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# Risk Management

SERVICE AGENCY

## Managing Utility Liability Risks

Tale of Two Cities

Security  
Stability  
Service

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## Utility Liability

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## Sewer & Water Liability

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## Goals

- ▶ Increase your awareness of the various sources of water, & sewer liability.
- ▶ Provide practical tips and tools to reduce your liability.

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## Infrastructure Upgrades

- ▶ \$232B - \$402B needed for investment in drinking water systems (CBO)
- ▶ \$331B - \$450B needed to replace and build new wastewater infrastructure (EPA)
- ▶ Increased regulatory pressure

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## Negligence

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### Standard Of Care

- ▶ **CONSIDER . . .**
- ▶ Most cities require connection to water, and sewer systems.
- ▶ Most cities determine how both public and private portions of the system will be constructed.
- ▶ Most cities have design standards for utilities.

▶ 7 Oct. 2015

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### Standard Of Care

- ▶ Most cities retain ownership of the public portions of the system,
- ▶ Thereby controlling upkeep and operation

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### Standard Of Care

- ▶ **AFFECT:** THE LAW PLACES A HIGH DEGREE OF RESPONSIBILITY ON THE GOVERNMENT TO PREVENT DAMAGE.

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### Standard Of Care

- ▶ **THE STANDARD OF CARE IS "NEGLIGENCE"**
- ▶ "A city is not an insurer of the condition of its sewers; to charge it with damage caused by an obstruction in the sewers, **negligence** must be proved."

*Kempton v. City of Soap Lake*, 132 Wn.App. 155 (2006)

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### Elements Of Negligence

- ▶ **NEGLIGENCE IS THE FAILURE TO EXERCISE REASONABLE CARE**
- ▶ **TWO PRINCIPLE FACTORS:**
  - ▶ KNOW OR SHOULD HAVE KNOWN AND;
  - ▶ REASONABLE OPPORTUNITY TO CORRECT

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### Utility Locates

The owner of underground facilities, is required under **RCW 19.122.030(3)** to locate and mark their utility lines. Failure to properly locate or provide an excavator with the best available information on the location of your facilities and the location of all known service laterals may expose the municipality to a liability claim for damages from any subsequent property damage and/or financial losses associated with the failure to or improper locate.

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### Utility Locates



Once notified of a request, you have a **duty** to provide the excavator with **reasonably accurate** information regarding locatable underground facilities by surface-marking the location of the facilities.

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### Utility Liability

## ACTIONS THAT CAUSE LIABILITY

- ▶ Design
- ▶ Construction
- ▶ Contracts
- ▶ **Failure** maintenance and repair
- ▶ **Failure** to respond to changing circumstances

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### Design Liability



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### Design Liability

- ▶ SYSTEM INADEQUATELY DESIGNED
- ▶ SYSTEM DESIGNED ADEQUATELY BUT WITHOUT CAPACITY TO MEET ACTUAL DEMAND
- ▶ SYSTEM DESIGNED TO MEET TYPICAL BUT NOT FORESEEABLE DEMAND

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### Design Liability Loss Prevention

1. Thoroughly assess the demands that will be placed on the system
2. Research and select qualified design and construction professionals (due diligence)
3. Permanently retain all specifications, contracts, design documents, as-builts

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### Construction Liability



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## Construction Liability



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## Construction Liability



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## Construction Liability Loss Prevention

- ▶ Agency written specifications
- ▶ Agency written contracts
  - ▶ Legal counsel review
  - ▶ Risk Management Review
    - ▶ Insurance & Indemnification clauses
- ▶ On-site supervision
- ▶ Keep as-builts

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## Contracts



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## Contract Liability

*LIABILITY: To the maximum extent permitted by law, the City agrees to limit ABC's for damage to the sum of \$5,000, or ABC's total fee whichever is greater. This limitation shall apply regardless of the cause of action or legal theory pled or asserted.*

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## Contracts - Loss Prevention

- ▶ Agency drafts the contract
- ▶ Be careful with Inter-Local agreements
- ▶ Standard specifications
- ▶ Legal counsel review
  - ▶ Specs
  - ▶ Contract
- ▶ Risk management input on indemnification & Insurance language
- ▶ Certificates of Insurance

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**Maintenance Liability**

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**Maintenance Liability**

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**Maintenance Liability**

- ▶ Failure to inspect to discover problems
- ▶ Failure to respond to known problems
- ▶ Failure to document

**Maintenance Loss Prevention**

**Regular inspection and maintenance**

MAINTENANCE SCHEDULE (the “when”)  
 MAINTENANCE CHECKLIST (the “what”)  
 Retain maintenance records  
 Don't **limit** maintenance to a schedule

- Document, Document, Document

**Maintenance Loss Prevention**

**Changed Circumstances**

1985-2013 Population Growth

103% cities  
 11% unincorporated  
 53% state

| Year             | Cities (%) | Unincorporated (%) |
|------------------|------------|--------------------|
| 1985             | 49.9%      | 50.1%              |
| 1995             | 53.5%      | 46.5%              |
| 2005             | 61.0%      | 39.0%              |
| 2013             | 64.4%      | 35.6%              |
| 2023 (Projected) | -          | -                  |

Population projected to 764,000 by 2023

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### Changed Circumstances

“A city is liable for flooding to property required to be connected to its sewers, which though sufficient when constructed, have become insufficient to carry off the sewage and drainage conducted into them.”

