LOW FREQUENCY – HIGH CONSEQUENCE
SEWER LATERAL CROSS BORES
BOB CARPENTER - PIPELINE INTEGRITY RISK & THREAT MANAGER
Sewer Lateral Cross Bore - Overview

Low Frequency Event
High Consequence Potential

Contributing Factors:
• Trenchless Gas line Installation
• Plastic (polyethylene) Pipe
• Sewer Lateral present
  • Shallower than expected
  • Difficult to locate
Sewer Lateral Conflict – Example
Industry has been installing plastic pipe by directional drilling or boring since the early 1970’s

Historical installation practices for sewer line placement (6ft – 8ft) vs. gas lines (3ft – 4ft) provided sufficient separation

Sewer Lateral (SL) material is typically clay or plastic with no means of locating (no tracer wire or locating balls)

Municipalities don’t own SL’s, property owners do, therefore no responsible resource to locate and mark them
SCG did repair SL conflicts occasionally, no incidents, very low volume

SCG began developing SLIP after risk significance was recognized first by a SWG study of SL conflicts on their system

Further recognition of this LFHC risk was supported by industry members as well as many state and federal pipeline safety representatives

National incidents highlight level of severity of consequences
SLIP Approach

• Two-Stage Approach
  – Identify Conflicts
    • Determine conflict attributes (industry/in-house experience)
      – Install date, pipe material, install method, SL presence
    • Data research to identify locations
      – Construction packages, maps, GIS, leakage data, sewer location data
      – Document all findings and decisions
  – Mitigate Conflicts
    • Site visits for video inspection inside laterals, or excavate
    • Repair as needed
    • Document all activities and findings
Camera Launching

Two Cameras

1) Straight ahead for sewer main
2) 90 degree lateral camera
Inspection Control and Video Recording
Additional Operations

Camera in customer’s clean-out

Locating sewer lateral