



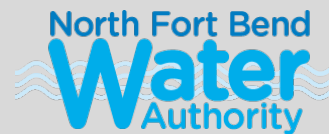
WATER PURIFICATION PLANT EXPANSION

Upcoming Requests for Council Action

Transportation, Technology & Infrastructure Committee
June 24, 2019



Central Harris County
Regional Water Authority



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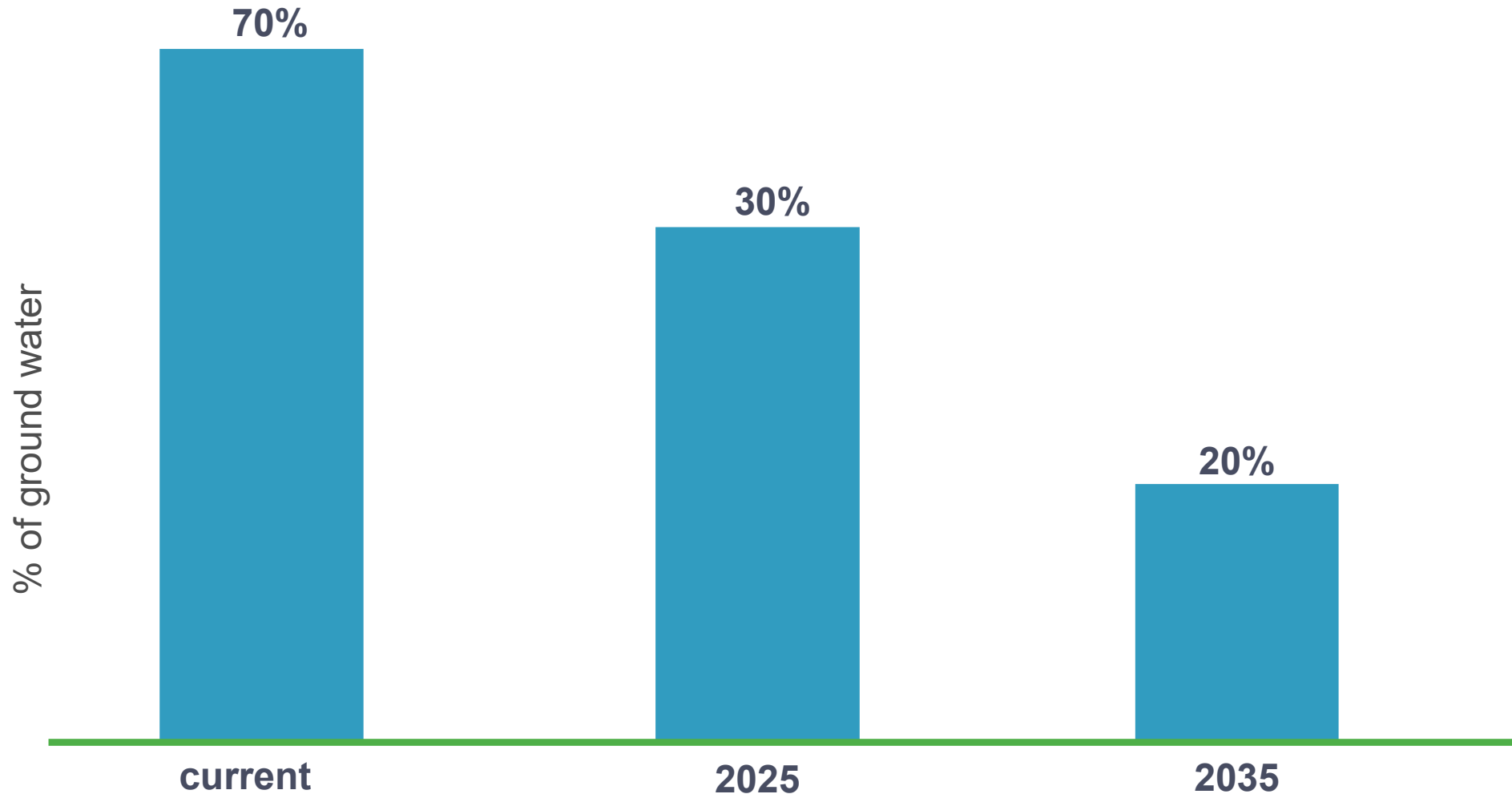
5 Next Steps

REQUESTS FOR COUNCIL ACTION

when	what	who
June 2019	<p>Water Supply Contract 1st Amendment to 2nd Supplement of Water Supply Contract (4 separate contracts)</p>	<p>North Harris County Regional Water Authority West Harris County Regional Water Authority Central Harris County Regional Water Authority North Fort Bend Water Authority</p>
July 2019	<p>Independent Engineering Services 7th Additional Appropriation to Professional Engineering Services Contract for Project Advisor / Technical Consultant</p>	<p>Carollo Engineers, Inc.</p>
July 2019	<p>Guaranteed Maximum Price 8th Amendment to Design-Build Services Contract</p>	<p>Houston Waterworks Team</p>

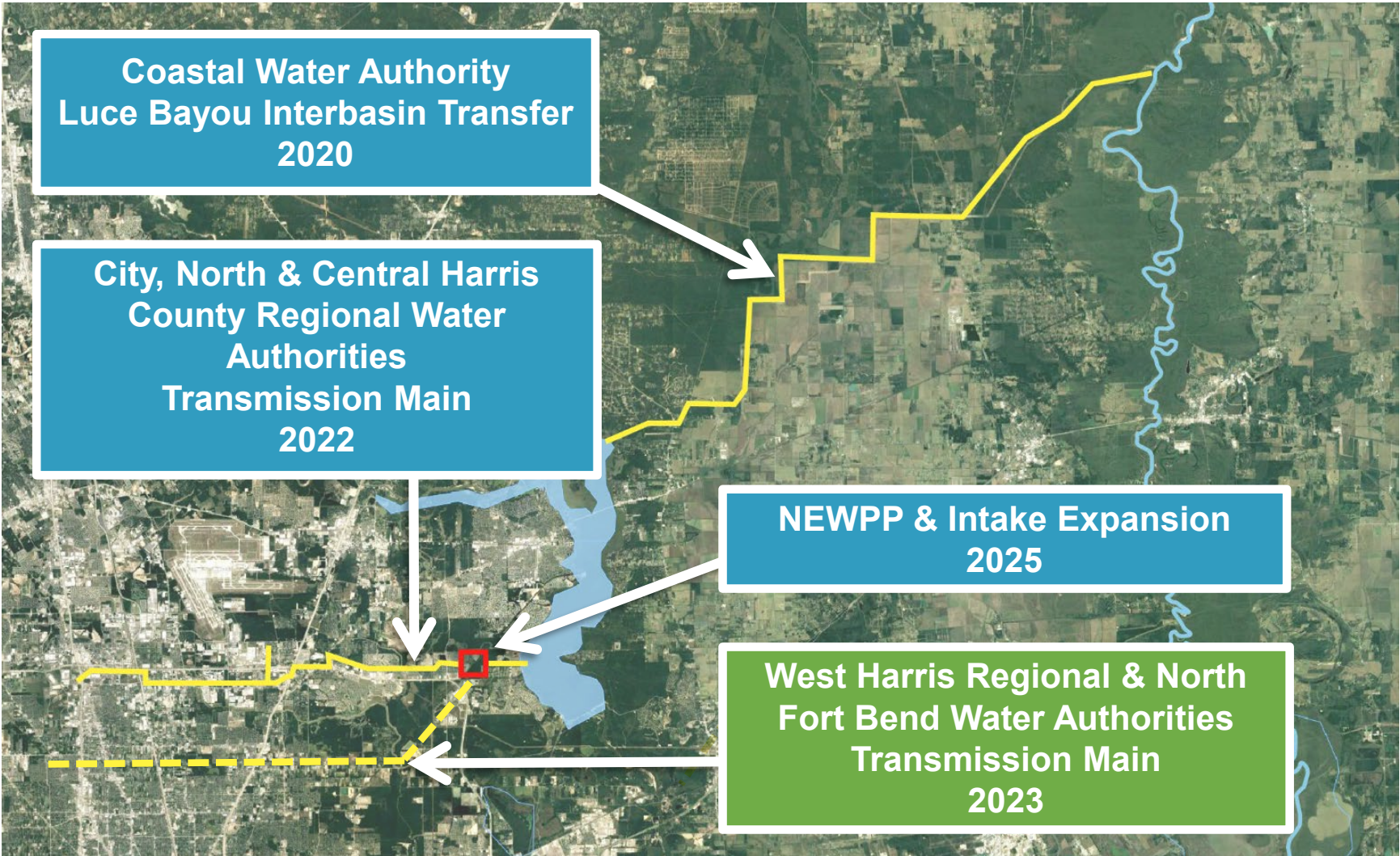
BACKGROUND

MAXIMUM GROUNDWATER USE



this requirement pertains to the Area 3 of the Harris Galveston Subsidence District and Area A of the Fort Bend Subsidence District

