Northeast Water Purification Plant Expansion

Presentation to Council
Transportation, Technology & Infrastructure Committee

Department of Public Works
& Engineering
November 12, 2015
NEWPP EXPANSION

- History/Purpose of the Project
- Procurement Process
- Procurement Activities
- Appropriation
History and Purpose
Project History and Purpose

- Regulatory Requirements to transition to surface water sources due to effects of subsidence
- Trinity River Water Rights were planned to meet this mandate:
  - Luce Bayou Inter-Basin Transfer (underway)
  - NEWPP Expansion (in procurement)
  - New Transmission Pipeline (underway)
NEWPP Expansion is one piece of overall plan to deliver & treat Trinity River supply.
NEWPP expansion is needed to meet conversion mandate (HGSD & FBSD)

- Current requirement: 30%
- January 2025 requirement: 60%
- January 2035 requirement: 90%
# NEWPP Expansion Partnership with Regional Water Authorities

**Cost Share Authorities:** 84% CoH 16%

<table>
<thead>
<tr>
<th>Regional Water Authority</th>
<th>Pro-rata Cost Share (%)</th>
<th>Phase I (1st 80 MGD) (%)</th>
<th>Phase II (remaining 240 MGD) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHCRWA</td>
<td>35.313</td>
<td>63.813</td>
<td>25.813</td>
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<tr>
<td>CHCRWA</td>
<td>1.525</td>
<td>0.575</td>
<td>1.842</td>
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<td>NFBWA</td>
<td>21.406</td>
<td>14.325</td>
<td>23.767</td>
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<tr>
<td>WHCRWA</td>
<td>25.756</td>
<td>21.288</td>
<td>27.246</td>
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<tr>
<td>COH</td>
<td>16.000</td>
<td>0.000</td>
<td>21.333</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>100.000</strong></td>
<td><strong>100.000</strong></td>
<td><strong>100.000</strong></td>
</tr>
</tbody>
</table>

- August 31, 2021
- June 30, 2024
- **CoH:** August 31, 2021 to June 30, 2024

**Pro-rata Cost Share:**

- Phase I (1st 80 MGD)
- Phase II (remaining 240 MGD)

**Totals:**

- 100.000
320 MGD expansion with early 80 MGD milestone is being planned

80 MGD module on-line no later than Aug. 2021*

Add’l 240 MGD on-line no later than June 2024

*Early completion of Phase I driven by incremental conversion mandate
NEWPP Expansion – First Steps (complete)

• Hire Project Advisor/Technical Consultant (PATC)
• Review existing & historical data; Evaluate current plant capabilities
• Develop/assess various options to meet mandate
• Evaluate various delivery methods
• Determined 2-Phase Design-Build Process was only means to achieve req’d delivery milestones (Aug 2021/June 2024)
• Negotiate 2nd Supplement Agreements between CoH & Authorities w/ Council approval
• Seek out TWDB funding
Reasons for 2-phase Design-Build

- Best opportunity to achieve Phase I Delivery Milestone
- Reduces overall schedule risk
- High degree of cost certainty
- Better ability to adapt to market conditions
- Reduces interface risk - One entity responsible for both design & construction
- Preserves City’s ability to collaborate & influence design decisions
Design-Builder’s Tasks

Preliminary Services:
• Design development
• Pre-construction services
• Guaranteed Max. Price (GMP) for Phase II services

Final Design and Construction Services:
• Complete design & construction
• Post-construction tasks
  • Commissioning
  • Performance testing
  • O&M advisory services
  • Warranty
Procurement Process
The Procurement Process

- Texas Statute, Title 10, Chap. 2269 governs
- Request for Qualifications (RFQ)
- Establish Qualified Firms Short List
- Request for Proposals (RFP)
- Evaluation & Scoring
- Selection
- Award
Procurement & Contract conforms to TX Statute (Title 10, Chapter 2269)

• Contract Documents (RFQ, RFP, Design-Criteria Package, Design-Build Agreement)
• Technical-Legal Team Coordination:
  – Collaborated on RFQ, RFP, Contract
  – Conference calls
  – Face-to-face meetings
  – Obtained input from outside bond & insurance experts
  – Meetings & collaboration with Authorities
  – Review & comment by industry partners
Procurement Activities
RFQ Process & establishment of Shortlist of Qualified Candidates

- Pre-RFQ notification & Market Research
- RFQ issued 3/20/15
- Conducted pre-submittal meeting on 4/8/15
- Received SOQs on 4/21/15
- 3 Respondents; all determined qualified
Collaborative RFP Process

- RFP issued 4/30/15
- Conducted pre-proposal meeting 6/11/15
- 12 Addenda issued based on comments & questions received during public comment period
- Extensive opportunity for input on Design-Build Agreement
- Proposals Received 10/27/15
- Stipends offered (1/2 of 1%) of Awarded Contract Amount
Evaluation process

- Criteria & relative weighting provided in RFP
- Technical weighted higher than price
- Sealed price proposals evaluated after technical evaluation completed
- Thorough responsiveness review (Legal/MWBE/Risk Mgmt/Technical/Financial)
- Selection Panel evaluated & scored technical proposal, & then price proposals independently of support panels
Appropriation
Appropriation Plan

• **(Dec.)** Award Preliminary Services, Component 1  
  – Preliminary engineering & provide basis of design
• **(Future) Award** Preliminary Services, Component 2  
  – Continue engineering  
  – Early Work Package GMPs  
  – Provide Guaranteed Max. Price
• **(Future) Award** Early Work Package GMPs
• **(Future) Award** GMP for Final Design & Construction
Preliminary Services

- Basis of Design

Final Design & Construction Services

- GMP Proposal
  - Phase 1 (80 mgd) milestone
    - NLT 8/31/21
  - Phase 2 (240 mgd) milestone
    - NLT 6/30/24

- Component 1
  - Component 2
  - Early Work Packages
    - NEWPP Construction
      - Transition & Warranty Services
      - Final Acceptance

- Contract Award & NTP
- Amendment No. 1 Approval
- GMP Amendment Approval
- GMP Proposal Approval
Next Steps

- Consensus Vote by Authorities
- Presentation of RCA to City Council
- Award
- NTP for Preliminary Services, Component 1
- NTP + approx 10 months:
  - Negotiated agreement for Preliminary Services (Component 2) for Council Consideration
Northeast Water Purification Plant
Expansion

Q & A