*Boyer v. Tacoma, 156 Wn. 280 (1930)*

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### Changed Circumstances Loss Prevention

- Maintain proper capacity
  - Know your capacity
  - Know your load
  - Limit load (moratoria) or increase capacity (construction)
  - Utilize proper growth planning
  - Use Asset Management

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### Liability



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### Liability



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### Extraordinary Events



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### Extraordinary Events

THE RULE: “Whatever the rule may be as to ordinary surface water or rainfalls, it is settled that a municipal corporation is not liable for damages caused by an overflow of its sewers occasioned by extraordinary rains or floods. . . .”

*Tombari v. City of Spokane, 197 Wn. 207 (1938)*

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## Extraordinary Events

**THE EXCEPTION:**  
 "However, although the rain doing the damage be of an extraordinary character, yet if the negligence of the city in failing to keep the sewers open concurred and contributed to the damage, then the city has been held liable. And if drains are so inadequate that they cannot take care of the water in case of an ordinary storm, the municipality is not relieved from responsibility because the rainfall was extraordinary."

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## Liability Loss Prevention



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## Asset Management



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## Asset Management

1. How can assets fail?
2. How do assets fail?
3. What are the likelihoods (probabilities) and consequences of asset failure?
4. What does it cost to repair the asset?
5. What are the other costs (social, environmental, etc.) that are associated with asset failure?

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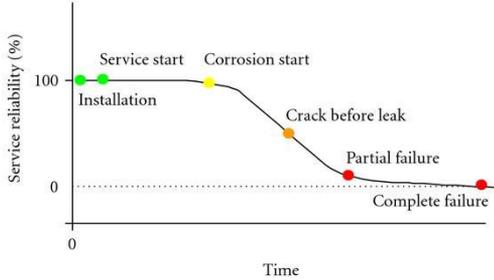
## Asset Management

6. What is the current state of my assets?
7. What is my required "sustainable" level of service?
8. Which assets are critical to sustained performance?
9. What are my minimum life-cycle costs?
10. What is my best long-term funding strategy?

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## Asset Management



Service reliability (%)

Time

Installation, Service start, Corrosion start, Crack before leak, Partial failure, Complete failure

**Water Mains**



Seattle 8-inch – 50 yrs old

4 inch – 80 yrs old

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**What's the Current State Of My System's Assets?**

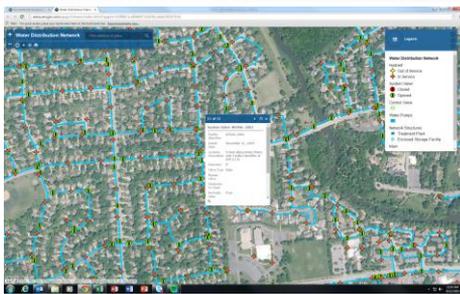
1. Preparing an asset inventory and system map.
2. Developing a condition assessment and rating system.
3. Assessing remaining useful life by consulting projected-useful-life tables or decay curves.
4. Determining asset values and replacement costs.

**Asset Management**



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**Asset Management**



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**Asset Management Advantages**

1. Moving from reactive maintenance to predictive maintenance.
2. Know the costs & benefits of rehabilitation vs. replacement.
3. Looking at lifecycle costs, especially for critical assets.
4. Deploying resources based on asset conditions.

**Asset Management Advantages**

5. Analyzing the causes of failure to develop specific response plans.
6. Improving response to emergencies.
7. Improving security and safety of assets.

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## Water Mains

- ▶ Most water main breaks occur on cast iron pipes, and cast iron pipes from 1950-1964 have a higher break frequency than older pre-1950 cast iron pipes.

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## Check Up Program for Small Systems (CUPSS)

- CUPSS is a free, easy-to-use, asset management tool for small drinking water and wastewater utilities.
- CUPSS provides a simple, comprehensive approach based on EPA's highly successful Simple Tools for Effective Performance (STEP) Guide series. Use CUPSS to help you develop:
  - A record of your assets;
  - A schedule of required tasks;
  - An understanding of your financial situation;
  - A tailored asset management plan.

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## Resources

- ▶ <http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/index.cfm>
- ▶ <http://water.epa.gov/infrastructure/drinkingwater/pws/cupss/index.cfm>
- ▶ <http://www.watereum.org/resources/resource-toolbox/>
- ▶ <http://www.hindawi.com/journals/ace/2010/818597>

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## Questions

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▶ 52 Oct. 2015