NEWPP Expansion Project Update

Transportation, Technology & Infrastructure Committee

October 17, 2018
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1 | BACKGROUND
SUBSIDENCE REQUIREMENT

% of Demand Supplied by Surface Water

Current
January 2025
January 2035

% of Demand Supplied by Surface Water

0
10
20
30
40
50
60
70
80
90
0
10
20
30
40
50
60
70
80
90

Current
January 2025
January 2035
BIG PICTURE PLAN

CWA
Luce Bayou Interbasin Transfer
2019 Completion

City/NHCRWA/CHCRWA Transmission Main
2021 Completion

New Plant & Intake
2024 Completion

WHCRWA/NFBWA Transmission Main
2021 Completion

LEGEND

Project with City participation

Project by others
CONSTRUCTION

Treatment Facilities*

*Renderings of future facilities at completion of construction
NEWPP Expansion Cost Share

- North Harris County Regional Water Authority: 35.3%
- West Harris County Regional Water Authority: 25.8%
- North Fort Bend Water Authority: 21.4%
- City of Houston: 16.0%
- Central Harris County Regional Water Authority: 1.5%
Article VI of the Second Supplement Contracts between each Authority and the City requires Authority consensus for approval of all contract amendments. A weighted vote that exceeds 63% must be achieved to approve each item.

*Weighted consensus based on the following cost share percentages:
- NHCRWA – 35%
- WHCRWA – 25.8%
- NFBWA – 21.4%
- Houston – 16%
- CHRWA – 1.5%
2| EARLY WORK PACKAGE 6
SCHEDULE

Preliminary Services
- Basis of Design
- Component 1
- Design/Preconstruction

Early Work Packages
- We are Here (Oct 2018)

Final Design & Construction Services
- GMP Proposal/60% design
- 100% design
- Phase 1 (80 mgd) milestone
- Phase 2 (240 mgd) milestone
- 8/31/22 (current estimate)
- 6/30/24 (current estimate)

NEWPP Construction

Guaranteed Maximum Price Approval (Dec 2018-Feb 2019)

Amendment 7 (current RCA)

Amendments 1-6 (Jun ’16 – Nov ‘18)

Contract Award & Notice-to-proceed (December 2015)

Final Completion

Final Acceptance (Dec 2024)
OVERVIEW

Early Work Package 6 ≈ $230M
INTAKE PUMP STATION

• $69.9M
• McCarthy Construction
• Construction of intake, pump station, bridge deck, building, on-shore electrical building, associated piping & mechanical

Renderings of future facilities at completion of construction
NORTH PLANT STRUCTURES

- $20.5M
- Balfour Beatty Construction
- Concrete structures for rapid mix, floc/sed, recycle facilities for Train 2
- Structure on critical path for reaching Phase 1 milestones

Rendering of future facilities at completion of construction
EQUIPMENT, PIPING & OTHER ALLOWANCES

Total Allowances - $96.2M
• Yard Piping - $50.9M
  • 108” Raw Water
  • 120” Finished Water
  • Other Piping Systems
• Equipment - $33.0M
  • Large Valves
  • Vertical Turbine Pumps
  • Ozone Equipment
  • Adjustable Speed Drives
• Concrete Batch Plant - $5.0M
• Other - $7.3M
# INDIRECT COSTS

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<th>Description</th>
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<tr>
<td>Professional Services</td>
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<tr>
<td>General Conditions</td>
<td>$7.4M</td>
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<td>Fee</td>
<td>$10.7M</td>
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<tr>
<td>Bonds</td>
<td>$4.2M</td>
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<td>Contingency</td>
<td>$6M</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$43.4M</strong></td>
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MWSBE PARTICIPATION
EARLY WORK PACKAGE 6

MWSBE Participation for North Plant
Balfour Beatty
$3.7M of $20.5M direct construction cost

- Balance of Work: 82.0%
- MWSBE: 18.0%

*Capacity Study indicated 18% participation achievable

MWSBE Participation for Intake Pump Station
McCarthy Construction
$9.4M of $70.0M direct construction cost

- Balance of Work: 86.6%
- MWSBE: 13.4%

*Capacity Study indicated 12% participation achievable

MWSBE* Firms include A&A Trucking, Hallmark Hose, Medcalf Fabrication, & Spartan Reinforcing

