

# **EAST WATER PURIFICATION PLANT (EWPP) ENHANCEMENT PROJECT**

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**HOUSTON  
PUBLIC WORKS**

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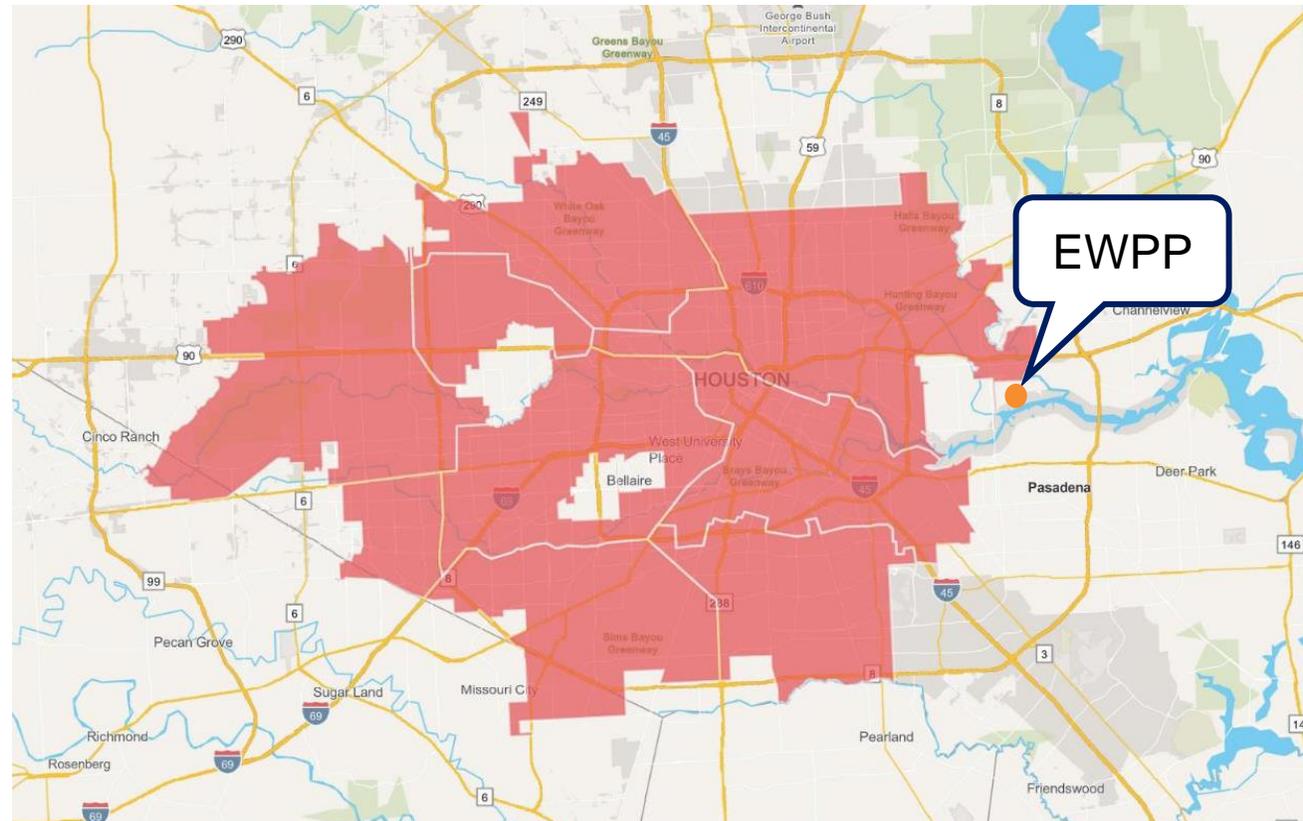


# EAST WATER PURIFICATION PLANT (EWPP)



# BACKBONE OF HOUSTON'S DRINKING WATER SYSTEM

Treated water from the EWPP supplies a majority of Houston's customers (service area shown in red).



