



Frontera Force Main Update

Frontera Force Mains: Essential Wastewater Artery

Background

- These Dual Force Mains collect all wastewater from West El Paso and deliver 10 MGD of flows 3.5 miles to the Hickerson Plant
- Replacement of segments of this force main were budgeted to begin FY20/21 and continue through future fiscal years
- March 2, 2020 a rupture occurred discharging thousands of gallons of wastewater onto the area of Sunland Park between I-10 and Doniphan, which triggered the emergency declaration
- PSB awarded an emergency repairs contract to Oscar Renda Contracting and Jacobs Engineering Group during the March 11, 2020 board meeting
- New pipeline construction is 60% complete

Frontera Force Mains: Redundant and Reliable Design

Background

- Unprecedented 100% redundant pipeline and pumping system
- Two pipelines installed; each can carry 100% of the flow
- Two pumps needed for 100% of the flow, four pumps installed
- Redundant active and passive cathodic protection system with testing stations (ground anode beds, rectifiers, electrical insulators)
- Hired contractor to perform annual testing and ensure operation of cathodic protection system

Frontera Force Mains

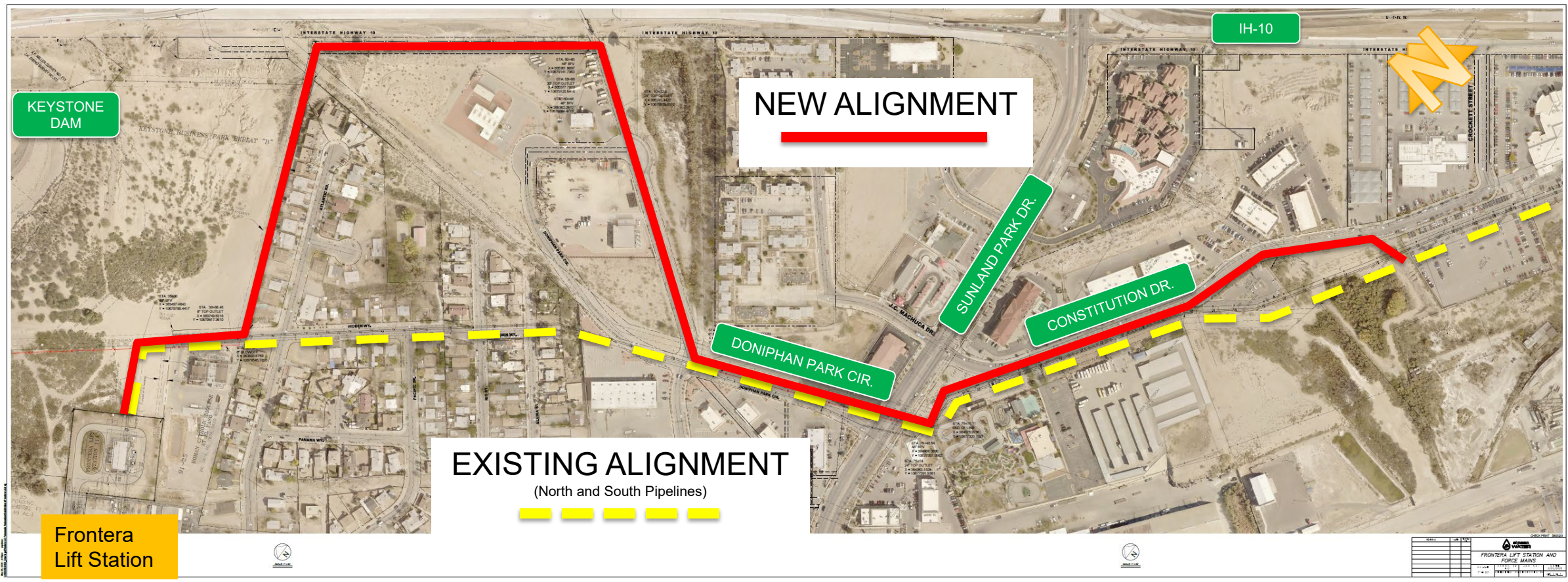


Frontera Force Mains



Emergency Repairs to Frontera Force Mains

Replace 1.2 miles of 36" Force Main

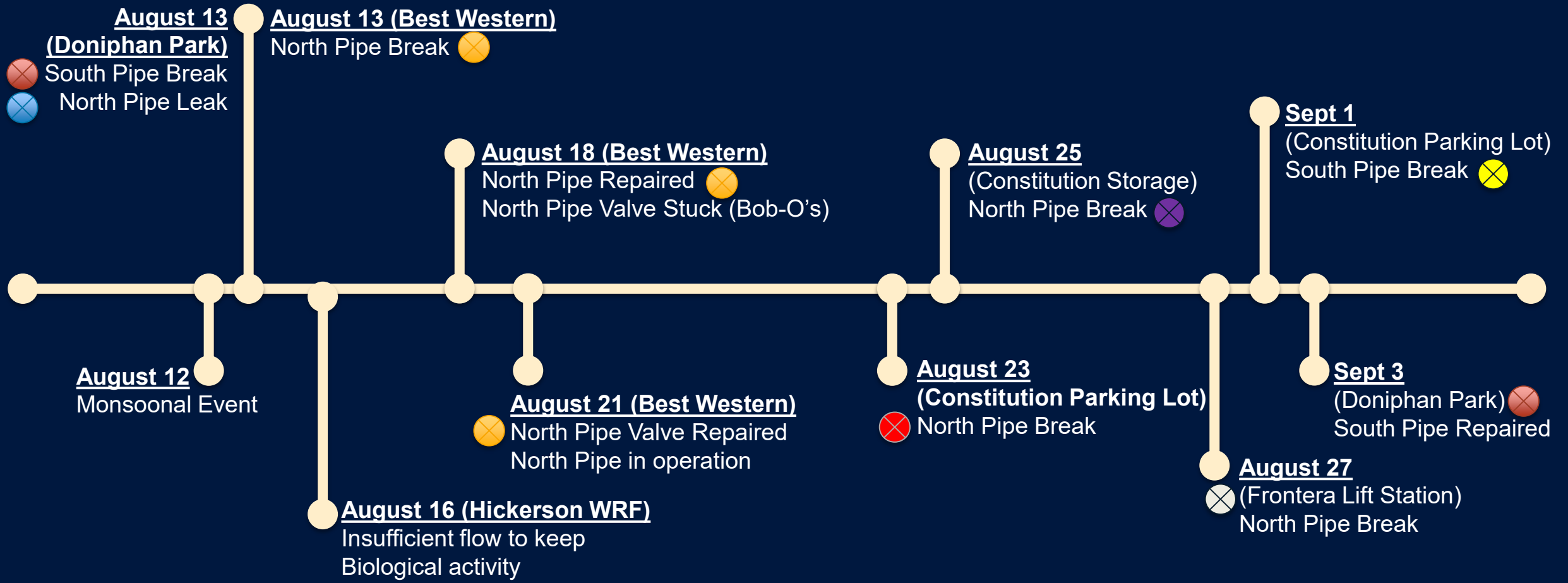


Frontera Force Mains: Irregular Soil Corrosivity

Background

- Soil corrosivity measurements along pipeline alignment rated from moderately corrosive to very corrosive.
- Long segments rated soils as extremely corrosive
- Pipeline segments installed in ROW, experienced corrosion attacks from nearby utilities

