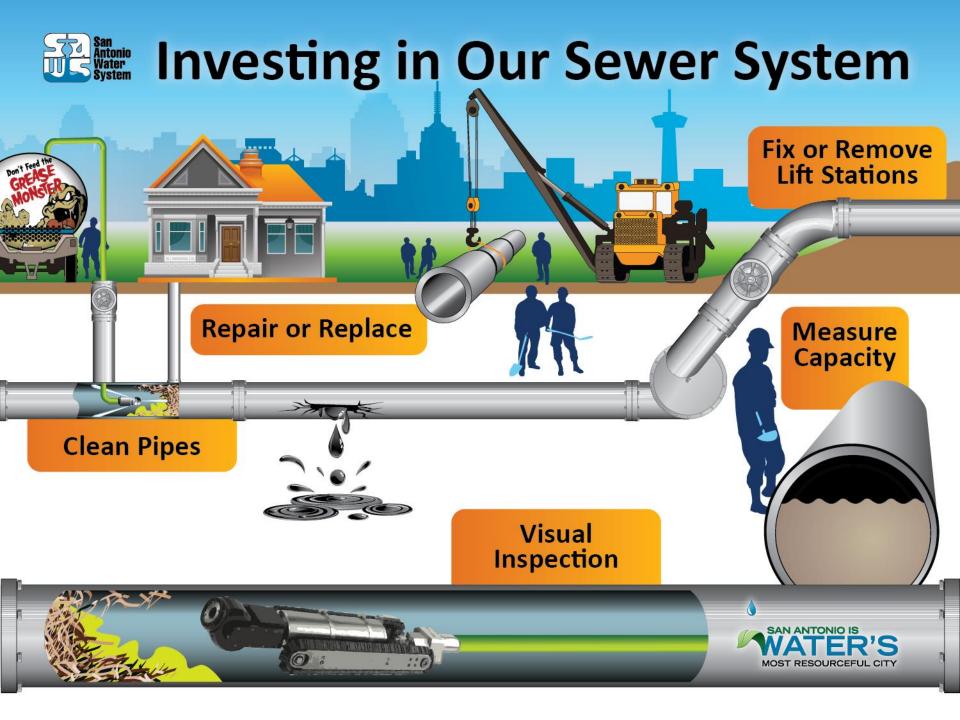






Fix or Remove Lift Stations





Projected Sewer System Investments

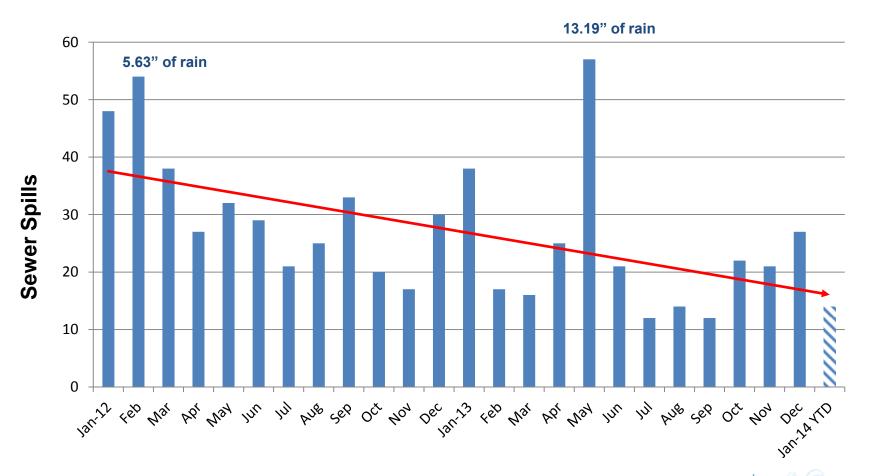
Projected Over 10 Yrs	Operating	Capital	Total
Total Investment After the Consent Decree	\$251.7 M	\$840.4 M	\$1.092 B

Consent Decree Summary

- The agreement with EPA is focused on reducing sewer spills and designed to be cost-effective
- It is a responsible investment that will protect our community and environment as well as improves service to our ratepayers

Sewer Spills Reduced 2012-2014 YTD

Sewer Investments are Working



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