



# City Council

## Copper Pinhole Leak Investigation

September 8, 2020



CITY OF  
**FOLSOM**

# Copper Pinhole Leaks



CITY OF  
FOLSOM

- First call on July 20, 2020
- City database currently has 620 reported (as of 9/2/2020)
- Reported throughout the City – not isolated to one area
- Trends
  - Mostly houses in the 1980s, 1990s and some early 2000s
  - Mostly on horizontal pipelines
  - Mostly in cold water lines

# Regulatory Requirements for Treatment



CITY OF  
FOLSOM

- Bacteriological sampling (total coliform)
- Inorganic chemicals (aluminum, mercury, asbestos, arsenic, etc.)
- Organic chemicals (volatile and synthetic)
- Secondary Contaminants (copper, iron, turbidity, odor, etc.)
- Radiological (radium and uranium)
- Stage 1 Disinfection Byproducts Rule (chlorine residual, total trihalomethanes, and haloacetic acid)
- Stage 2 Disinfection Byproducts Rule (tightens Stage 1 rule)
- Lead and Copper Rule

# Folsom's Water Treatment Process



CITY OF  
FOLSOM

- Raw water received from Folsom Reservoir
- Pre-treatment
  - Aluminum chlorohydrate (ACH) – main coagulant
  - Polymers – aid in sedimentation/flocculation
  - Sodium hypochlorite – taste and odor
- Filters
  - Sand/anthracite media filter – purification and clarification of water
- Chlorine Contact Tank
  - Sodium hypochlorite (maintain about 1.2 ppm leaving the plant)
  - Hydrated lime (target pH of 8.2-8.5 leaving the plant) for PH adjustment and corrosion control
- Distribution – actual results
  - pH (ranges from 7.7-8.2)
  - Chlorine residual (ranges from 0.7 ppm to 1.2 ppm) – regulatory range is 0.5 ppm to 4.0 ppm

# City Actions



CITY OF  
FOLSOM

- Conducted water quality sampling near affected homes
- Compared results to previous years' results
  - Lab analysis shows water quality parameters consistent with previous years' results
- Contracted with Black and Veatch to:
  - Conduct water quality evaluation and analysis
  - Virginia Tech will conduct pipe forensics analysis
- Routing contract with HDR to conduct similar analysis
- Reached out to other water agencies experiencing similar leaks

# Analysis and Results



CITY OF  
FOLSOM

- Analysis and preliminary results expected in mid-September
- Comparison of City's situation to the following:
  - Cobb County Water Service (Georgia)
  - State of Maryland Task Force
  - Washington Suburban Sanitary Commission (Washington, DC)
- City's use of chemicals similar to neighboring water agencies

# Report a Leak, Learn More



CITY OF  
FOLSOM

- For questions or to report a pinhole leak:
  - Call 916-461-6190, or
  - Email [waterquality@folsom.ca.us](mailto:waterquality@folsom.ca.us)
- Pinhole Leak Webpage:
  - [www.folsom.ca.us/pinholeleaks](http://www.folsom.ca.us/pinholeleaks)
- Community outreach:
  - News media
  - NextDoor
  - Facebook
  - Twitter
  - E-newsletter
  - City website



CITY OF  
**FOLSOM**

# QUESTIONS?