Fraser Force Mains Pipe Break Summary

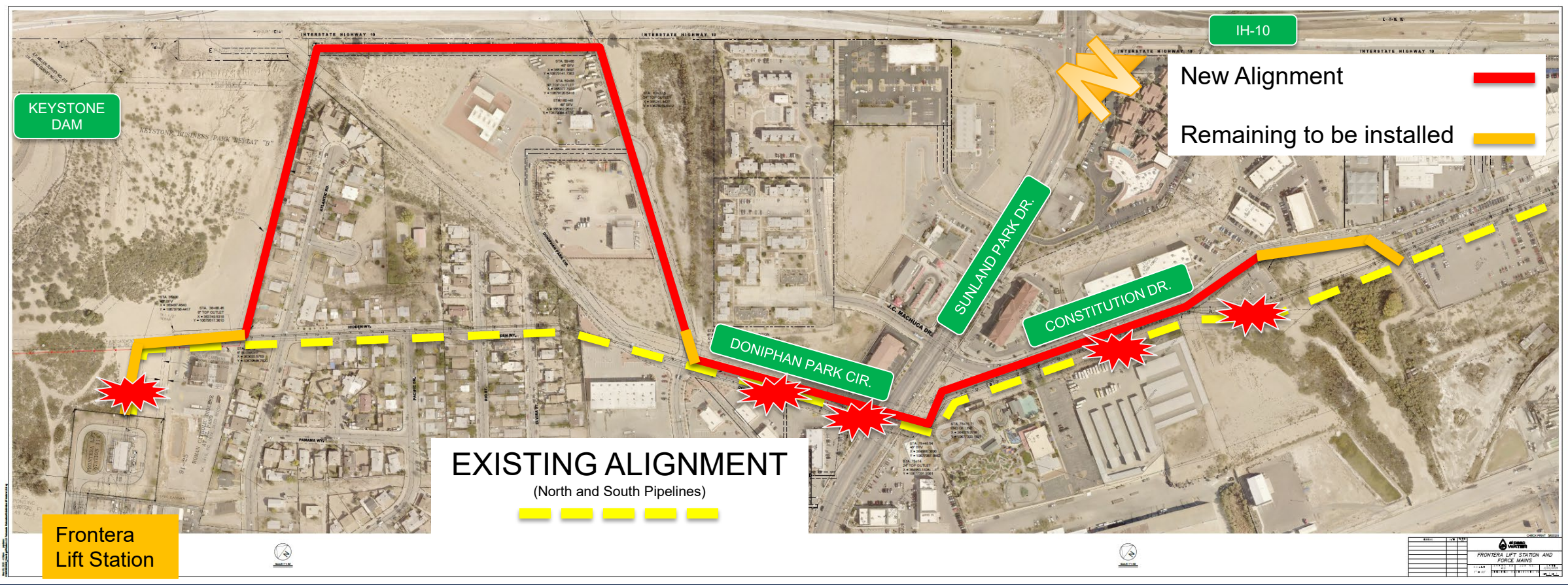


Frontera Force Mains



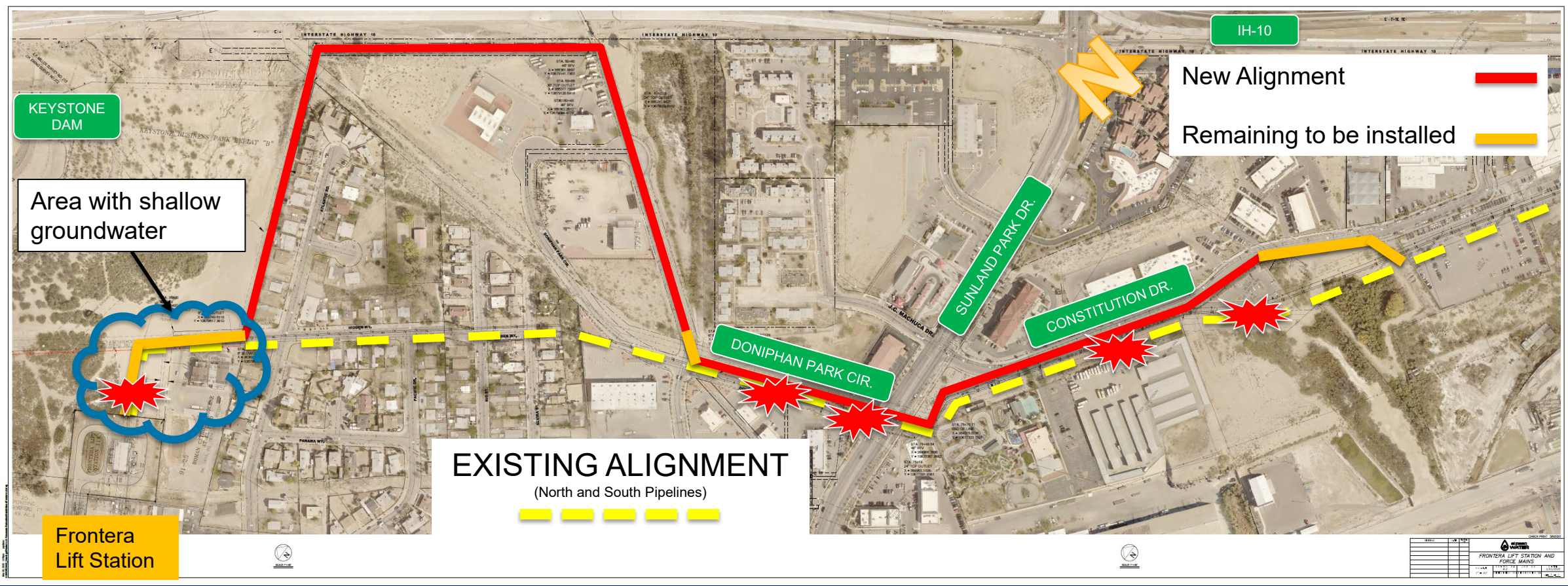
Emergency Repairs to Frontera Force Mains