INTEGRATED SOLUTION

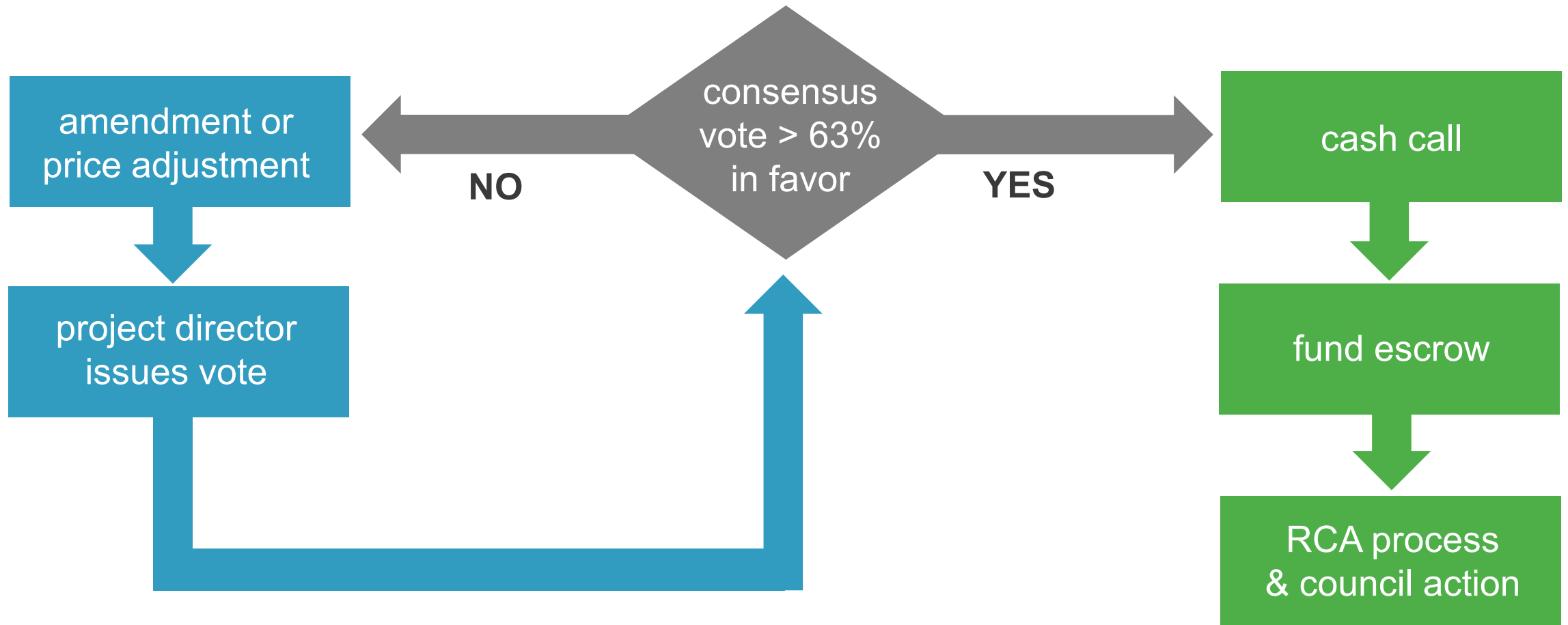


LEGEND

projects with city participation

project by others

VOTING PROCESS



a weighted vote that exceeds 63% must be achieved to approve each item
votes are weighted by each participant's capacity share

WATER SUPPLY CONTRACT

CONTRACT PROGRESSION

	original contract	1 st supplement	2 nd supplement
date	2002-2008	2009	2015
purpose	City / authority capacity reservations	Luce Bayou Inter-Basin Transfer Project	NEWPP Expansion Project Cost and Capacity Share
amendments	transmission system	Amendment to 1 st Supplement - 2013 Incorporate Texas Water Development Board Loan	Amendment to 2 nd Supplement – July 2019 Establish Procedures for Operations and Distribution

KEY PROVISIONS | NO FUNDING REQUIRED

procedures for operations & distribution systems

- excess water usage
- leasing water between participants
- facility management committee
- capital renewal fund
- metering

REQUESTS FOR COUNCIL ACTION

when	what	who
June 2019	Water Supply Contract 1 st Amendment to 2nd Supplement of Water Supply Contract (4 separate contracts no funding required)	North Harris County Regional Water Authority West Harris County Regional Water Authority Central Harris County Regional Water Authority North Fort Bend Water Authority

INDEPENDENT ENGINEERING SERVICES

DESIGN-BUILD REQUIREMENTS

Per State Law: engineering services MUST be provided independent of the design-build firm

TEXAS ADMINISTRATIVE CODE 2269

Sec. 2249.356. USE OF OTHER PROFESSIONAL SERVICES. (a) The governmental entity shall provide or contract for independently of the design-build firm, the following services as necessary for the acceptance of the civil works project by the entity:

- (1) inspection services;
- (2) construction materials engineering and testing; and
- (3) verification testing services

Carollo Engineers, Inc.
is the Project Advisor/Technical Consultant (PATC)
that provides Independent Engineering Services

Independent Engineering Services = PATC

KEY PROVISIONS

Project Advisor / Technical Consultant (PATC) services through 2025

- technical oversight
- project management advisory services
- public engagement
- quality assurance
- construction auditing
- start-up, commissioning & operations / maintenance support

REQUEST FOR COUNCIL ACTION

when	what	contract amount	management reserve	city salary recovery	appropriation
July 2019	Independent Engineering Services 7 th Additional Appropriation to Professional Engineering Services Contract for Project Advisor / Technical Consultant	\$68.0M	\$2.0M	\$2.0M	\$72.0M

SUMMARY

approval action		contract amount	management reserve	city salary recovery	appropriation ¹
previous	contract & amendments 1-6	\$31.5M	\$0	\$2.8M	\$34.3M
current	Project Advisor/Technical Consultant	\$68.0M	\$2.0M	\$2.0M	\$72.0M
total		\$99.5M	\$2.0M	\$4.8M	\$106.3M