# THE EWPP HAS SERVED HOUSTON FOR OVER 70 YEARS

## Plant 3 – 1980's vintage



## Plants 1 and 2 – 1950's vintage



# ASSETS NEED TO BE REPLACED

## Plant 3

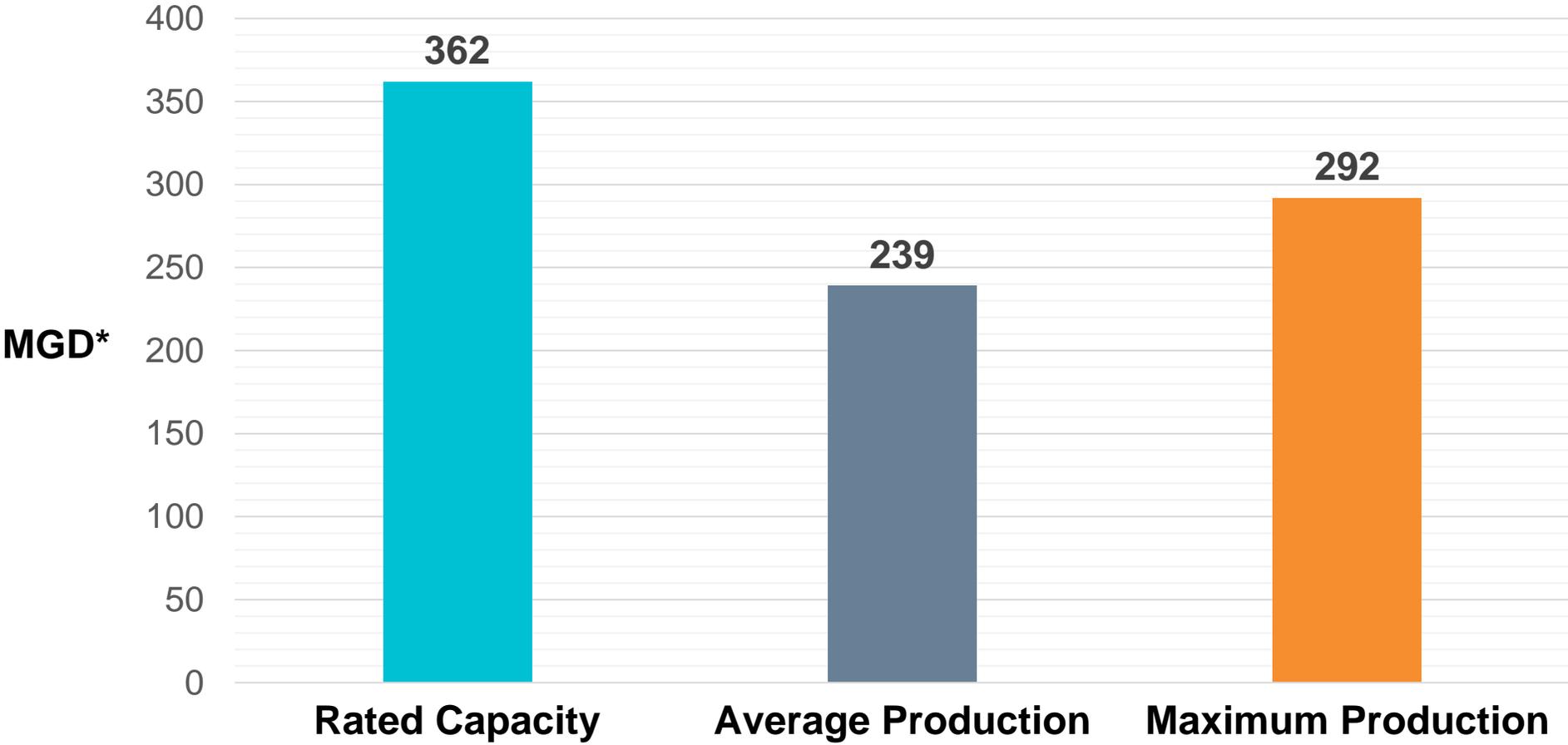
Estimated Service Life	Prioritization of Replacement	Percentage of Assets
1-2	Urgent	31%
3-5	Priority	17%
6-10	Short-Term	35%
11-20	Mid-Term	16%
20+	Long-Term	1%

