



WASTEWATER CONSENT DECREE UPDATE

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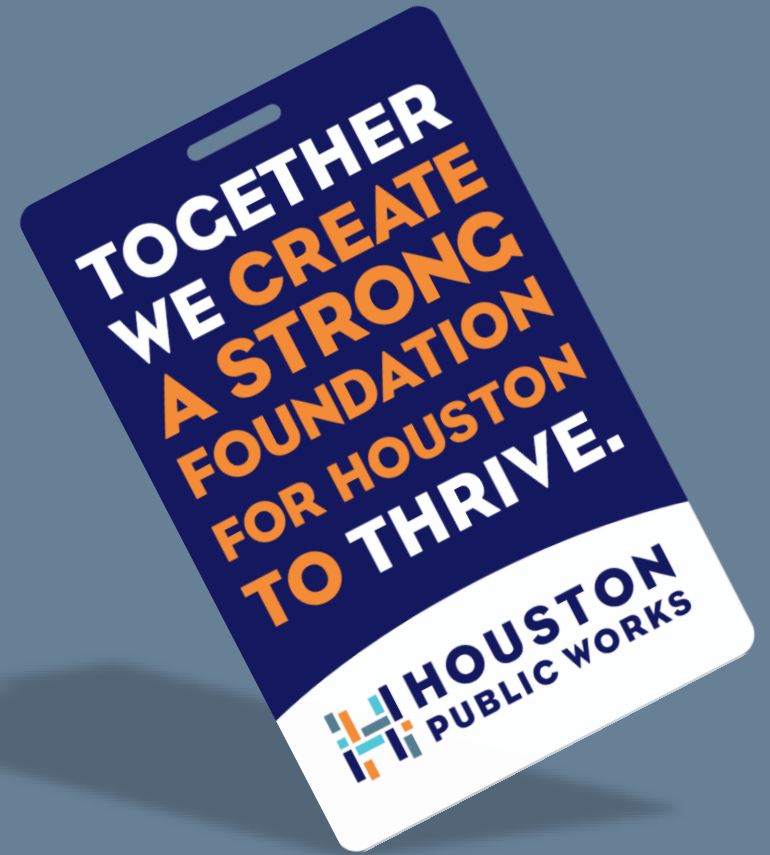