Replace 1.2 miles of 36" Force Main



Emergency Repairs to Frontera Force Mains

Replace 1.2 miles of 36" Force Main



Pipe Break Summary

South Pipe - REPAIRED	North Pipe - REPAIRED
Doniphan Park Circle	Best Western
South Pipe – NOT REPAIRED	North Pipe – NOT REPAIRED
Constitution Parking Lot <i>Discharge to stormwater system/river</i>	Doniphan Park Circle <i>Discharge to adjacent pond</i>
	Constitution Parking Lot <i>Discharge to stormwater system/river</i>
	Constitution Storage Facility <i>Discharge to stormwater system/river</i>
	Frontera Lift Station <i>Discharge to Keystone Dam Outfall/river</i>

Plan of Action

Continue repair of the south pipe; regain pipeline operation

- Repair south pipe at constitution parking lot to shift flow to the south pipe
- Abandon north line in place, too many breaks, highly unreliable
- Stop all discharges in the right-of-way

Continue installation of new pipeline

- Pipeline is 60% complete
- By-pass Frontera Lift Station flow into river to allow for connection of the new pipeline to the lift station
- Dewater groundwater table to allow for tie-in connections of new pipeline (15-feet deep)

Spill Mitigation Plan

Wastewater Discharge into River

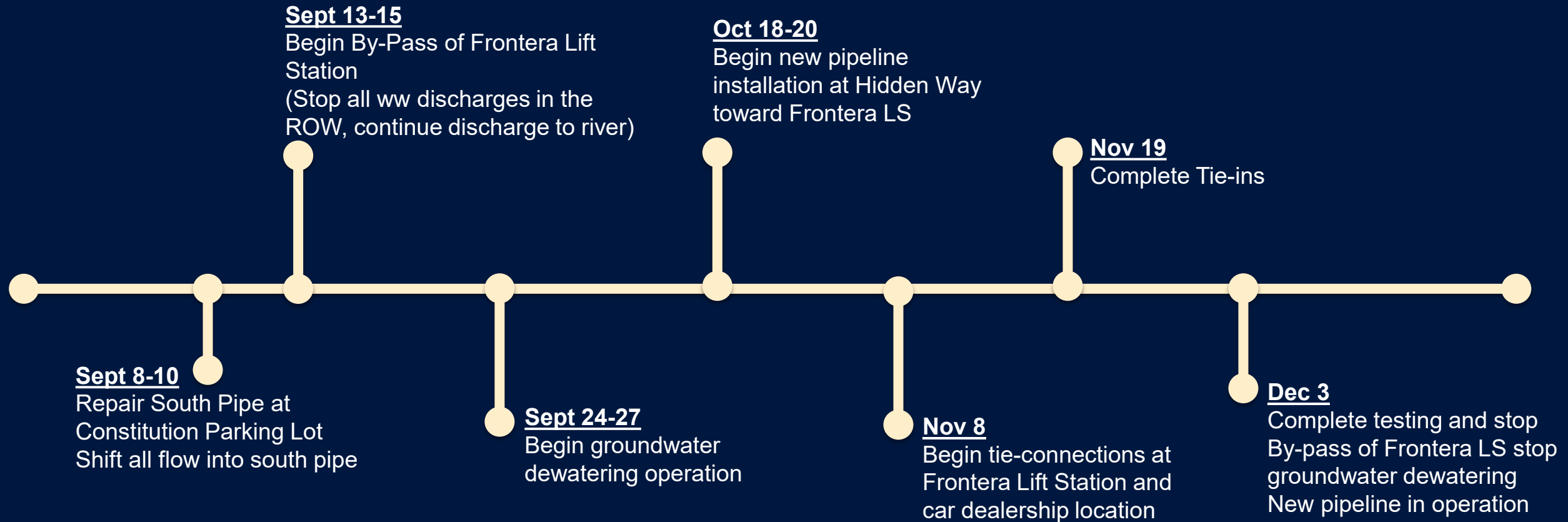
- Lift station by-pass into 96" stormwater pipe.
- Discharge into river at outfall located along Doniphan and Hillside.
- Wastewater/groundwater discharge flow is approximately 6.5 MGD
- Baseflow in river is 12.8 MGD (from Montoya Drain, Haskell WWTP treated water, and other return flows)
- Discharge will continue until new pipeline is complete