1. appropriation includes management reserve & city salary recovery

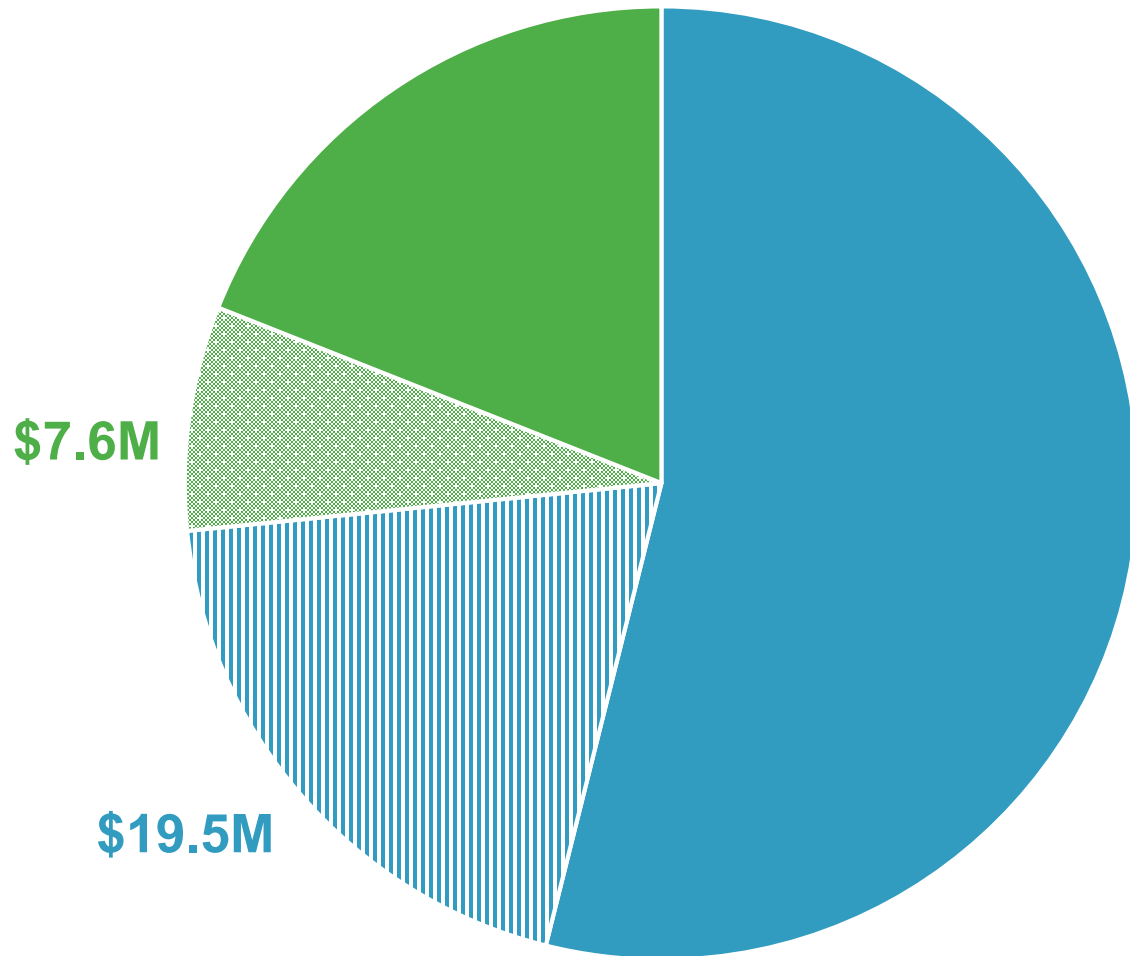
COST SHARING

approval action		appropriation ¹	City of Houston (16% + oversized) ²	water authorities (84%)
previous	contract & amendments 1-6	\$34.3M	\$5.5M	\$28.8M
current	7 th Additional Appropriation to Professional Engineering Services Contract for Project Advisor / Technical Consultant	\$72.0M	\$11.5M	\$60.5M
future	no additional appropriations	N/A	N/A	N/A
total		\$106.3M	\$17.0M	\$89.3M





1. appropriation includes management reserve & city salary recovery

2. city is funding 100% of oversized facilities that will allow for future beneficial use of entirety of water rights in San Jacinto & Trinity River

COMMITMENT TO MWBEs



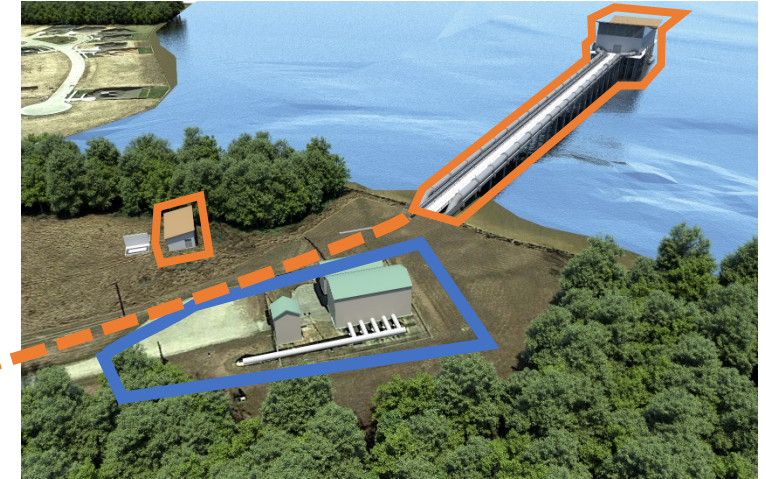
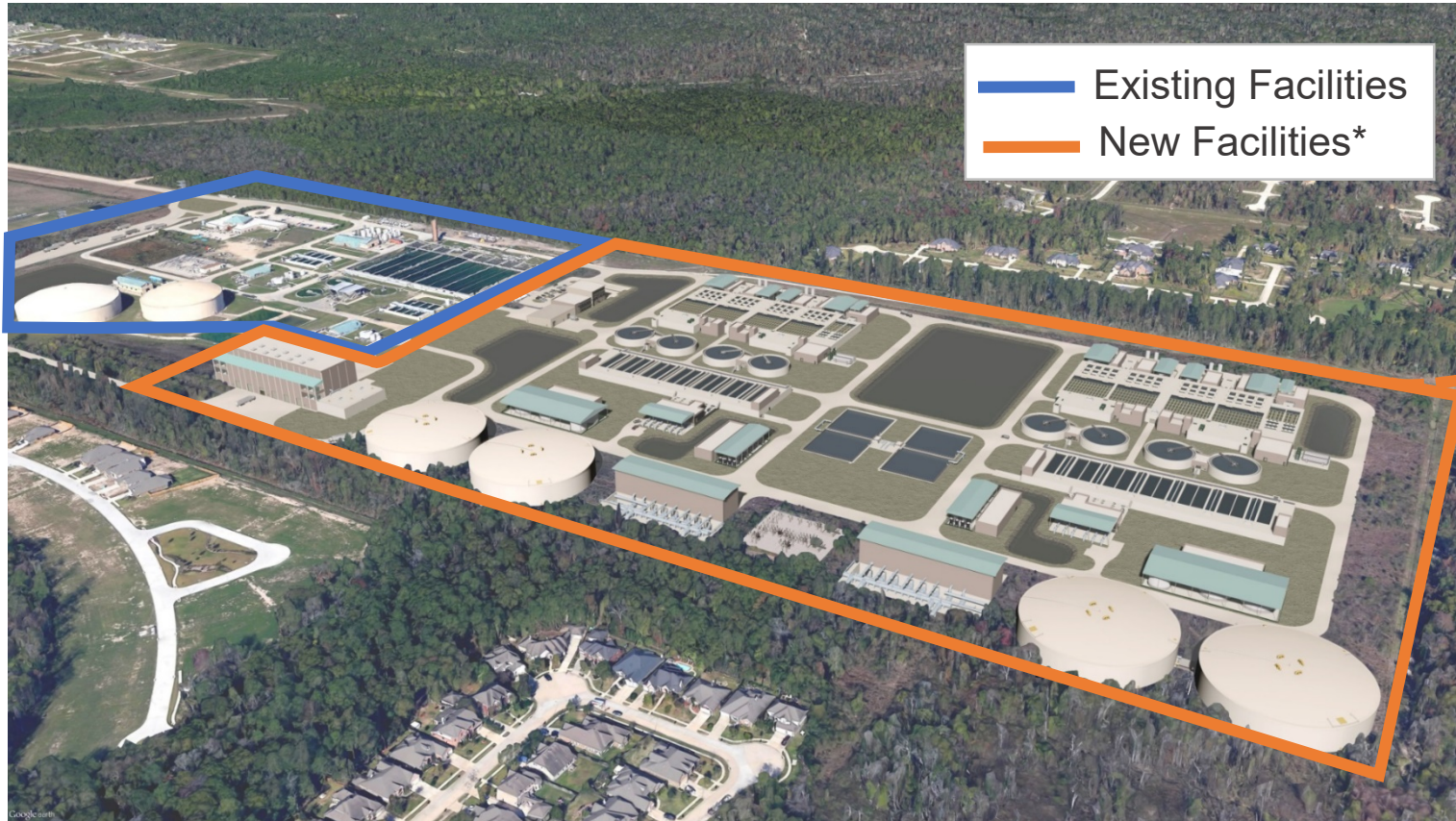
PROJECT GOAL
24% participation of \$99.5M

-  PATC balance
-  PATC paid to date*
-  MWBE proposed commitment
-  MWBE paid to date*

*the paid to date dollars vary from the Houston Office of Business Opportunity website: PATC - \$19.8M, MWBE - \$7.4M

GUARANTEED MAXIMUM PRICE

NORTHEAST WATER PURIFICATION PLANT



Intake Pump Station

Raw Water Pipelines*

Treatment Facilities

* new facilities shown are renderings of the completed project

KEY PROVISIONS

- plant expansion construction
- permitting
- construction supervision
- material testing / quality control
- inspection
- integration
- plant start-up
- final acceptance