PURPOSE

together we create a strong foundation
for Houston to thrive

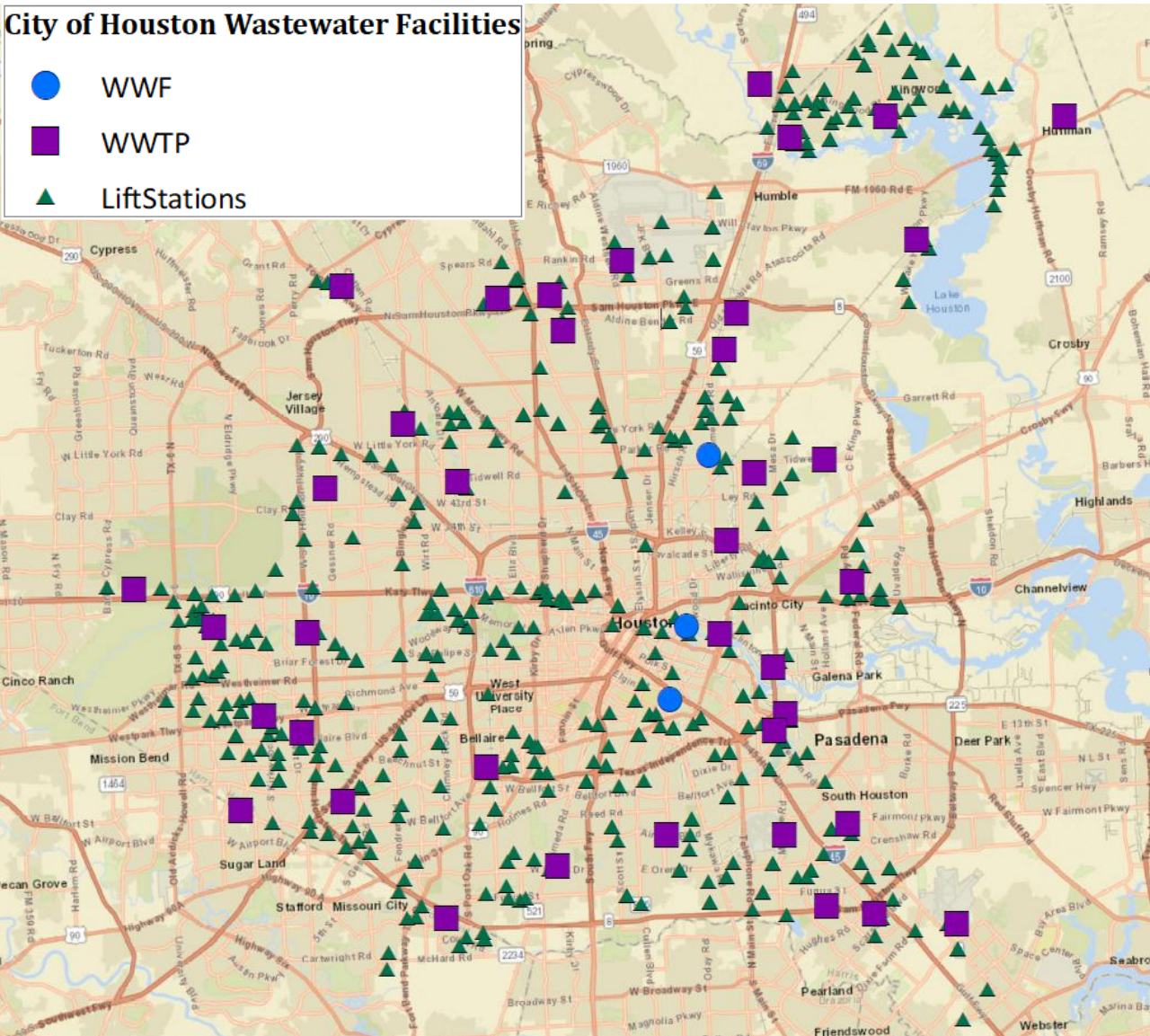
5 TO THRIVE VALUES

integrity | teamwork | ownership | communication | respect



City of Houston Wastewater Facilities

- WWF
- WWTP
- ▲ LiftStations



HOUSTON'S WASTEWATER INFRASTRUCTURE

39 WWTPs (564 MGD permit)

3 wet weather facilities

381 lift stations

5867 miles | gravity sewer

302 miles | force main

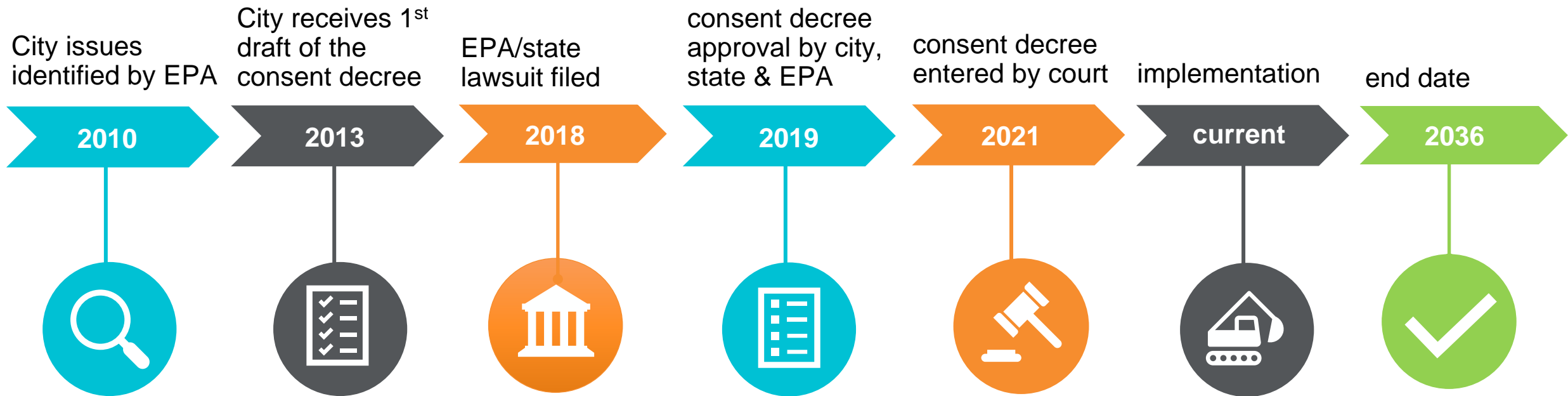
129,603 manholes

590 sq. miles

BACKGROUND

- 30-year nationwide EPA Consent Decree initiative to reduce sanitary sewer overflows.
- \$2.2 billion invested through Greater Houston Wastewater program completed in 1997.
- \$755 million invested through Agreed Order with Texas Commission on Environmental Quality completed in 2016.
- City & EPA began discussing wastewater issues in 2010; Consent Decree negotiations began in 2013.
- EPA & Texas filed suit against City in 2018.
- Houston-unique consent decree collaboratively resolves lawsuit incorporating City-developed program to improve sewer system performance.
- Work included in consent decree is an investment that will improve Houston's sanitary sewer system for future generations.

