



# Backflow assembly testing is easy, what else is there to do?

National Water for Health and the Environment Conference

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**Backflow assembly testers** are skilled professionals and front line protectors of safe drinking water and the public health.

# Backflow assembly testing is easy, what else is there to do?



## The Tester is also an Engineer...

Water system hydraulic analysis - why is the relief valve on my backflow discharging?  
Has to be debris or defective product, right?

Problem Statement – The Lincoln Memorial in Washington D.C. was rapidly deteriorating

Why 1: Because harsh chemicals applied by pressure washers are frequently used to clean the monument

Why 2: Because of the large number of bird droppings on the monument

Why 3: Because the large population of spiders in and around the monument are a food source to the local birds

Why 4: Because vast swarms of midges, on which the spiders feed, are drawn to the monument at dusk

Why 5: Because the lighting of the monument in the evening attracts the local insects from the Potomac river

Solution – Wait one hour after dusk to turn on the monument illumination to prevent attraction of the swarming midges



*Deep understanding of the root causes of our problems yields simpler, more effective, and less costly solutions*

# Backflow assembly testing is easy, but the tester is also

## a Rules Compliance Officer...

### Site surveys

- Rules compliance, know the rules and what is needed to reach compliance
- Learn multiple test forms as each AHJ may have different reporting requirements including online report submission.

### When changes occur to the plumbing system or how water is used on site, know when a backflow upgrade is needed

- Improper and unsafe installations are approved which testers must test
- Need knowledge of approved assemblies and approved installation orientations
- Is the assembly approved for vertical flow up and/or vertical flow down?
- Has the assembly been modified, voiding the approval?
- Are all the visible system isolation valves in compliance and open or closed properly?