## Plants 1 and 2

Estimated Service Life	Prioritization of Replacement	Percentage of Assets
1-2	Urgent	43%
3-5	Priority	12%
6-10	Short-Term	28%
11-20	Mid-Term	16%
20+	Long-Term	1%

Source: *Condition Assessment and Evaluation of EWPP Plants 1, 2 and 3*  
 WBS No. S-000101-0002-3 (AECOM 2021)

# PRODUCES LESS THAN RATED CAPACITY



\* Based on 2019 to 2024 data

# REACHING THE END OF LIFE



**Houston, Texas (KTRK)** - *The water treatment plant supplying up to 75 percent of Houston-area residents is failing, according to Greg Eyerly, the (former) head of Houston Water.*

Source: 2/17/25 News Story



# THREE ALTERNATIVES



**Alternative 1** – Upgrade and expand Plant 3 with same processes.



**Alternative 2** – Upgrade and expand Plant 3 with new processes.



**Alternative 3** – Expand facilities with new plant in monofil area.

# ALTERNATIVE 3 (NEW 360 MGD FACILITIES)

## Basis of Recommendation

1. Shortest schedule
2. Minimizes impacts to ongoing operations of Plants 1, 2, and 3
3. New processes to improve treatment performance
4. Improves reliability and resiliency of the EWPP
5. Extends service life of EWPP by decades

