

Committee Request for Board Action: Assist with recruiting new committee leaders

There were 50 attendees representing about 20 member agencies, including two guest speakers. About half of attendees were BACWA Collection Systems Committee members.

Committee Accomplishments, 2022-2025. [Link to Slides](#). The co-chairs summarized the last few years of committee events and discussion topics, and shared that they are ready to pass the baton to new leadership. Volunteers needed!

Lessons Learned from a 24-Inch Force Main Inspection

[Link to Presentation Slides](#)

Black & Veatch's Chandler Carpenter and Clinton McAdams shared insights from a condition assessment of a 24-inch sanitary sewer force main in Phoenix. The assessment was conducted on the 20-year-old ductile iron force main because of a planned operational change, and to inform repair recommendations. Key points from the presentation included:

- **Condition Assessment Technology.** The condition assessment was completed with a PICA See Snake, which is propelled by the flow in the pipe (target velocity = 1 ft/s). The tool uses remote field electromagnetics to detect pitting and other defects in the pipe wall. This tool works with any metallic pipe. The high resolution offered by this tool allowed the team to see that most of the defects were below the springline of the pipe, and that the defects were not correlated with locations with negative pressures or air pockets. The defects were likely associated with internal corrosion caused by solids accumulation.

The project team recommended changing pump station operations so that the force main flow would have an elevated velocity (>6 ft/s) once per day to flush out solids. The team also recommended a new air valve to prevent negative pressures.
- **Logistics and Schedule.** The tool is completely autonomous, but cannot travel through obstructions such as plug valves, so the condition assessment team installed launch piping and a temporary "safely catch" tool to launch and retrieve the instrument. Installation of the launch ports and progressive pigging that was conducted before the condition assessment took several weeks and was the main driver for the schedule; by comparison, the PICA tool was only planned to be in the pipeline for about one day. Unfortunately, during the inspection, the PICA tool became snagged at one of the pipe bends, and a section of pipe had to be excavated to retrieve the tool.
- **Force Main Condition Assessment Options.** Agencies with force mains need to keep tabs on this condition of this critical asset, but that can involve different tasks at each agency. It can involve keeping track of operational data, corrosion control equipment, and CCTV before moving to more sophisticated technology such as an electromagnetic inspection. Incorporating permanent launch ports for future force main inspections is also helpful and becoming increasingly common as force mains are rehabilitated.