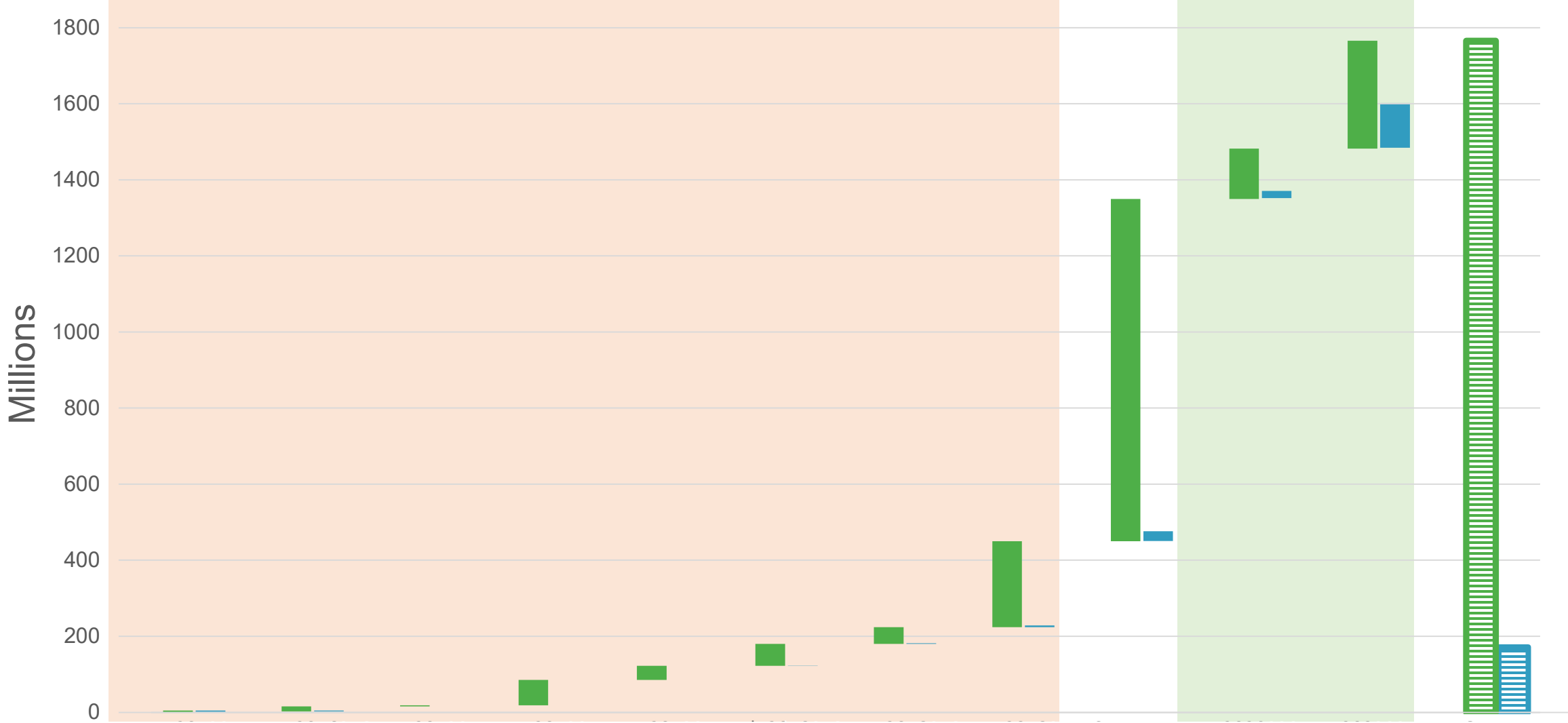
PRICE BREAKDOWN

task	amount
design*	\$174,225,383
construction*	\$1,120,085,461
construction management*	\$108,685,635
inspection / testing*	\$49,193,630
major equipment	\$83,843,499
design-build fee / contingency	\$180,049,719
performance bonds / payment bonds	\$49,449,507
guaranteed max price total	\$1,765,532,834

*eligible for MWSBE participation (\$1.452B)

	Dec 2015	Nov 2016	Mar 2017	May 2017	Dec 2017	Feb 2018	Apr 2018	Dec 2018	Current	2020	2021	TOTAL
contract & amendment amount	\$2.8M	\$13.0M	\$3.0M	\$66.3M	\$37.3M	\$57.5M	\$43.8M	\$226.0M	\$900.0M	\$132.1M	\$283.7M	\$1,765.5M
city salary recovery & management reserve	\$0.4M	\$2.0M	\$0	\$0	\$0	\$0.5M	\$1.7M	\$4.5M	\$25.8M	\$18.8M	\$117.4M	\$171.1M

PROJECT APPROPRIATIONS



previous appropriations (contract & amendments 1 - 7) current future

CURRENT REQUEST FOR COUNCIL ACTION

when	what	contract amount	management reserve	city salary recovery	appropriation
July 2019	Guaranteed Maximum Price 8 th Amendment to Design-Build Services Contract	\$900.0M	\$23.3M	\$2.5M	\$925.8M

SUMMARY

approval action		contract amount	management reserve	city salary recovery	appropriation ¹
previous	contract & amendments 1-7	\$449.7M	\$6.7M	\$2.4M	\$458.8M
current	8 th Amendment to the Design-Build Services Contract	\$900.0M	\$23.3M	\$2.5M	\$925.8M
future	appropriation – 2020	\$132.1M	\$16.3M	\$2.6M	\$150.9M
	appropriation –2021	\$283.7M	\$114.8M	\$2.6M	\$401.1M
total		\$1,765.5M	\$161.1M	\$10.0M	\$1,936.6M

1. appropriation includes management reserve & city salary recovery

COST SHARING

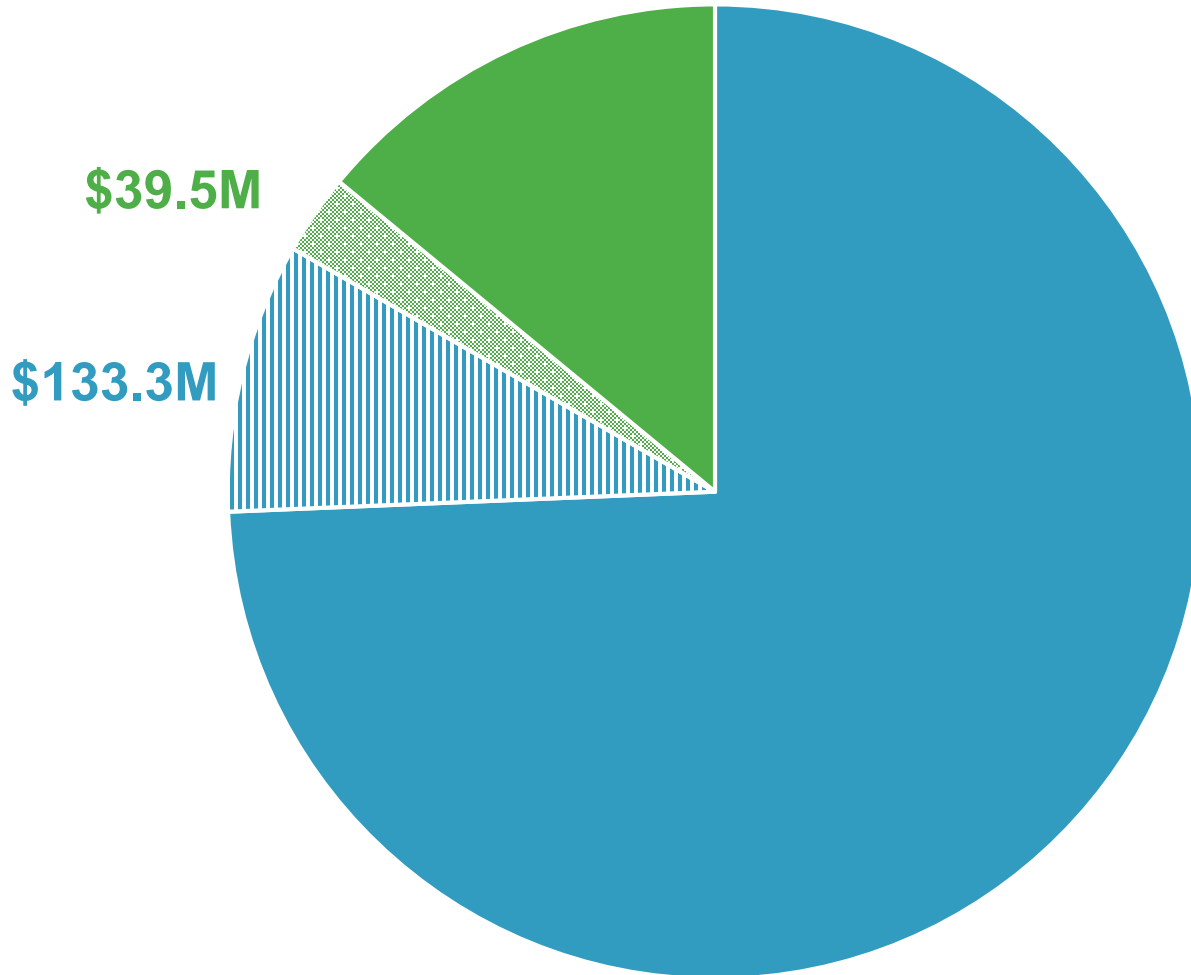
approval action		appropriation ¹	City of Houston (16% + oversized) ²	water authorities (84%)
previous	contract & amendments 1-7	\$458.8M	\$99.3M	\$359.5M
current	8 th Amendment to the Design-Build Services Contract	\$925.8M	\$253.0M	\$672.8M
future	appropriation – 2020	\$150.9M	\$2.6M	\$148.3M
	appropriation –2021	\$401.1M	\$81.4M	\$319.8M
total		\$1,936.6M	\$436.3M	\$1,500.3M

1.appropriation includes management reserve & city salary recovery





2.city is funding 100% of oversized facilities (\$75.5M) that will allow for future beneficial use of entirety of water rights in San Jacinto & Trinity River