**Whistleblower** – What do you do when you see property and/or testers not in compliance?  
What is your liability?



# Backflow assembly testing is easy, but the tester is also

## a Safety Compliance Officer...



### Environmental hazards present?

- Air quality
- Electrical
- Slip / Fall
- Pests and deadly critters

### Confined space

- Dangers of deadly gas or RV discharge

### Indoors

- Tight space restricts safe access to test, maintain or repair

### Outdoors

- Traffic safety
- Vehicle parking

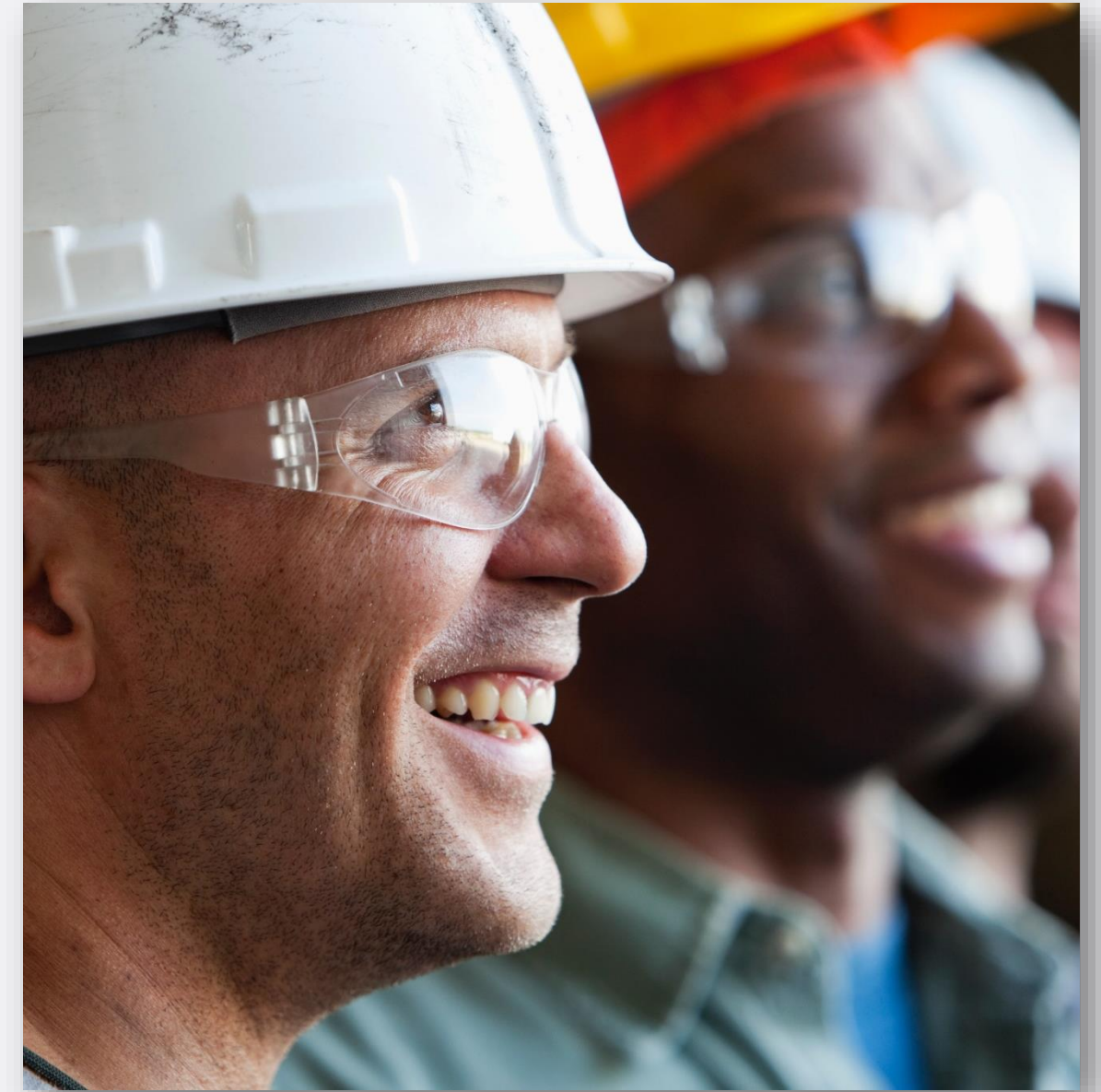
### Assembly accessibility

- Do I need a ladder?
- Is there a safe work platform?
- Do I need a lift or other assistance?

# Backflow assembly testing is easy, but the tester is also a Mechanic...

If the tester does maintenance and repair, they must...

- Be a competent mechanic and have knowledge of all BFP's past and current.
- Learn the nuances of all the different brands and models to properly test, troubleshoot and repair
- Know what (and what not) to lubricate and how much to use
- Know what and how much to tighten nuts and to verify the connection
- Understand that stretching springs will not improve function, but that springs will take a set and might need to be exercised to function properly
- Own and know how to use special tools that are occasionally needed
- Know when to recommend a backflow replacement versus a repair
- Know requirements of specific backflow applications such as Fire sprinkler systems (which have tamper switches and alarms).



# Backflow assembly testing is easy, but the tester is also

## a Sanitarian and a Janitor...

- Working with drinking water – practices need keep the water clean and safe
- Use clean tools and materials
- Keep workspace including vehicle clean and safe
- Flush out the line before and after the installation to remove debris and impurities
- Trim vegetation and clean up other items that affect safety and performance
- Where possible, mop up any spilled water and clean up to leave the site better than when they arrived



# Backflow assembly testing is easy, but the tester is also



## a Business Professional...

- Be proud of their certification and use it in their business marketing
- Stay current with recertification and seek out continuing education opportunities
- Network with other professional testers to build a problem solving support group
- Use technology to run their business – communications, billing and marketing
- Protect clients by keeping them in compliance and warning them of any non-compliance issues that could affect their liability with the water purveyor
- Respond quickly to client emergencies
- Work with water purveyors to help them problem solve difficult installations



# our contacts

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thank you