MWSBE* Firms include Pyramid, Locke Solutions, Rustbusters, Omni Pipe, FABco, Competitive Choice, Gutier, Empire, Rebar Reinforcing Placers
EARLY WORK PACKAGE (EWP) OVERVIEW

EWP 2A – Phase 1 Filter/Transfer Pump Station Structures
$45.5M - McCarthy Construction
Project Description
- Concrete structures for West Filter and Transfer Pumping Station
- Underslab piping & dewatering

EWP 4 – Raw Water Pipelines
$57.9M - Barnard Construction
Project Description
- Install two 108” pipelines
- Tunnel under West Lake Houston Parkway
- Electrical ductbank & chemical piping

EWP 1 – Site Preparation
$37.3M - Lazer, Emerald, Others
Project Description
- Clear and grub 90 acre site
- Stormwater management
- Roads, trailers, fence
- Mass excavation

Existing Plant

#DEER PURIFICATION PLANT EXPANSION
EWP 1 – SITE PREP

Anticipated completion – Spring 2019, on budget
EWP 2A – PHASE 1 FILTER + TRANSFER PUMP STATION STRUCTURES

Night-time Concrete Pour

Foundation for Transfer Pump Station

Anticipated completion – Spring 2020, on budget
EWP 4 – RAW WATER PIPELINES

Tunneling under West Lake Houston Parkway is ongoing

108” raw water pipes are being installed

Anticipated completion – Spring 2020, on budget
OVERALL M/WBE PARTICIPATION

Design-Builder Subconsultant Participation

- M/WBE Firms – 23.6%
- Regional – 3.2%
  (Binkley & Barfield, LAN & others)
- Houston Waterworks Team – 73.2%

Project Advisor/Technical Consultant Subconsultant Participation

- M/WBE Firms – 25.7%
- Regional – 4.9%
  (SWCA, CP&Y & Espey)
- Carollo – 69.4%

As of October 2018
OVERALL MWSBE PARTICIPATION

MWSBE Participation for EWP 1
$13.8M of $17.2M
direct construction cost

- 19.6% Balance of Work - HWT
- 30.5% M/WBE Firms include Landtech, Fence Master, Lazer and Emerald
- 49.9%*

MWSBE Participation for EWP 2A
$3.8M of $35.5M
direct construction cost

- 11.6% Balance of Work - McCarthy
- 88.5% M/WBE Firms include Rebar Reinforcement Placers, Cohen Industrial Supply, and C&B Waterworks, Inc.

MWSBE Participation for EWP 4
$4.3M of $32.2M
direct construction cost

- 86.7% Balance of Work - Barnard
- 10.7%* M/WBE Firms include Republic Traffic Safety, J. Simmons, Fierro Group, Z Logistics, M&D Foundation, AGS Consultants, All Steel

*80.4% Commitment of which 49.9% paid through Oct 2018 & 30.5% remaining to be paid

*13.3% Commitment of which 2.6% paid through Oct 2018 & 10.7% remaining to be paid

As of October 2018
COMMUNITY OUTREACH

Website: greaterhoustonwater.com
Hotline: 281-520-3777

Public Meetings:
- October 25, 2017
- November 15, 2017
- May 1, 2018
- September 4, 2018
- January 2019 - TBA

Quarterly public meetings
Construction notifications distributed
Over 75 contractor outreach events
4 | REQUESTS FOR COUNCIL ACTION
## RECENT & UPCOMING REQUESTS FOR COUNCIL ACTION

<table>
<thead>
<tr>
<th>Approval Action</th>
<th>Date</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Original Appropriation</td>
<td>December 9, 2015</td>
<td>$3.3M</td>
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<tr>
<td>Amendments #1 - #3</td>
<td>Dec 2016 – May 2017</td>
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<td>Amendment #4 – EWP 1</td>
<td>December 19, 2017</td>
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<td>Amendment #5 – EWP 4</td>
<td>February 28, 2018</td>
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<td>Amendment #6 – EWP 2A</td>
<td>April 18, 2018</td>
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<td>Legal Amendment</td>
<td>July 25, 2018</td>
<td>$154K</td>
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<td>Amendment #7 – EWP 6</td>
<td>November 2018</td>
<td>$230M</td>
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<td>Guaranteed Maximum Price Amendment</td>
<td>Late 2018/ Early 2019</td>
<td>TBD</td>
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<tr>
<td>Project Advisor/Technical Consultant Amendment</td>
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QUESTIONS?

greaterhoustonwater.com