



Consideration of Policy Change
Wastewater Laterals within
City Rights-of-Way
City Council Work Session
January 28, 2014
City of Fairfax
Department of Public Works

Richard C. Thoesen, P.E.

City Council Legislative Goal



“To set goals and guidelines and formulate policy for providing a variety of needed and/or desired municipal services to City Citizens. To insure that financial resources are well managed and available in order to meet the present and future needs of City Citizens.”

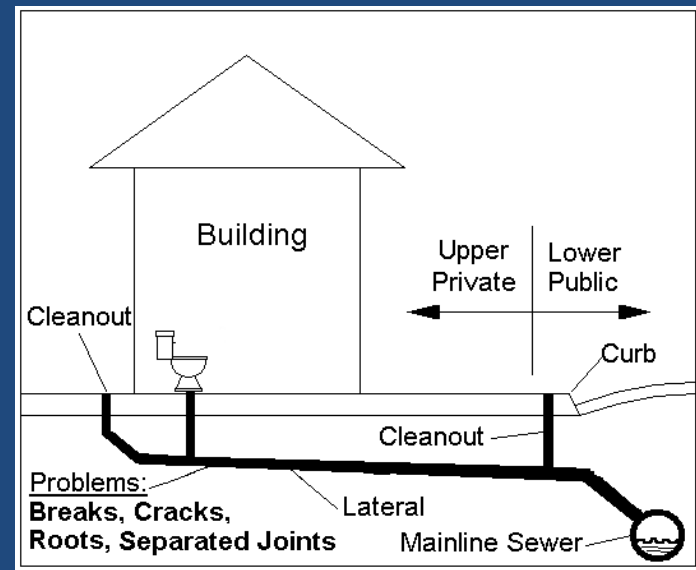
Fiscal Year 2014 Budget

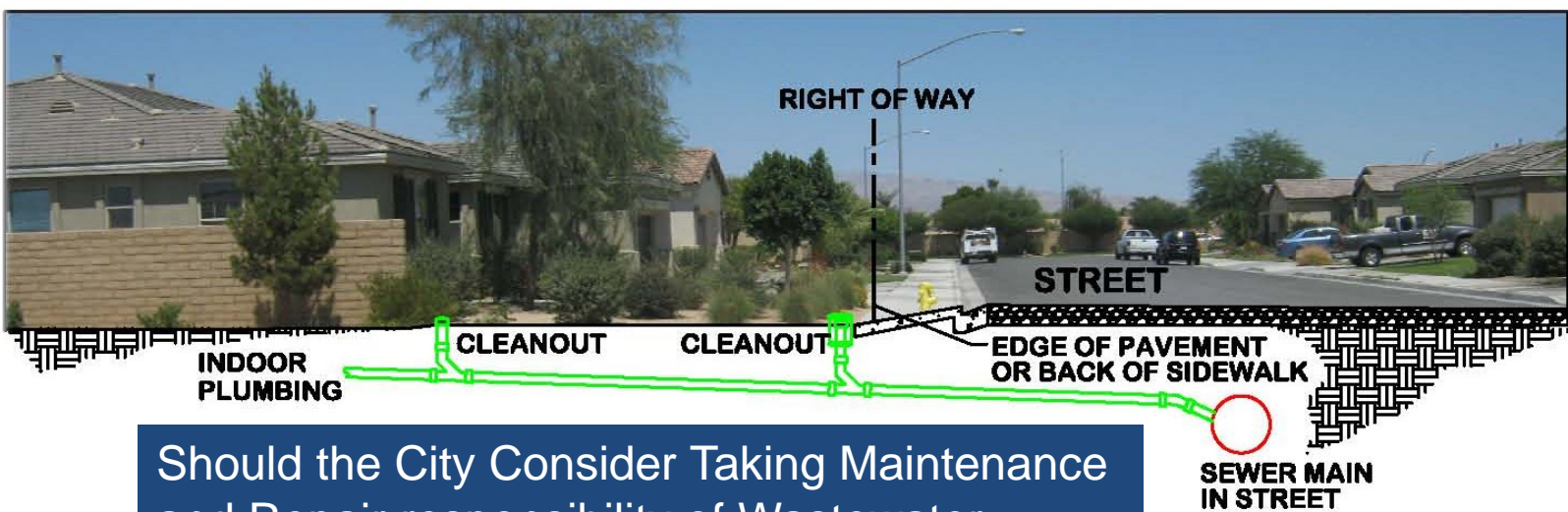
AGENDA

- A. Purpose of Work Session Item
- B. WERF Survey
- C. Wastewater Lateral Programs
 - 1. Conditional Assessments
 - 2. Comprehensive Programs
 - 3. Program Management
- D. Creating a Business Case