GUARANTEED MAXIMUM PRICE

COMMITMENT TO MWSBEs



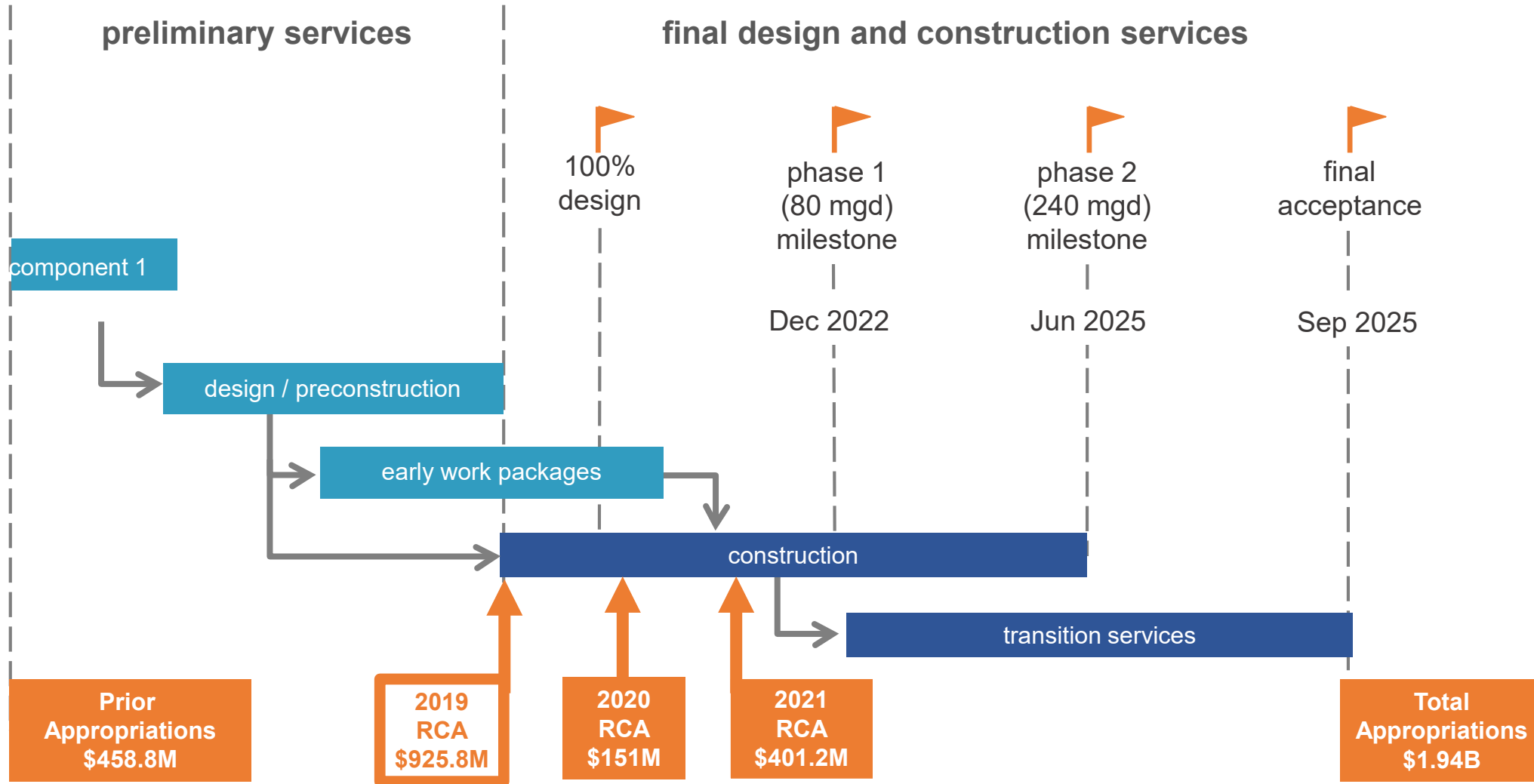
PROJECT GOAL
13.5% participation of
GMP \$1.766B

-  Houston Waterworks Team (HWT) balance
-  HWT paid to date*
-  MWSBE proposed commitment
-  MWSBE paid to date*

*the paid to date dollars vary from the Houston Office of Business Opportunity website: HWT \$131.5M, MWSBE - \$34.2M

NEXT STEPS

SCHEDULE



COUNCIL ACTION

approval action		appropriation ¹	City of Houston (16% + oversized) ²	water authorities (84%)
current	1 st Amendment to the 2 nd Supplement of Water Supply Contract (4 separate contracts)	N/A	N/A	N/A
	7 th Additional Appropriation to Professional Engineering Services Contract for Project Advisor / Technical Consultant	\$72.0M	\$11.5M	\$60.5M
	8 th Amendment to Design-Build Services Contract	\$925.8M	\$253.0M	\$672.8M
future	Design-Build – 2020 appropriation	\$150.9M	\$2.6M	\$148.3M
	Design-Build – 2021 appropriation	\$401.1M	\$81.4M	\$319.8M

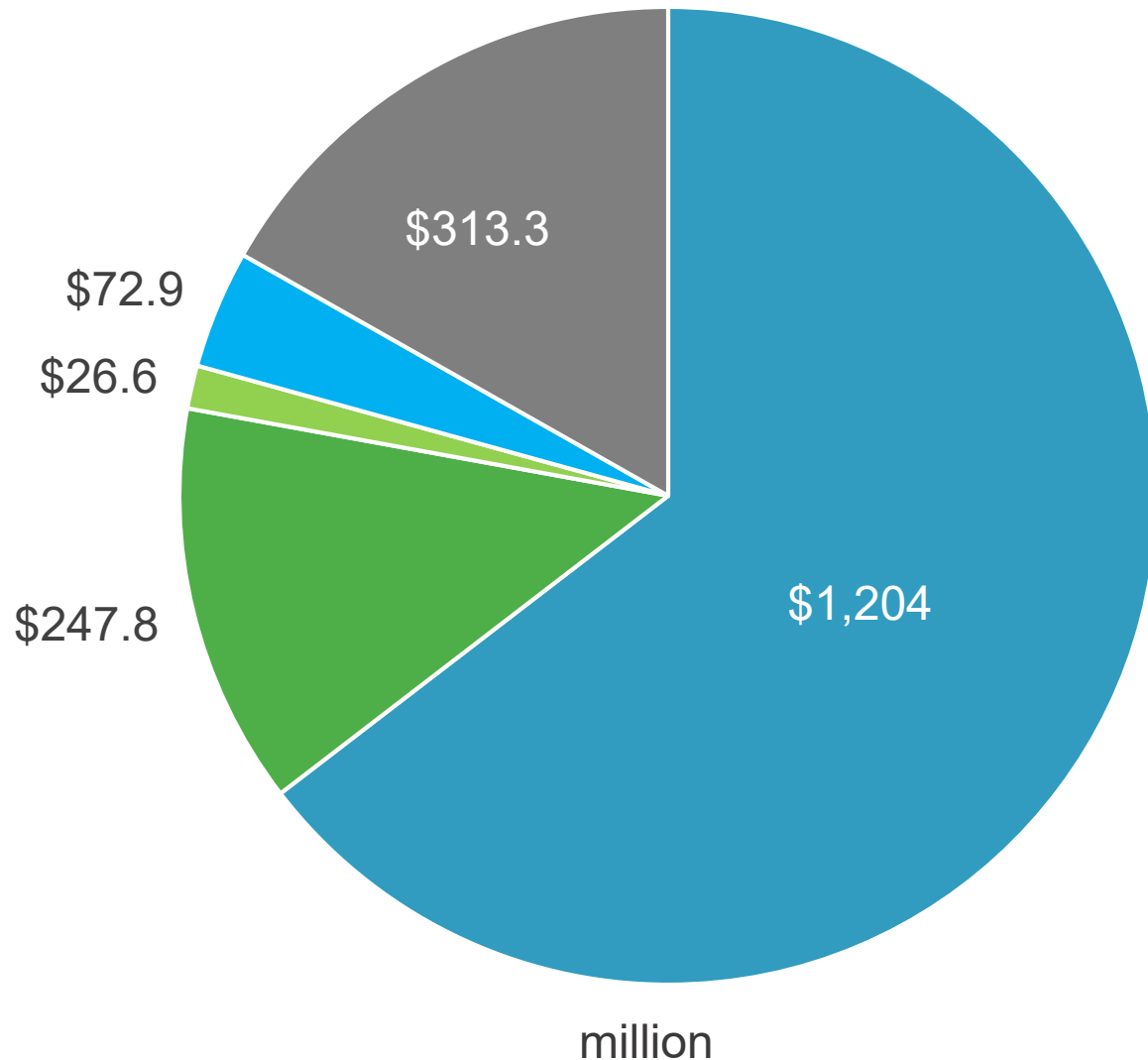
1. appropriation includes management reserve & city salary recovery
2. city is funding 100% of oversized facilities that will allow for future beneficial use of entirety of water rights in San Jacinto & Trinity River
city's share of 16% of GMP in the 1st appropriation to indicate good faith

