Challenges to Underground Utilities in Floodplain and Flood Prone Areas
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- Utility Right of Way have multiple stream crossings
- Installed Prior to Urbanization
- Farmland and Open space
- Crossed small streams
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Increased Storm Events:
- Hurricanes
- Superstorms
- Flashfloods
- Rain Events
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• Leads to this:
Challenges to Underground Utilities in Floodplain and Flood Prone Areas

- Emergency Repair
  - Letter of Authorization
  - Expedited Permit
  - 1 month start to finish

- Routine Upgrades
  - Capital Improvement Project
  - Design/Permits to Construction 6 to 9 Months
Challenges to Underground Utilities in Floodplain and Flood Prone Areas

Permits/Approvals:

- MD Forest Conservation Act
- County/City Construction Permits
- State Historic Preservation Office
- Threatened and Endangered Species Clearance
- Section 404 Wetlands and Waterways
- Adjacent Property Owners

Stake Holders:
Challenges to Underground Utilities in Floodplain and Flood Prone Areas

- **Time-frames**
  - Construction/ Off-Peak times
    - April – October (Gas)
    - October – May (Electric)
  - **Stream Closures**
    - Use I: March to June 15
    - Use II: June 1 to September 30, December 16 to March 14
    - Use III: October to April 30
    - Use IV: March to May 31
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Use I Stream Construction Schedule

Use I and IP Closure (Recreation and Protection of Aquatic Life)
March 1 - June 15

Use II Stream Construction Schedule

Use II Closure (Shell fish Harvesting)
June 1 – September 15
December 16 to March 14
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Things to Remember:

- Monitor your systems
- Know which permits/approvals needed
- Know your construction schedule
- Know stream closure dates