





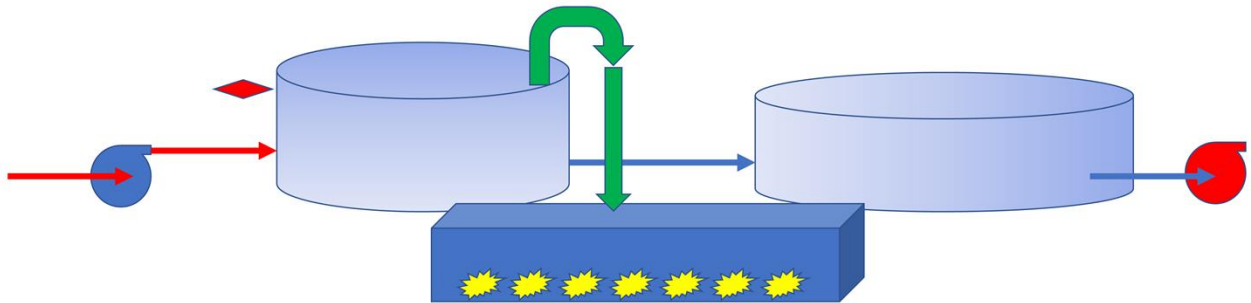
# King County

Washington State





The flow



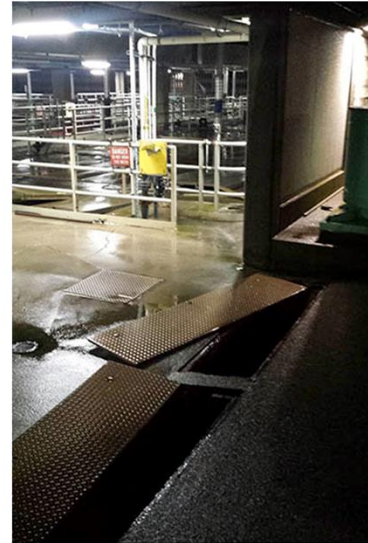


## The Event

- West Point Treatment Plant
  - Feb. 9, 15 and 16 totaling 235 million gallons
  - including 30 million gallons of raw sewage
- 
- By Christine Willmsen and Lynda V. Mapes, *Seattle Times* staff reporters
  - Published April 28, 2017















## The Damage

- The flood at the West Point Treatment Plant caused an estimated \$25 million in damage and required replacement or rehabilitation of
- 1 mile of tunnel,
- 2 miles of insulation,
- 151 electrical motors,
- 125 electrical panels,
- boilers and
- more than 1,000 outlets and switches.





## Inactivity

- Known issue
- No action
- No formal obligation via Risk Analysis
- No AM system

The Reach



## Lead

- National Legacy issue
- The challenge
- Beneath the surface
- Records
- Sleeper issue
- Limelight when crisis
- Costly
- Very personal

## The Cause

- Change in source water = change in chemical profile
- 
- Change in something called Langelier's index... measure of corrosiveness
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- Resulted in a solubility of lead
- ...and Asset degradation / performance degradation ( no poison)  
Containment ( additional consequential)





## Value from Assets

- Value from assets - Not negative value (Poison)
- Lesson for AM:
- Micro: AM - insufficient risk analysis, leadership (politics over technical)
- Macro: AM is not relegated only to maintenance exercise





## The Reach...

- It is an operational issue
- A regulatory issue
- A public health issue
- 
- **A comprehensive coordinate set of activities...**