COUNCIL ACTION

future accept work

- early work package 1
- early work package 2A
- early work package 4
- early work package 6
- phase 1 milestone
- phase 2 milestone
- final

COMMITMENT TO MWSBEs








TOTAL PROJECT GOAL
\$274.4M
1,000+ jobs created

project subs

82 non-MWSBE

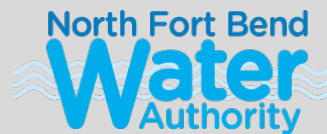
66 MWSBE

-  Houston Waterworks Team (HWT)
-  HWT MWSBE
-  PATC
-  PATC MWBE
-  non-eligible



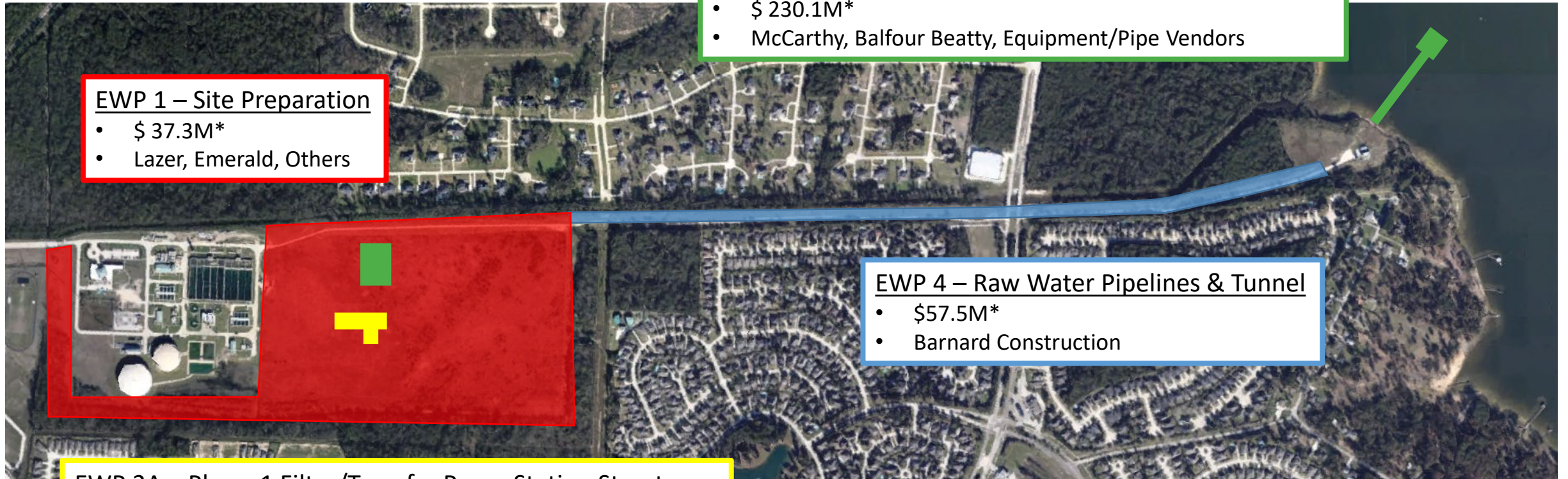
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appendix

EARLY WORK PACKAGES



EWP 1 – Site Preparation

- \$ 37.3M*
- Lazer, Emerald, Others

EWP 6 – Intake Pump Station/Pretreatment/Allowances

- \$ 230.1M*
- McCarthy, Balfour Beatty, Equipment/Pipe Vendors

EWP 4 – Raw Water Pipelines & Tunnel

- \$57.5M*
- Barnard Construction

EWP 2A – Phase 1 Filter/Transfer Pump Station Structures

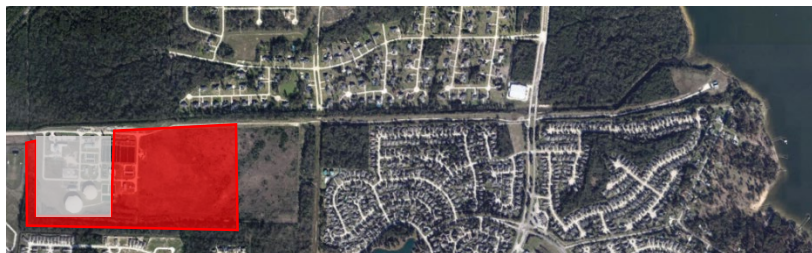
- \$43.8M*
- McCarthy Construction

*Guaranteed Maximum Price for HWT, not inclusive of reserve & administrative costs.

EARLY WORK PACKAGE 1 STATUS

Project Status

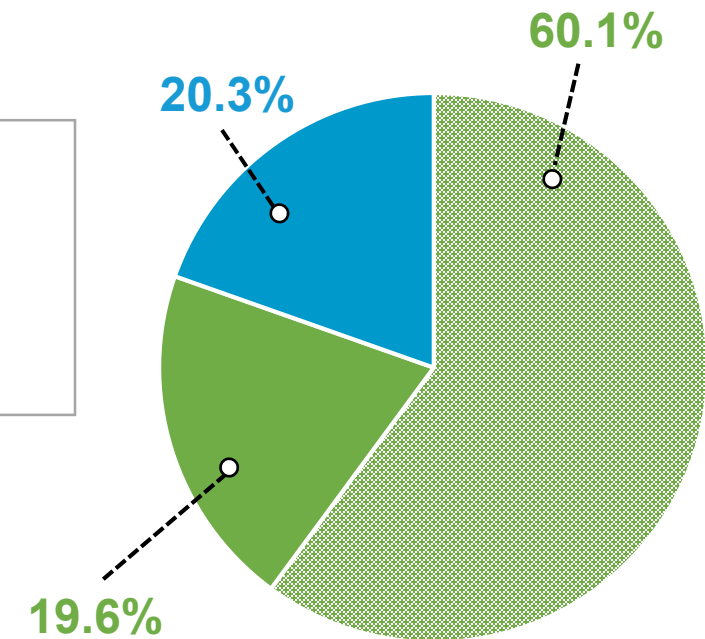
- 450 days of 598 contract completed
- \$28.73M of \$37.34M contract expended



MWSBE Participation

\$13.8M Committed of \$17.2M Direct Construction Cost

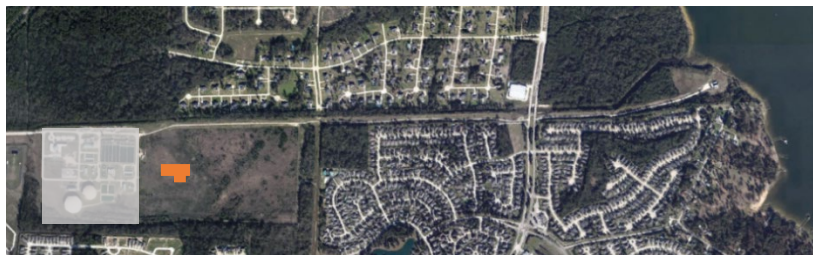
- Balance of Work - HWT
- MWSBE Balance Remaining
- MWSBE Paid to Date



EARLY WORK PACKAGE 2A STATUS

Project Status

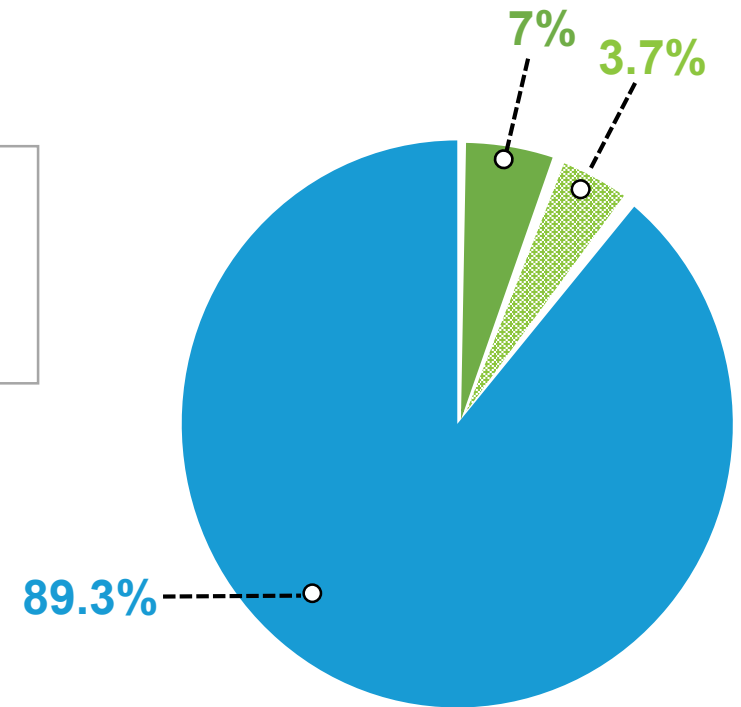
- 335 days of 600 contract completed
- \$18.13M of \$43.81M contract expended