ACTIVITY TIMELINE

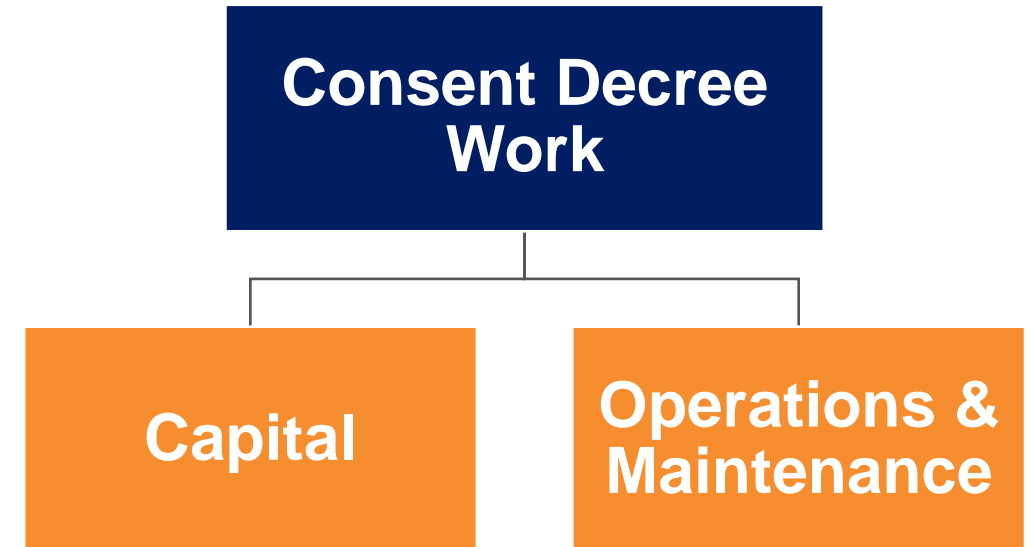


ON THE RADAR

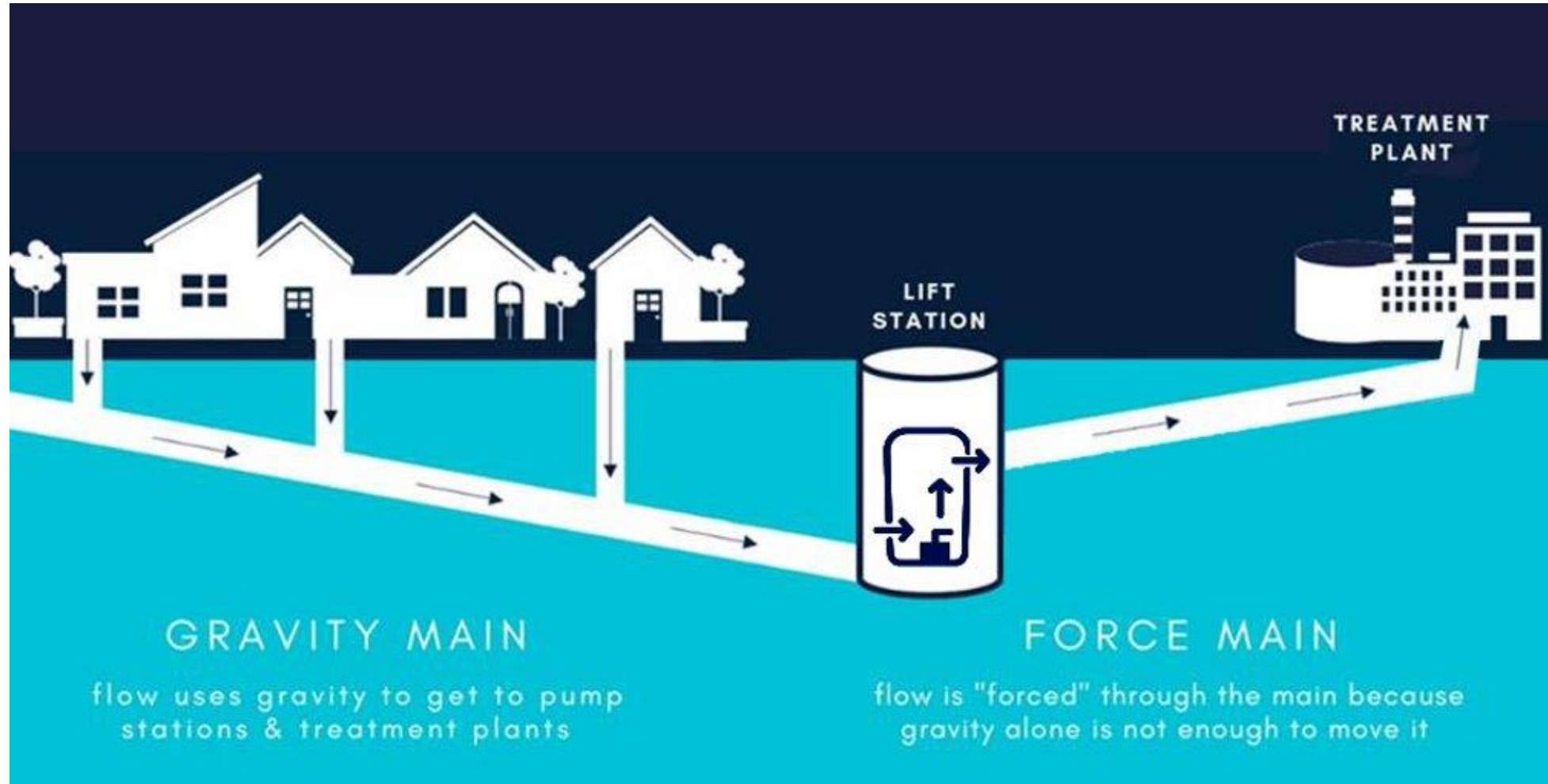
- COVID-19.
- Workforce challenges.
- Material shortages.
- Global supply chain disruptions.
- Global unrest.
- Oil/gas/energy.

