Frontera Force Mains: Essential Wastewater Artery

Background

- These Dual Force Mains collect all wastewater from West El Paso and deliver about 10 MGD of flows 3.5 miles to the Hickerson Plant
- Unprecedented 100% redundant pipeline and pumping system; two pipelines installed; each could carry 100% of the flow
- Replacement of segments of this force main were budgeted to begin in FY20/21
- In March 2020, a rupture occurred in the line, triggering an emergency declaration and expedited construction on the replacement line
- PSB awarded an emergency repairs contract to Oscar Renda Contracting and Jacobs Engineering Group
- New pipeline construction was 60% complete when the lines experienced multiple breaks in August of this year.
Frontera Force Mains - Pipe Break Summary

August 12
Monsoonal Event

August 13
(Doniphan Park)
South Pipe Break
North Pipe Leak

August 13 (Best Western)
North Pipe Break

August 14 (Best Western)
North Pipe Leak

August 16 (Hickerson WRF)
Insufficient flow to keep Biological activity

August 18 (Best Western)
North Pipe Repaired
North Pipe Valve Stuck (Bob-O’s)

August 21 (Best Western)
North Pipe Valve Repaired
North Pipe in operation

August 23 (Constitution Parking Lot)
North Pipe Break

August 25 (Constitution Storage)
North Pipe Break

August 27 (Frontera Lift Station)
South Pipe Break

Sept 1
(Constitution Parking Lot)
South Pipe Break

Sept 3
(Doniphan Park)
South Pipe Repaired
Frontera Force Mains – Both lines experience multiple breaks
Plan of Action

- Abandon repairs to both Frontera lines, too many breaks and highly unreliable
- Accelerate new line replacement project to complete ahead of schedule
- Implement mitigation plan to divert wastewater from river to plants for treatment
Wastewater Discharge to River

- Wastewater conveyed via 96” stormwater pipe
- Discharge into river at outfall located along Doniphan and Hillside
- Wastewater/groundwater discharge flow is approximately 10 MGD
- Flows are diluted downstream with other sources (EPE power plant, Montoya Drain, Haskell Plant treated water, and other return flows)
- Discharge will continue until new pipeline is complete, which is estimated for late November/early December.
Mitigation Plan

- River bypass with pump and treat mitigation
  - Phase 1 - Diversion at river, to treat at Bustamante Plant
  - Phase 2 - Diversion from American Canal, to treat at Haskell Plant
  - Phase 3 - Diversion at Keystone Outfall, to treat at Hickerson Facility
- Frequent water quality sampling and testing of water along the river
- Weekly video documentation of the river using drone technology
- Hired environmental engineering consultant experts to begin environmental assessment
- Additional coordination with Ysleta Del Sur Pueblo
Regulatory Considerations

- EPWater holds a Texas Pollution Discharge Elimination Permit from the Texas Commission on Environmental Quality (TCEQ) that prescribes the quality of the water that can be discharged to the Rio Grande.
- As required, we immediately notified TCEQ when we began releasing untreated wastewater into the river.
- TCEQ inspector has been onsite and has provided guidance; we have maintained frequent communication with the agency.
- We have followed TCEQ requirements for public notifications.
Business and Neighborhood Outreach

- During the initial incident, the backup of the Frontera line caused wastewater to emerge from manholes and even into homes.
- EPWater had staff onsite within hours to work with neighbors, arrange for cleaning and disinfection, provide car wash passes.
- Doniphan Park businesses have been frustrated with odors; staff has visited and provided car wash passes and regular updates.
- Two hotels have been significantly impacted due to access issues, construction disruptions and odors.
- New business assistance program is about to be rolled out to help compensate businesses directly impacted by access issues, construction, wastewater on property, etc.
Public and Stakeholder Outreach

- 7 news releases, multiple social media posts to inform the public
- Conducted dozens of media interviews
- John’s *On the Water Front* newsletter provided an update on the topic
- Releases shared with PSB, OEM, IBWC, Irrigation District, City Council members, County Judge, others
Replacement of Frontera Force Mains (1.2 miles)

81% complete
Our commitment

- Acceleration of replacement line
- Execute mitigation of impacts
- Transparency with public and stakeholders
- Working with neighbors