MWSBE Participation

\$3.8M Committed of \$35.5M Direct Construction Cost

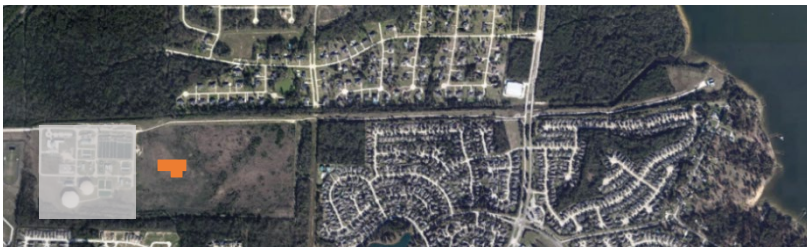
- Balance of Work - HWT
- MWSBE Balance Remaining
- MWSBE Paid to Date



EARLY WORK PACKAGE 4 STATUS

Project Status

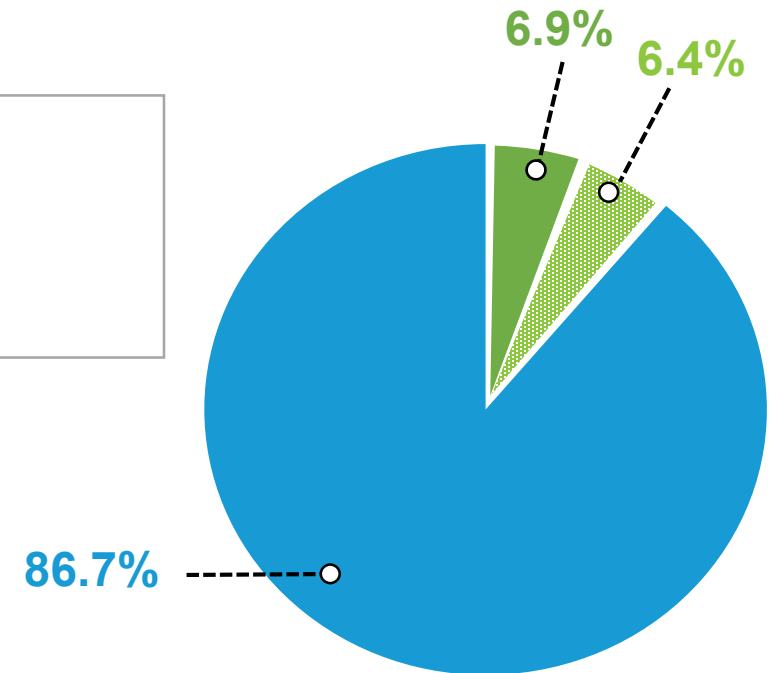
- 384 days of 600 contract completed
- \$29.98M of \$57.48M contract expended



MWSBE Participation

\$4.3M Committed of \$32.2M Direct Construction Cost

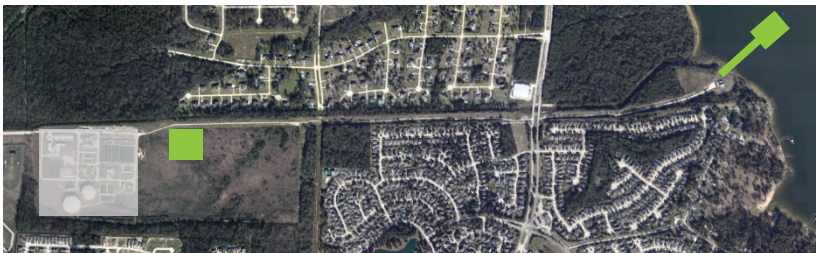
- Balance of Work - HWT
- MWSBE Balance Remaining
- MWSBE Paid to Date



EARLY WORK PACKAGE 6 STATUS

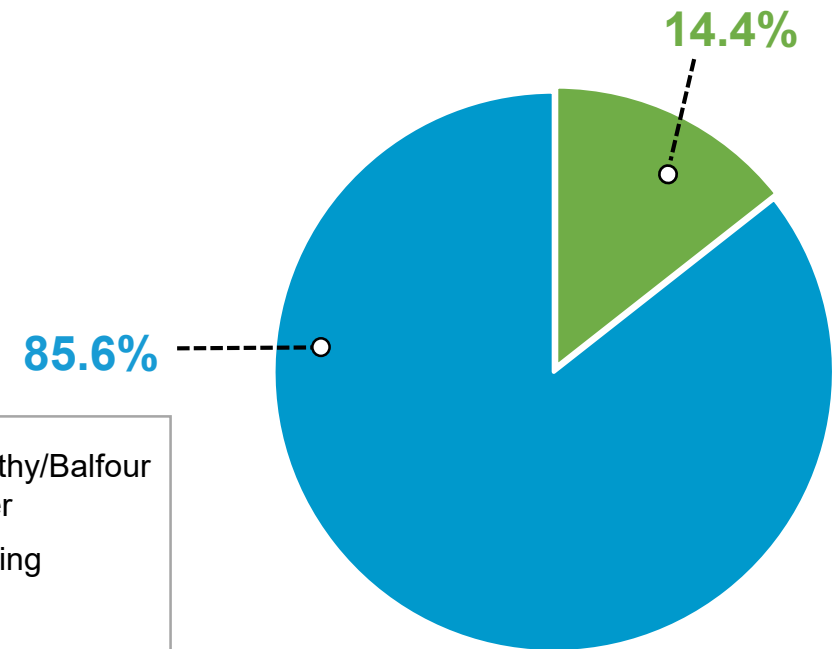
Project Status

- 94 days of 1306 contract completed
- \$19.30M of \$214.48M contract expended



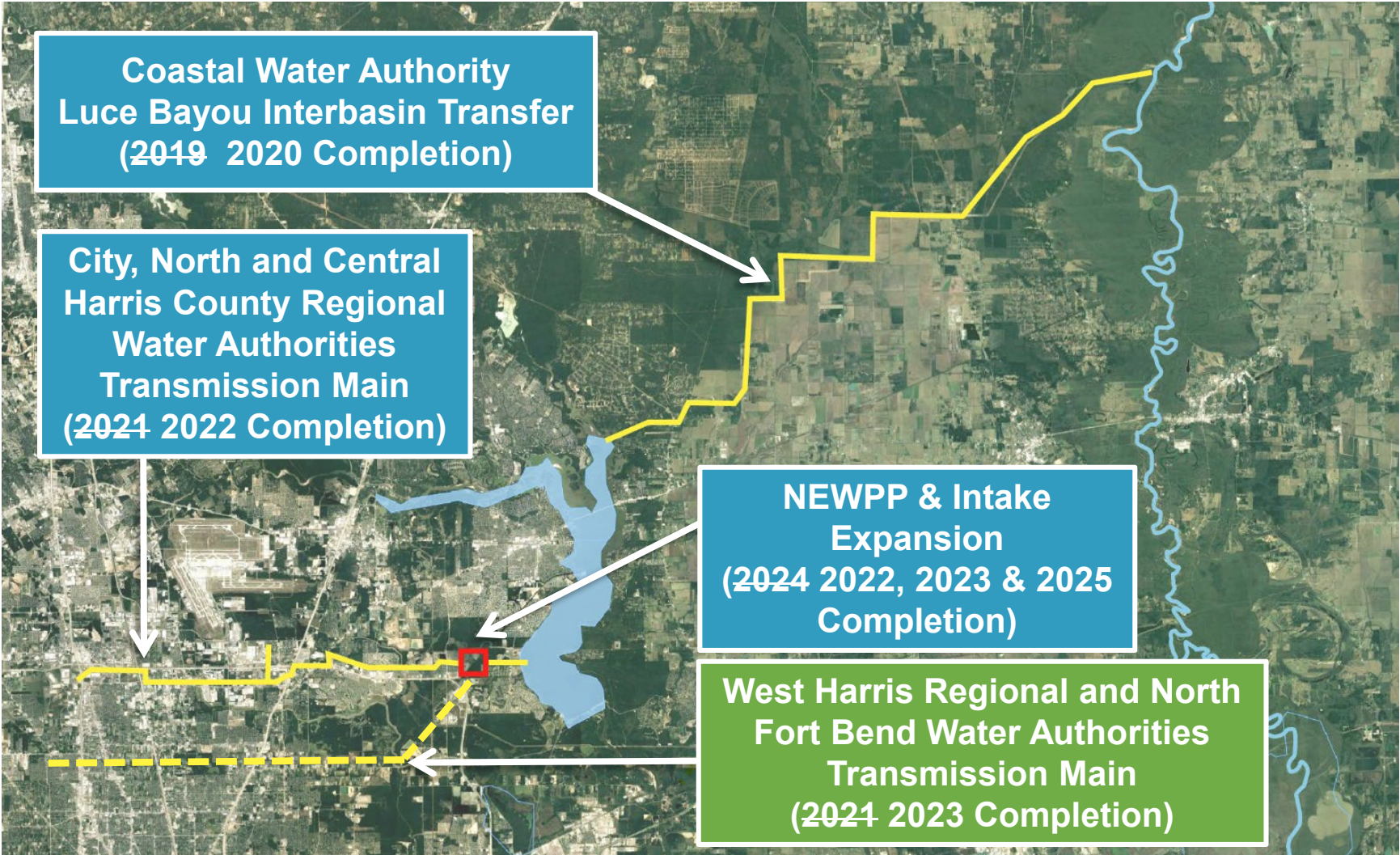
MWSBE Participation

\$13.04M Committed of \$90.45M
Direct Construction Cost





- Balance of Work – McCarthy/Balfour Beatty/Equipment Supplier
- MWSBE Balance Remaining
- MWSBE Paid to Date