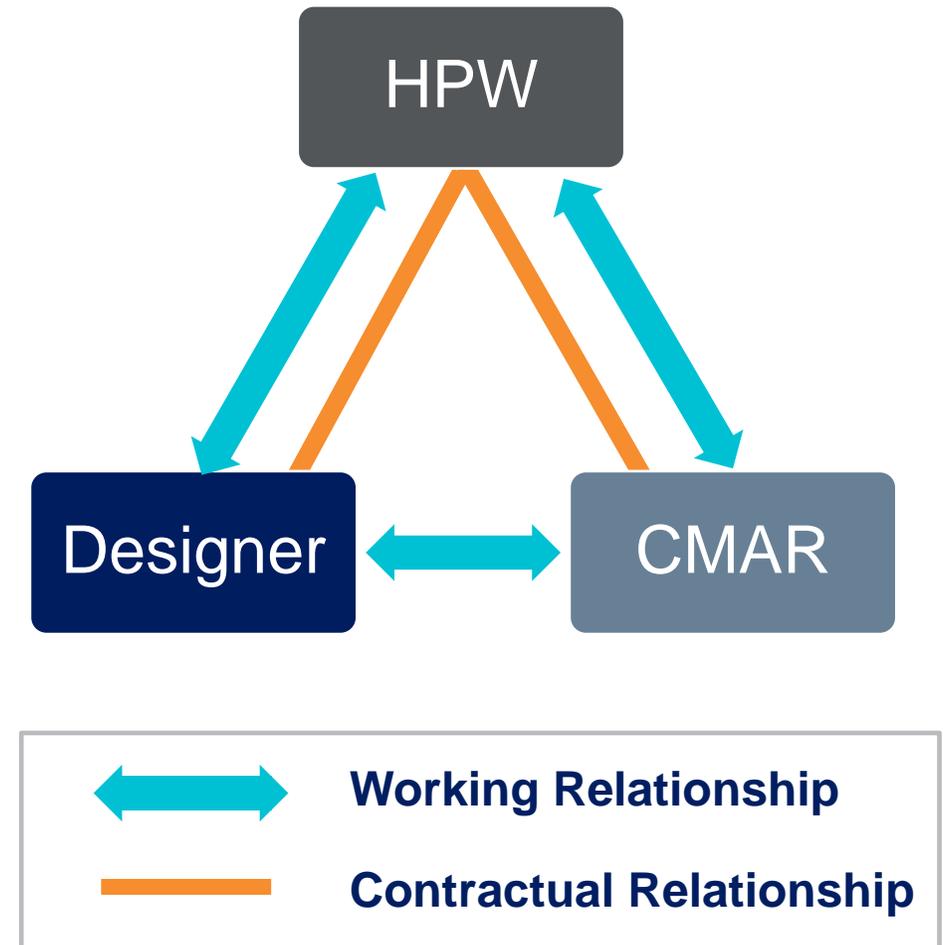


Proposed treatment facilities located in monofil area  
Looking east

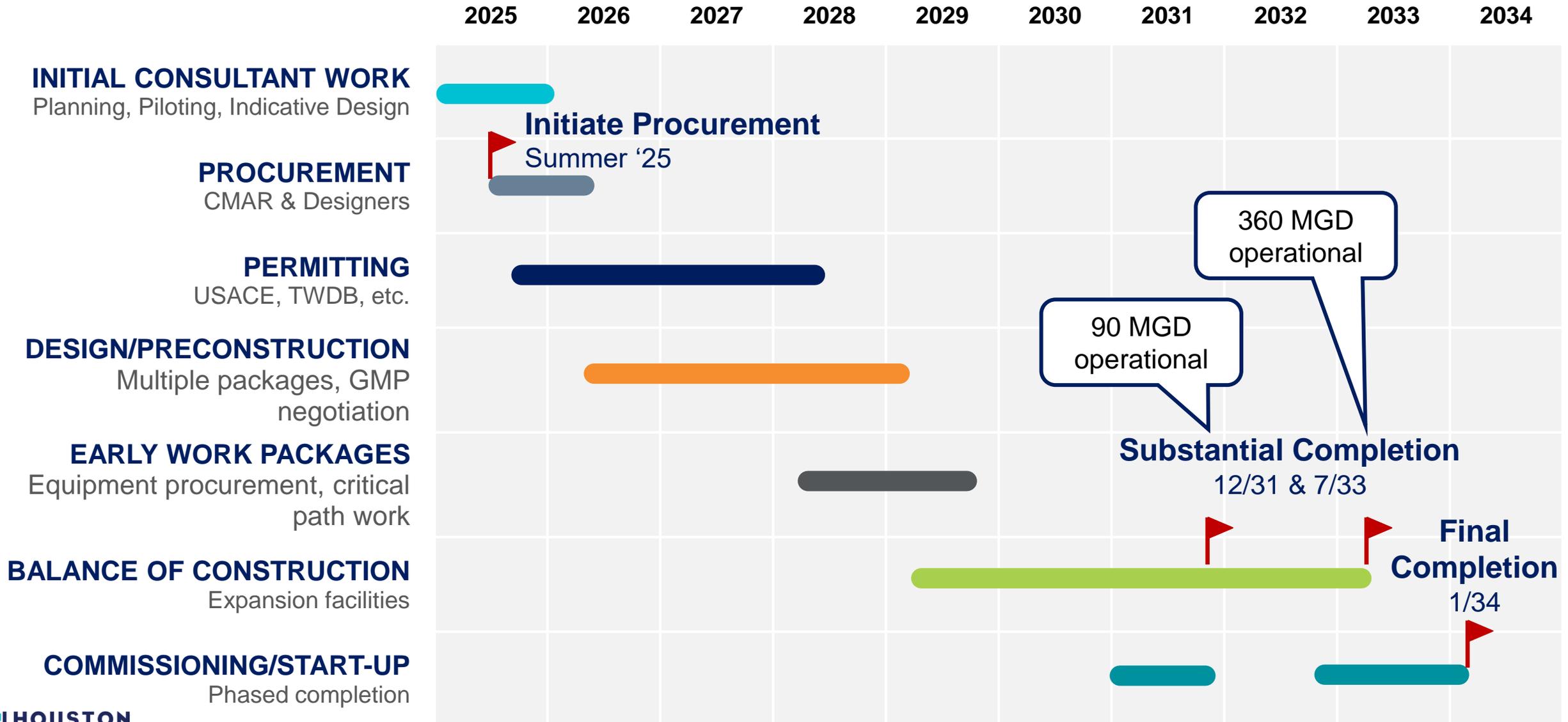
# CONSTRUCTION MANAGER AT RISK (CMAR)