Mitigation Plan

- Coordination with TCEQ, IBWC, Border Patrol, EPCWID#1
- Capture 100% wastewater flow from river and convey to Bustamante WWTP for treatment.

Frontera Force Main Update

Plan of Action Milestones

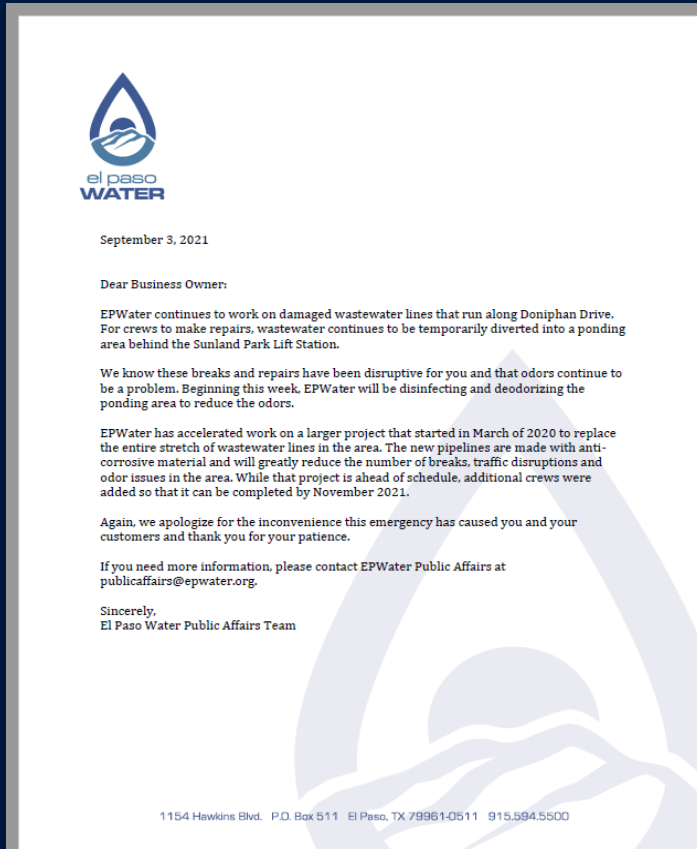


Regulatory Considerations

- Texas Commission on Environmental Quality is our environmental regulatory oversight agency
- EPWater holds a Texas Pollution Discharge Elimination Permit 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; we have maintained frequent communication with the agency
- We have followed TCEQ requirements for public notifications
- TCEQ has observed adverse ecosystem impacts from the release to the Rio Grande



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 them, provided car wash passes and regular updates
- Two hotels have been significantly impacted due to access issues, construction disruptions and odors

Public and Stakeholder Outreach

- 6 news releases, multiple social media posts to inform the public, created a web page with updates and information
- Conducted 15 media interviews (TV, radio, online, print) resulting in more than 60 media mentions
- 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



Impacts to Reclamation Customers

- With reduced flows to the Hickerson Reclamation facility, it has affected the ability to supply customers with reclaimed water
- EPWater is providing potable water to customers on an interim basis
 - Coronado Country Club
 - Schools
 - Parks
 - Industry

Our commitment

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