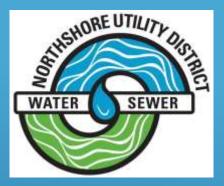
# RESIDENTIAL FIRE SPRINKLERS

Carl Lunak





## NORTHSHORE UTILITY DISTRICT

- Service area includes 5 cities
  - ► All of Kenmore
  - About 1/3 of Kirkland
  - ► Bothell
  - ► Lake Forest Park
  - ► Woodinville

- ► 22,000 Water Connections
  - Primarily single family residential
  - Growing multifamily
  - Small Commercial
  - Bastyr University
  - Evergreen Hospital

### THE ORDINANCE

#### City of Kenmore

"An approved fire sprinkler system shall be installed in new one-family and two-family dwellings and townhouses"...



## THE DISTRICTS CONCERNS

- Impact to water system
  - Long term forecasting
  - Engineering design specifications
- Increase in required backflow assemblies
  - Increased workload
  - Cross connection staffing
- Liability issues delinquent accounts
- Coordination with Kenmore & Northshore Fire

- My concerns
  - ► MORE WORK!

### THE PROCESS

- ► Kenmore & Northshore Fire
- ► 2 stakeholders meeting
  - ► City
  - ► Fire District
  - Master Builders Association
  - Plumbers
  - ► Fire Sprinkler Contractors
  - Northshore Utility District
- Everyone had concerns



Jeff LaFlam – Fire Marshal /

### Growth Opportunities (aka obstacles)

- 1. Impact to water system
- 2. Liability
- 3. Meter size and cost issues

#### How it was addressed

- 1. Education
  - 98% of residential fires put out by 1 or 2 heads – 13 g.p.m. per head
- 2. The District already had legal opinion on liability of shut off accounts
- 3. N.U.D. connection charges are based on use so no change to connection fees.
  - 1. Meter upgrade cost \$55.00
  - 2. Already using 1" setter and service line

### COLLECTIVE PROBLEM SOLVING

### Growth Opportunities (aka obstacles)

- 1. Coordination with "the Authority having jurisdiction"
- 2. Multi-purpose, flow through, passive purge, traditional 13D

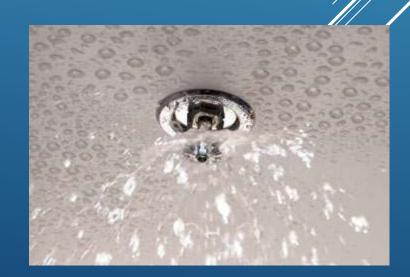
#### How they were addressed

- 1. Jointly produced form
- 2. Education & shared definitions
  - 1. "Flow-through fire protection system" means a fire sprinkler system that:
    - Is supplied only by the purveyor's water;
    - Does not have a fire department pumper connection;
    - Is constructed of approved potable water piping and materials to which sprinkler heads are attached and
    - Terminates at a connection to a tellet or other plumbing fixture to prevent stagnant water.

## COLLECTIVE PROBLEM SOLVING

### MOST IMPORTANT – MY WORK LOAD

- ► Jointly develop a form with Northshore Fire District
  - Verify type of system
  - Confirm built as designed
    - ► No required inspection for NUD!
- Majority of large builders installed flow-through systems
  - ▶ 2012 80%
  - ▶ 2013 75%
  - ► Last estimate averaging 60%

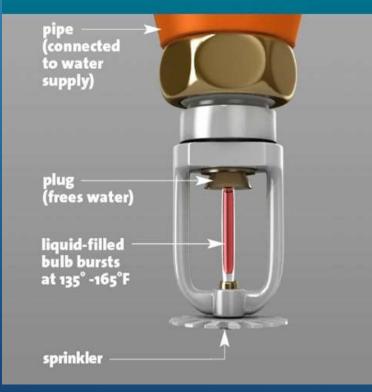


## BY THE NUMBERS

- From 2012 2018 single family fire sprinkler systems
  - ► Started with 120 +/-
  - ► Added 425 +/- \*\*
- ► There are 8 "locally" already in place
  - 1. Bonney Lake
  - 2. Camas
  - 3. Dupont
  - 4. Kenmore
  - 5. Mercer Island
  - 6. Olympia
  - 7. Redmond
  - 8. Tukwila

#### HOW HOME FIRE SPRINKLERS WORK

A typical home fire sprinkler covers a minimum 12 X 12 foot area.



### PREPARING FOR AN ORDINANCE

- Review your connection fees, rates, facilities charges etc.
- Evaluate service line specifications and meter size
- Continue to build relationships with jurisdictions you serve
- Promote your utility keep your rate payers on your side!

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### QUESTIONS?