## Basis of Recommendation

1. Earlier delivery
2. Construction input from CMAR during design
3. Earlier cost certainty
4. Market compatibility
5. Possibility of wrapping ongoing CIP projects under CMAR umbrella
6. More subcontracting opportunities



# TARGETING COMPLETION BY 2034

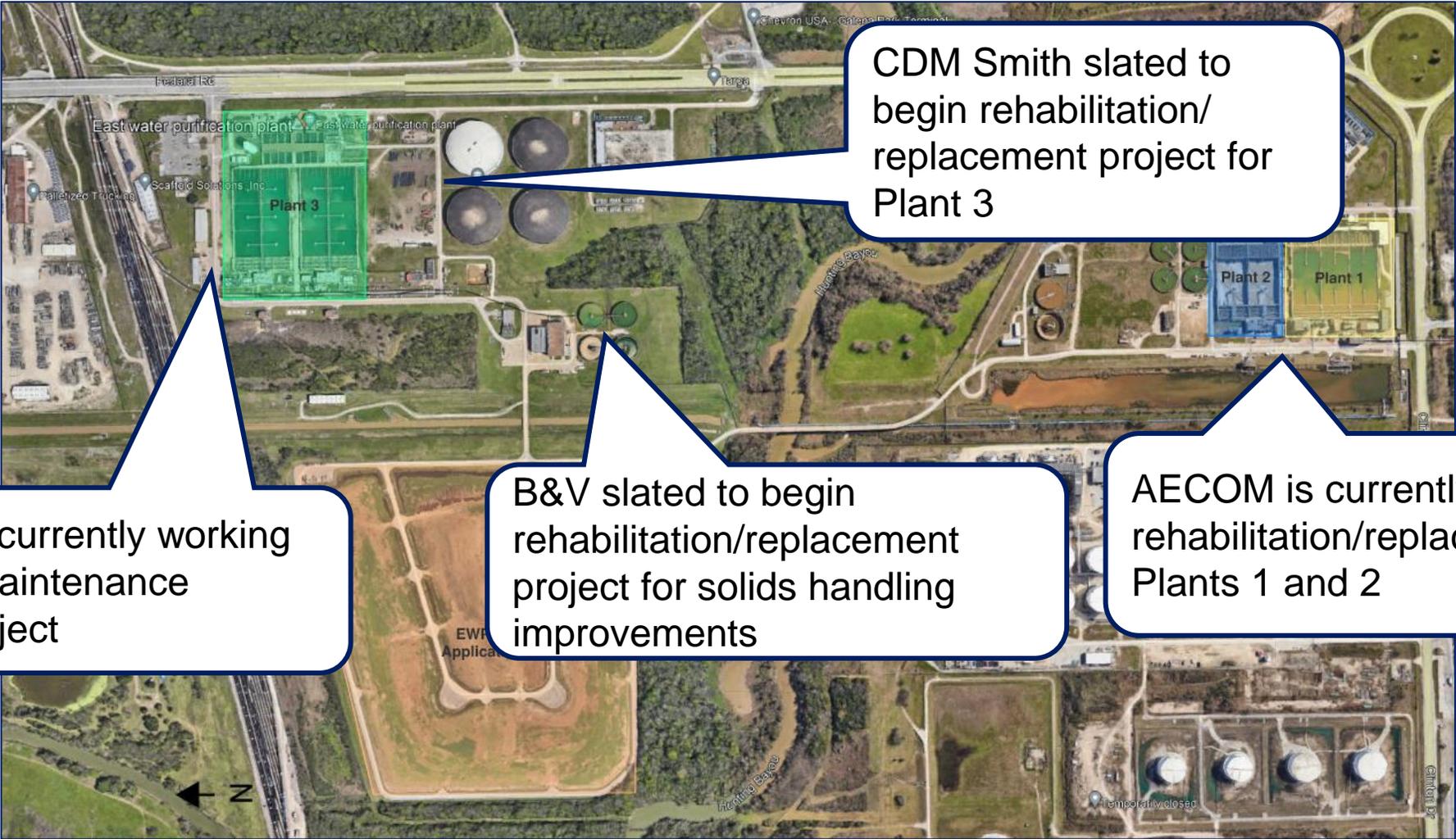


# PROJECT BUDGET

Cost Category	Estimated \$
<b>ESTIMATED CMAR COST</b>	<b>\$2.8 - \$3.2B</b>
Administration, Engineering, Permitting, Legal, Financing, City Contingency	\$0.5 - \$1.0B
<b>TOTAL ESTIMATED PROJECT BUDGET</b>	<b>\$3.3 - \$4.2B*</b>

\*Not including on-going CIP projects for existing facilities.

# CONTINUED INVESTMENT FOR EXISTING PLANTS



CDM Smith slated to begin rehabilitation/ replacement project for Plant 3

Huitt Zollar currently working on a new maintenance building project

B&V slated to begin rehabilitation/replacement project for solids handling improvements

AECOM is currently designing rehabilitation/replacements for Plants 1 and 2

# PROPOSED FUNDING PLAN

Sources	Estimated \$
Texas Water Development Board (TWDB) – State Water Implementation Funds for Texas (SWIFT) First Lien Private Placement Revenue Bonds	\$966M
WIFIA (Water Infrastructure Finance and Innovation Act) program	\$2,058M
CUS First Lien Revenue Bonds (Open-Market)	\$1,131M
COH Local Contribution	\$45M
<b>Total Sources</b>	<b>\$4.2B</b>

# TIMELINE / NEXT STEPS FOR TWDB FUNDING

## TWDB Benefits

### Loan Award \$966,092,000

- TWDB SWIFT Loan subsidized interest rate – 14% discount from market rate
- 3-year multi-year commitment to the City of Houston
- The amounts of Year 2 and 3 loans are flexible and will be borrowed as needed

