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### **East Force Main Leak Timeline**

- West force main was in operation
- Wednesday (11/2/22) -Switched from West to East force main
- Friday (11/4/22) Leak reported, standby crew responded and approx. 10,000 gallons spilled
  - Standby crew switched back to West force main, leak stopped
- Currently operating with West force main



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# **Lido Force Main CCTV Inspection**

Piping below the force main was removed to provide access for CCTV on 11/16/2022





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## **Lido Force Main CCTV**

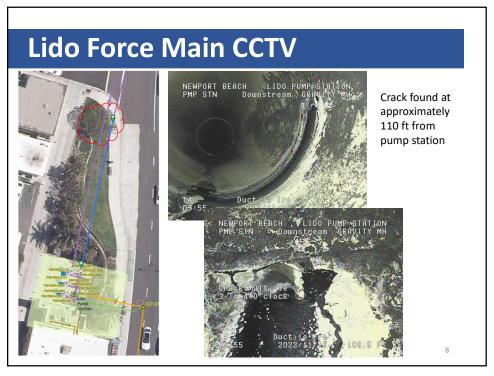


- Initial CCTV was performed on 11/16/22 to locate break
- Approximately 142 feet of East force main was inspected
- Inspection stops at a junction joint
- Additional 416 feet of CCTV was performed from where pipe was excavated and removed









# **Excavation and Repairs**

- Opened a project to repair the pipe
- Setup Traffic Control
- Excavate to further assess the external pipe condition







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# Excavation and Repairs Viviante Internal Control of the Control o

## **Excavation and Repairs**



- Damaged pipe was cutout and replaced
- Couplings were concrete encased, pipe exterior wax-taped
- · Force main was pressure tested
- · Excavation site being restored

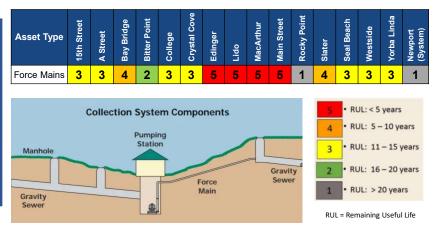




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### **Asset Management - Force Main Condition**

Current force main remaining useful life scores are theoretical and adjusted per condition assessment(s)



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### **Asset Management - Force Main Reliability**

### **Key Issue:**

Force mains are often difficult to inspect & have a high consequence of failure (COF)

### **Asset Management Actions:**

- Develop plan to inspect all force
- Prioritize inspections (Risk &
- Evaluate frequency of inspection

### Path Forward:

- **Use existing Condition** Assessment Contracts and internal resources
- Planning Study for locations that require additional support



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# Questions