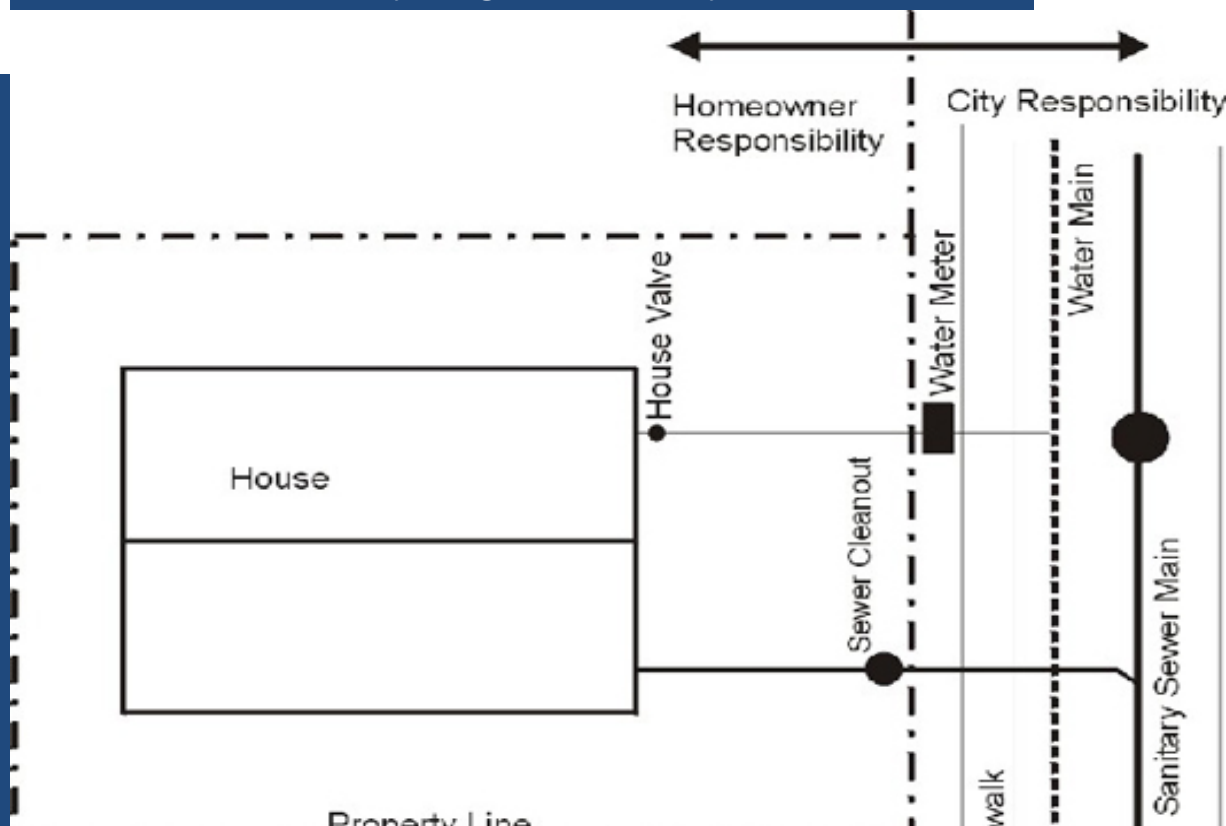
A. Purpose of Work Session Item

1. Understand the “Final Frontier” for Wastewater Infrastructure
2. Review Trenchless Solutions for Lateral Repair and Replacement (R & R)
3. Consider the Business Case for a Utility-Based Solution