### Next Steps:

- SWIFT Application approved by Council April 30, 2025
- The City submits the TWDB Application target date May 12, 2025
- TWDB Board approves Application in July of 2025
- First loan installment of \$350 Million will require one Council Action in August 2025
  - Council Approval of Financing Agreement
- Note: Loan closing November/December 2025, funds disbursed

# BACKGROUND / NEXT STEPS FOR WIFIA FUNDING

## WIFIA Background

- The Water Infrastructure Finance and Innovation Act (WIFIA) program accelerates investment in our nation's water and wastewater infrastructure by providing long-term financing commitments.
- Each year, Congress appropriates funds to WIFIA to provide about \$6 billion in financing with no prepayment penalty
- Interest rate will be equal to or greater than the U.S. Treasury rate of a similar maturity.
- Requires Build America Buy America (BABA) and American Iron and Steel (AIS). TWDB requires AIS.

## WIFIA Benefits

- WIFIA can finance up to 49% of the anticipated project costs.
- Repayment may be deferred 5 years after substantial completion of a project (CMAR).
- WIFIA commitment can be used as an appropriation facility to let contracts.

## Next Steps

- WIFIA has granted the City a Build America Buy America waiver.
- The City is meeting with Masterson Advisors to determine the best financing structure for this project.

# NEXT STEPS

1. Council vote on SWIFT funding followed by submission of application to TWDB



2. Determine best funding structure for WIFIA



3. Initiate CMAR and designer procurements



4. Project Advisor/Technical Consultant amendment

# thank you!



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