MAJOR COMPONENTS OF CONSENT DECREE

- early action projects
- capacity assessment & remediation
- condition assessment & remediation
- capacity, management, operations & maintenance (CMOM)
- WWTP & lift station performance evaluations
- wet weather facilities evaluation & remedy
- advanced sewer monitoring
- \$4.4 million penalty paid (2021) to resolve prior non-compliance
- stipulated penalties



THE WASTEWATER SYSTEM



INFRASTRUCTURE IMPROVEMENT IMPLEMENTATION PLAN

WHAT?

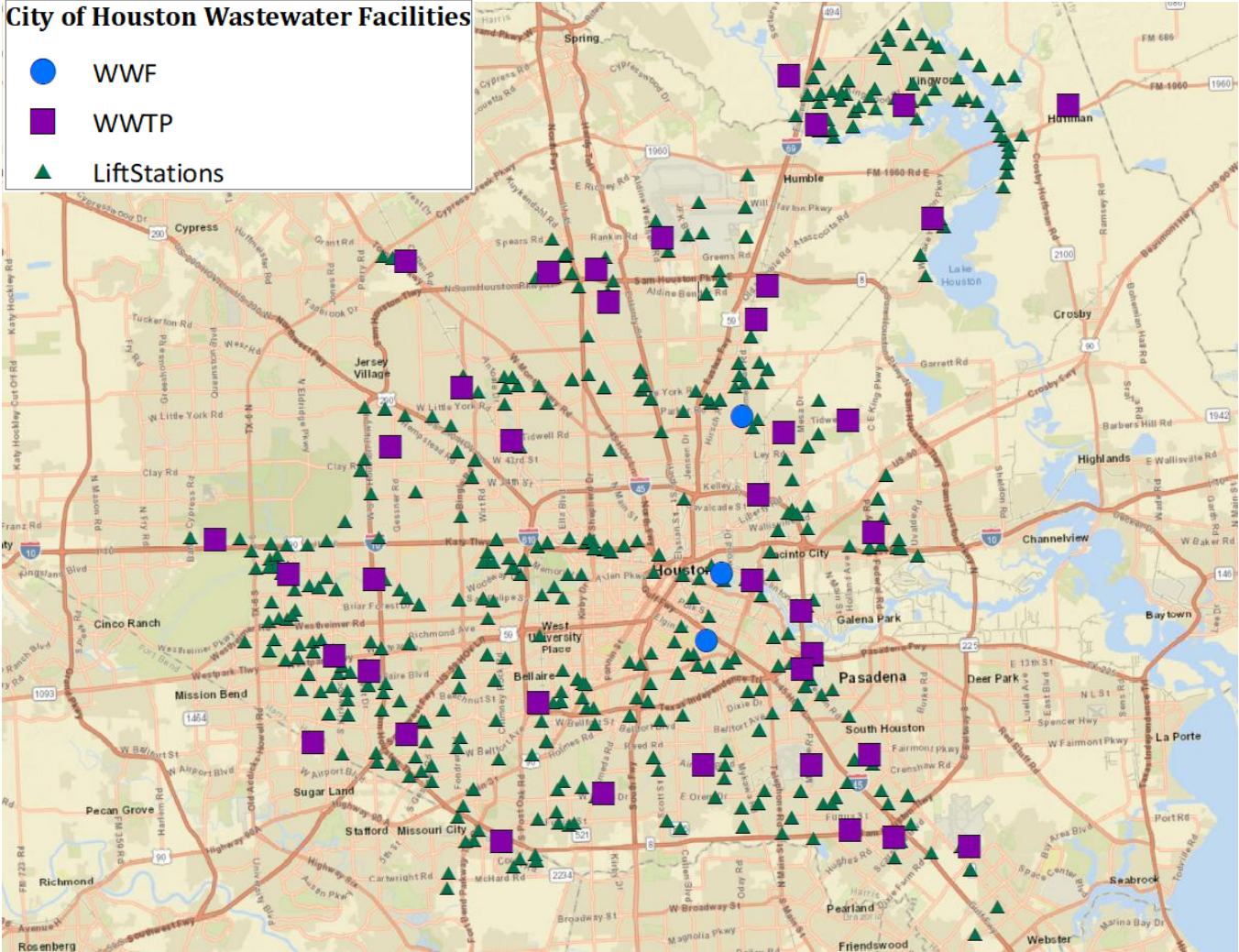
assets/facilities

gravity sewer mains & manholes
(5867 mi. mains 129,603 manholes)

force mains
(303 mi.)