INTEGRATED SOLUTION

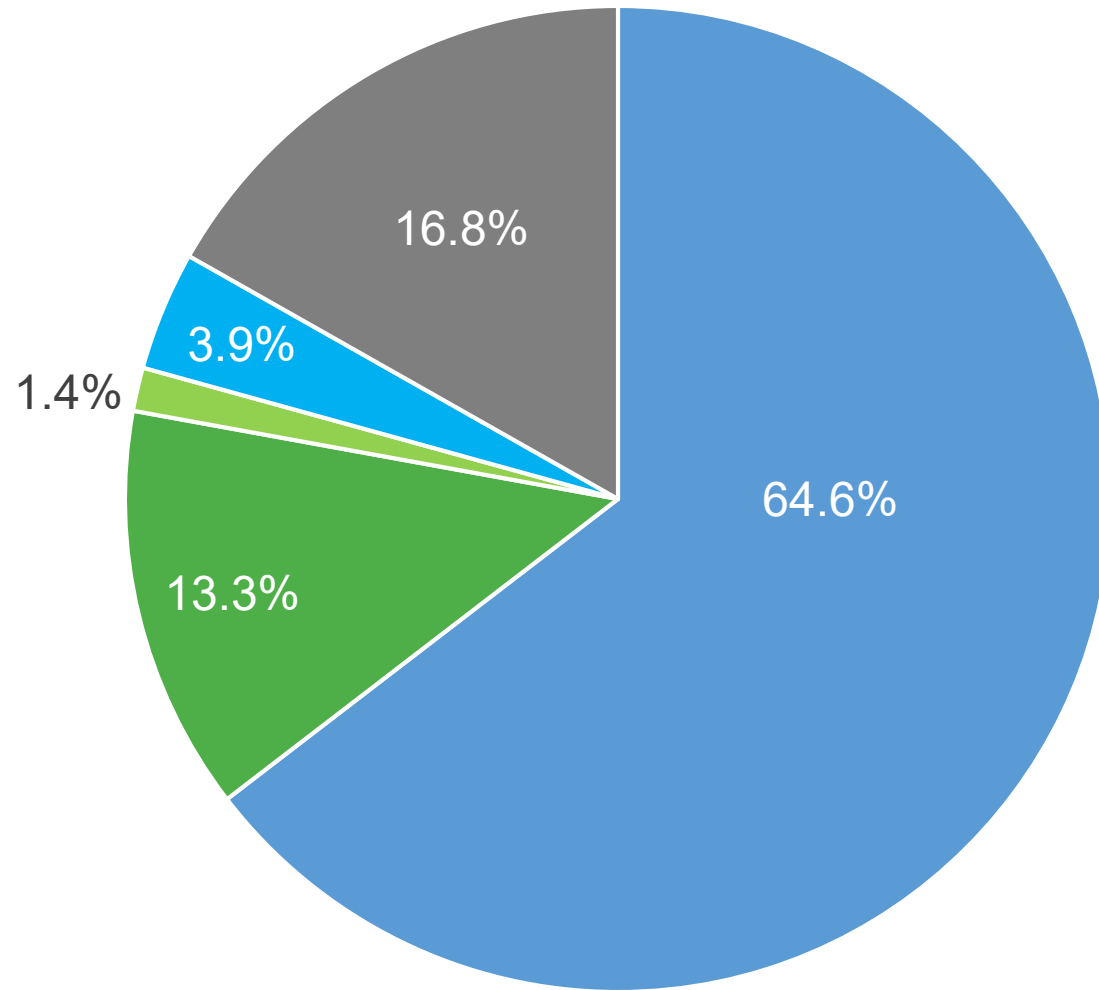


LEGEND

-  Project with City Participation
-  Project by Others

COMMITMENT TO MWSBEs

TOTAL PROJECT GOAL
\$274.4M
1,000+ jobs created



% of total project (HWT & PATC together)

project subs

82 non-MWSBE

66 MWSBE

 Houston Waterworks Team (HWT)

 HWT MWSBE

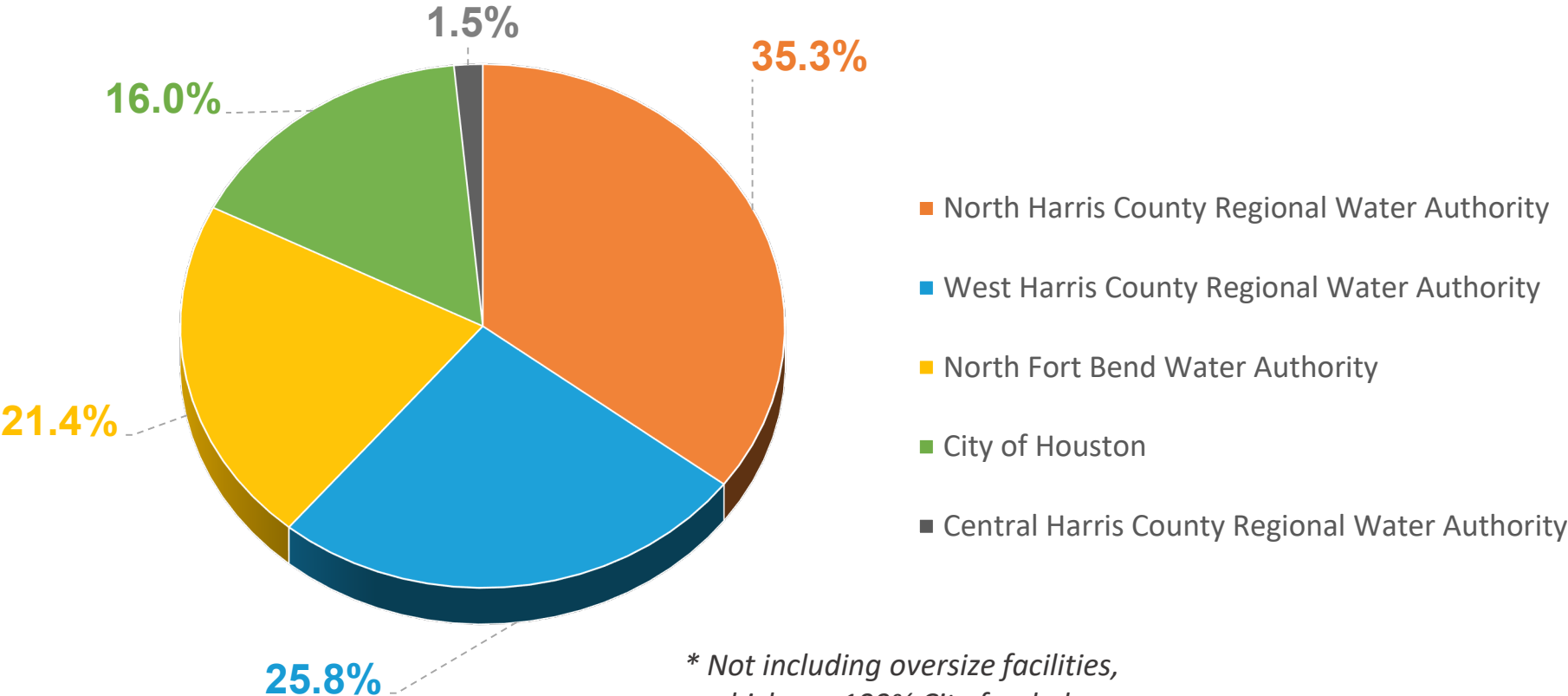
 PATC

 PATC MWBE

 non-eligible

SECOND SUPPLEMENT

Cost and Capacity Share*



* Not including oversize facilities, which are 100% City funded