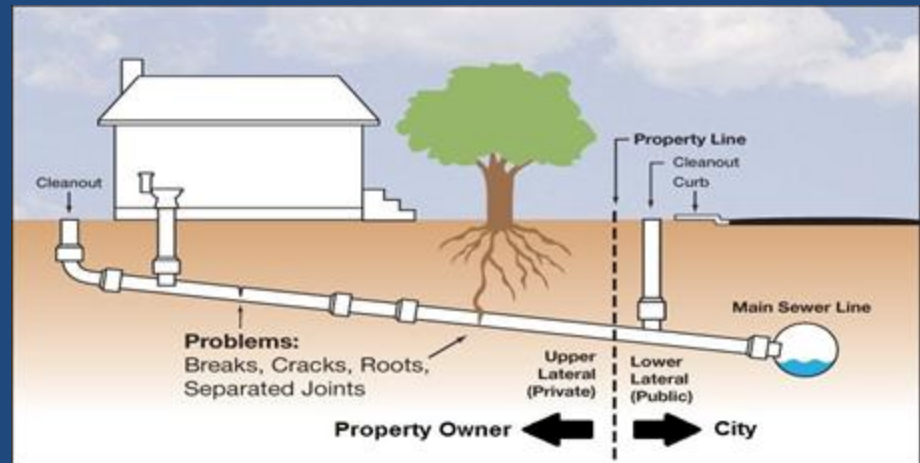


Should the City Consider Taking Maintenance and Repair responsibility of Wastewater laterals within City Rights-of-Way?



B.WERF Survey

1. Over 76,000,000 wastewater laterals in U.S.A.
(Census Bureau)
2. Private Owner Responsible from Structure to the Main (56%)
3. Private Owner Responsible from Structure to the Property Line (43%)



B.WERF Survey

Wastewater Laterals are given less attention than the remainder of the Wastewater System:

- HOMEOWNER:
 - Out of sight out of mind
 - Expensive to Inspect
 - Easy to ignore
- UTILITY:
 - Expensive to inspect
 - Too many to manage
 - Complex issue of Management Entity

B.WERF Survey

The Situation is Changing



Emergency
Repairs are
Expensive



There are Alternatives to
Conventional R & R

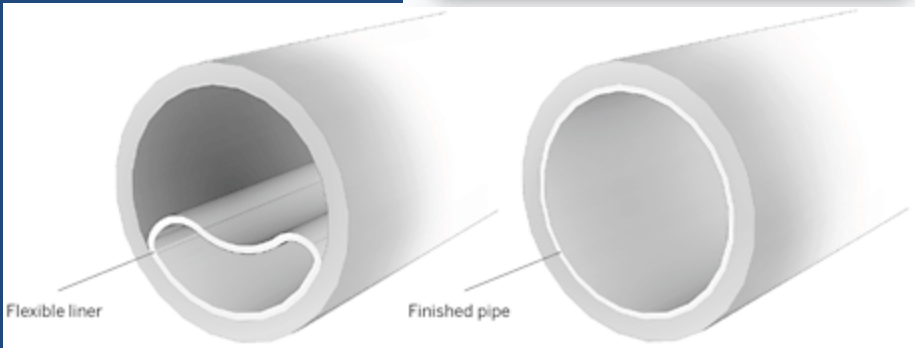


Preventive Construction is a
more economical solution

Things you never really
wanted to know

A Lining System

http://www.youtube.com/watch?v=AqnrvoP_ISk



C. Wastewater Lateral Programs

1. Conditional Assessments

- Rarely Accomplished
- Pipeline cracks, voids and breaks
- Infiltration
- Soil settlement
- Bellies (inverted siphons)
- Root invasion
- Lack of Preventive Maintenance
- AGE
- Collapsed Pipes = Emergency

C. Wastewater Lateral Programs

2. Comprehensive Programs

- Ordinance Support
- Inspection Program
- Program Responsibility
 - Management Entity:
 - Owner, or
 - Utility (City)
- Funding

C. Wastewater Lateral Programs

3. Program Management

- The “Easy Button”:
Home and Business Owner
- The Nature of a “Public Good”
- Point of Sale Inspection
- Notices of Violation
- Surcharges/Higher Commodity Charges
- Civil Penalties
- Property Liens

C. Wastewater Lateral Programs

3. Program Management

- Utility-Based Inspection and Repair Program
- Supporting or Being the Management Entity
- Funding

C. Wastewater Lateral Programs

3. Program Management

- Utility-Based Inspection Program
 - Closed Circuit TV
 - Ex-filtration Testing
 - Smoke Testing
 - Dye Testing
 - others.....

D. Creating a Business Case

- R & R Laterals within ROW
 - Not an Easy Business Case
 - 8,000 laterals
 - 50 year cycle
 - 160 per year average
- Dominion Power Insurance – A Start

D. Creating a Business Case

- Inspection of Laterals prior to street refurbishment
- Lateral Service Charges within Rates
Subject to Inflationary Increases
Reduce Infiltration and related
treatment cost at Noman Cole

D. Creating a Business Case

- Preventive Lining Program
 - Starting with older lateral systems
i.e., Orangeburg Pipe
 - Training and Development of
Outsource Capability
 - Develop Approved List of
Contractors for Customer
Competition
 - Contractors Meet Standards

Questions ?

Course of Action ?