lift stations
(381)

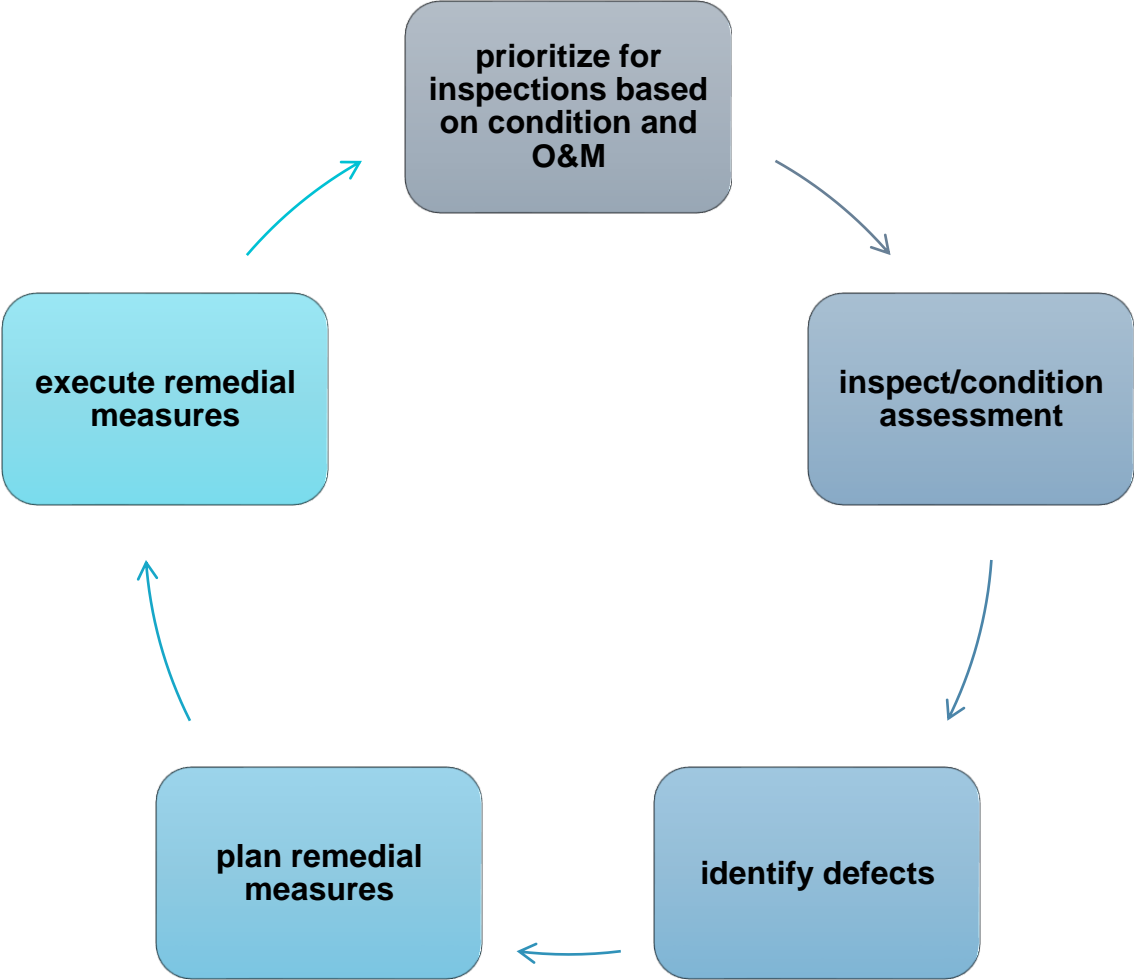
wastewater treatment plants
(39)



