



Detecting and Repairing Leaks



#### **Topics of Discussion**

- So I have a leak what's the big deal?
- Detecting Leaks
- Repairing Leaks
- When is it the City's responsibility?





## Impacts of Leaks

- Common Water Loss Examples
  - Leaking toilet = 21,600 gal/month
  - Drip Irrigation at 1 GPM = 43,200 gal/month
  - Unattended Water Hose (charged hose) = 5,400 GPD
  - Broken Service Line 1 night = 8,100 gallons
  - Stuck Ice Maker = 86,400 gal/month
  - 1/16" pinhole = 114,200 gal/month
  - $-\frac{1}{2}$ " hole (complete failure) = 1,827,000 gal/month

Source: Simply Leak Detection





## **Detecting Leaks**

- What does a leak look like?
  - Subtle wet spots
  - Puddling
  - Discoloration









## **Detecting Leaks**

- What does a leak sound like?
  - Hissing
  - Whooshing
  - Rumbling





## **Detecting Leaks**

- I don't hear or see anything, can I still have a leak?
  - Toilet Leaks
  - Irrigation Leaks





## Repairing Leaks

- Pipe types
  - Copper, Pex
  - Steel, Brass, PVC
- Fitting types
  - Thread
  - Solvent
  - Solder
  - Compression/Shark Bite





# Repairing Leaks

When is it time to call the plumber?







# Repairing Leaks

- Repair scenarios
  - Leaking valve/fitting or complete pipe failure



Pinhole leak







## **Detecting leaks**

- Prevention when installing pipe
  - Wrap the pipe
  - Insulate your pipe
  - Install a pressure regulator
  - Allow yourself easy access









Main breaks









## City Responsibility

- Turning off water
  - Everybody should have a separate house valve aside from the city shut off
  - Do not operate the city curb stop
  - Old, fragile infrastructure
  - You break it you buy it





## City Responsibility

- Unaddressed leaks
  - Distribution system is first and foremost for fire protection
  - If we see a leak go unattended, especially after making contact, we will shut the water off
  - When leaks happen in distribution system during busy times it may take us some time to get there (when it rains it pours)





#### Comments & Questions

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