INFRASTRUCTURE IMPROVEMENT IMPLEMENTATION PLAN

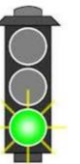
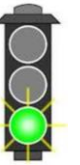
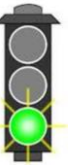
HOW?

methodology for improvements



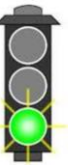
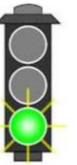
PROGRESS

CD COMPONENT	KEY SCOPE OF WORK	PROGRESS
Early Action Projects	<ul style="list-style-type: none"> - Lift station renewal and replacement - Force main renewal and replacement - Consolidation projects - Wastewater treatment plants improvements 	39% of projects complete (projects scheduled through 2030)
Capacity Assessment & Remediation	<ul style="list-style-type: none"> - 9 areas- repeat SSOs during rainfall - Plan to fix – due by March 2023 - Complete work in 10 to 15 yrs. - New areas being added when repeat SSOs occur during rainfall 	Capacity Remedial Measures Plans are being prepared for submittal in 2023
Condition Assessment & Remediation	<ul style="list-style-type: none"> - Inspect and assess condition for all gravity sewer mains, manholes, force mains and lift station in 10 yrs. - Remediation of aged assets & facilities. 	Inspection progress – 498 mi. of gravity sewer mains; 4,751 manholes ; 60 mi. of force mains



PROGRESS (CONTINUED)

CD COMPONENT	KEY SCOPE OF WORK	PROGRESS
Capacity, Management, Operations & Maintenance (CMOM)	<ul style="list-style-type: none"> - Clean high SSO areas in first 2 years (1500 mi) - Clean all gravity sewers every 10 years (5867 mi) - Implement preventive sewer cleaning program for repeat SSO areas - Continue fats, oil & grease (FOG) education program 	<ul style="list-style-type: none"> - 498 mi. - 838 mi.
Wet Weather Facilities	<ul style="list-style-type: none"> - Pilot studies on wastewater treatment technology for Northside and Scott St WWFs to use these facilities to treat wastewater during heavy rainfall events - Eliminated discharge from Bretshire WWF per CD requirement 	<p>Preparing to submit pilot study requests for Scott & Northside WWFs.</p> <p>Bretshire WWF-complete.</p>
Advanced Sewer System Monitoring	<ul style="list-style-type: none"> - Install 3,000 new “smart” manhole monitors – alerts response teams before an SSO occurs 	<ul style="list-style-type: none"> - 84 installed today - 600 by end of FY22 - 3000 by FY26



PROGRESS (CONTINUED)

CD COMPONENT	KEY SCOPE OF WORK	PROGRESS
Stip. Penalties (SSOs and WWTP Effluent Exceedances)	<ul style="list-style-type: none"> - Expected to occur while CD is implemented over 15 yrs. to improve system - Negotiated \$300 - \$5,000 per occurrence - Max Clean Water Act penalty \$56,461 	Q4 FY21 invoice - \$293,600 FY22 estimated- \$1.2 million
Other Stipulated Penalties	<ul style="list-style-type: none"> - Failure to timely complete/submit deliverables - \$500 to \$2,500 per day - Failure to implement compliance requirements - \$1,000 to \$4,500 per day 	\$0

- Payments are due within 60 days of demand by EPA/TCEQ
- First demand was received on March 4, 2022, for \$293,600
- Motion will be coming to Council for spending authorization for Q4 FY21 and all FY22 (March 30 agenda).
- Total amount ~\$1.5 million.

HIGHLIGHTS

- 20% reduction in SSOs
- 40% of Early Action Projects are complete
- 14 SSOs prevented using 84 smart manhole covers in the month of February 2022 alone
- Over 65 contracts and over 40 contractors/vendors actively working on CD projects.

thank you!



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