CONTRACTOR OUTREACH MEETING
June 29, 2018
Presentation Agenda

• Introduction
• Overview of SWSP
• Segment Specifics
• Pump Stations
• Project Timeline
• Pre-Qualifications
• Contract Specifics
• Project Standards
• Additional Work Opportunities
• Questions and Feedback
Introduction

- What is the Surface Water Supply Project (SWSP)?
  - Joint effort between WHCRWA and NFBWA to provide surface water to their constituents
  - Goal is to comply with the Harris Galveston Subsidence District (HGSD) and Fort Bend Subsidence District (FBSD) regulations
  - HGSD/FBSD mandate conversion from groundwater to surface water at varying amounts at certain timeframes
  - SWSP is a series of multiple projects utilizing parallel construction
  - Project funded through bond sales via Texas Water Development Board (TWDB) and Open Market
OVERVIEW

- Water Transmission Line
  - Welded Steel Pipeline
  - Length: 35.2 Miles
    - 85% Open-Cut, 15% Tunnel
  - Pipe Size: 96” & 84”
  - 60% Design Estimate: $500M

- Pump Stations:
  - RePump: $60M
  - Central: $90M
  - Costs are from PER Stage
SWSP Transmission Line

Surface Water Supply Project
SEGMENT SPECIFICS
Construction Packaging

• The SWSP has been split into 6 major segments
  – Segment A
  – Segment B
  – Long Tunnel
  – Segment C
  – RePump Station (RPS)
  – Central Pump Station (CPS)
Alternative Packages

• Construction packages may be bid as alternates
• For example, Segment B breaks down as:
  – Part B1
  – Part B2 or
  – Part B1 & B2 together
• B3 is a separate contract
Construction Packaging

Surface Water Supply Project
Construction Packaging Alternatives
SEGMENT A

• Design Team: AECOM
  – Project Manager: Greg Crews, P.E.
  – Length: 11.2 Miles
  – Pipe Size: 96”
  – Est. Construction Cost: $195M (30-60% design)

• Split into 2 Construction Packages:
  – A1 & A2
  – A1 includes 1.1 mile continuous 144” tunnel
SEGMENT A

Legend
- Yellow: Segment A Package 1
- Green: Segment A Package 2
- Blue: Segment B Package 3 (Long Tunnel)

NEWPP Meter Station

Surface Water Supply Project
Segment A

Construction packaging for CIP, Segment 3, and Kinder Morgan Waterlines not shown for clarity purposes.

Opinion of Preliminary Construction Costs are 2016 Dollars
- Booster Pump Stations will be separate construction projects.
SEGMENT B

• Design Team: Black & Veatch
  – Project Manager: Mike McCure, P.E.
  – Length: 14.6 Miles
  – Pipe Size: 96”, 84” After RePump
  – Est. Construction Cost: $196M (60% design)

• Split into 3 Construction Packages:
  – B1, B2, & Long Tunnel (B3)
Long Tunnel (B3)

- Design Team: Black & Veatch
  - Project Manager: Mike McCure, P.E.
  - Located in an Exxon Corridor
  - Length: 4.3 Miles of continuous tunnel
  - Pipe Size: 96”
  - Tunnel Casing Size: 132” – 156”
  - Est. Construction Cost: $56M (10% design)
SEGMENT C

- Design Team: Freese and Nichols
  - Project Manager: Alan Hutson, P.E.
  - Length: 9.4 Miles
  - Pipe Size: 84”
  - Est. Construction Cost: $109M (60% design)

- Split into 2 Construction Packages:
  - C1 & C2
  - C1 contains additional 66”, 48”, & 36” WL
RePump Site Plan
RePump Station Overview

- Est. Construction Cost: $60M
- 160 MGD Pumping Capacity
- 5 Horizontal Split Case Pumps
  - Rated 40 MGD, 1750 HP with Variable Speed Drive
- 2 precast concrete GSTs @ 10 MG ea
- 15,000 SF precast concrete Pump Building
- 4,600 SF precast concrete Operations Building
- 5,000 SF Chemical Feed Building for chlorine bleach, Liquid Ammonia, and Caustic
Phase Rendering

SURFACE WATER SUPPLY PROJECT
Central Pump Station (CPS)
Central Site Plan

[Diagram of the Central Site Plan with various facilities and labels]
Central Pump Station Overview

- Est. Construction Cost: $90M
- 170 MGD Pumping Capacity
- 6 Horizontal Split Case Pumps
  - Rated 34 MGD, 1500 HP with Variable Speed Drive
- 2 precast concrete GSTs @ 15 MG ea.
- 16,000 SF precast concrete Pump Building
- 14,000 SF concrete masonry Operations Building
- 5000 SF Chemical Feed Building for Chlorine Bleach and Liquid Ammonia
Pump Layout

LEGEND:
- VALVE (PUMP CONTROL VALVE)
- BUTTERFLY VALVE
- EXPANSION JOINT
- MANOMETER FLANGE
- ANTI-OVERFLOW
- COMBINATION VALVE
- EXHAUST VALVE
- PUMP DISCHARGE
- PUMP SUCTION
- Suction Manifold

GENERAL NOTE:
Phase Rendering
Long Tunnel and Pump Station Specifics

• Planned outreach meeting in Fall for the Long Tunnel (B3) and Pump Stations (RPS & CPS)

• Current information is on website
PROJECT TIMELINE

• DESIGN is ongoing

• PRE-QUALIFICATION: Q4 2018

• BID ADVERTISEMENT: Q1-4 2019

• CONSTRUCTION START: Q3 2019 – Q2 2020
  – Expected Construction Duration: 2-3 years
  – Expected Project Completion: 2022
# PROJECT TIMELINE

## WHCRWA Schedule

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**Legend:**
- **Design**
- **Bid**
- **Construction**
PRE-QUALIFICATIONS
Procurement Process

• Prequalify Prime Contractors and Key Subs followed by competitive bid
• RFQs will go out Q4 2018
• Separate prequalifications for waterlines, the long tunnel project and the pump station projects
Prequalification Criteria

- Contractor Experience and Past Performance
- Experience of Key Personnel
- Safety Performance
- Financial Stability and Bonding
- MWSBE/ HUB Participation
- Local Firm Participation
- Technical criteria specific to project
Prequalification Criteria

Waterline Projects:
- Minimum of 72-inch welded steel waterline
- At least 5,000 linear feet of open-cut
- At least 5,000 linear feet of tunnel
- In congested urban areas & soft ground
- 120” Tunnel
- Experience with wheel cutter
Prequalification Criteria

Pump Station Projects:
• Minimum of 40 MGD Capacity
• 1000 HP pumps and motors with VFDs
• $40M Project

Long Tunnel Project Minimums:
• Experience with wheel cutter
• 120” Tunnel
• Soft ground
• At least 5,000 linear feet continuous tunnel
Contract Specifics

- Draft Agreement and General Conditions posted to website soon
- Both are based on the EJCDC documents
- No arbitration but there will be a mediation process
- Tunnel contract will have specific contract language:
  - Escrow bid documents, Geotechnical Baseline Reports, Dispute Review Boards, etc
Contract Specifics

• Consideration for partial payments for steel coils & major equipment prior to installation
• Contractor will provide estimated cashflow after NTP
• Payment of pay applications within 45 days or less
• Water line contracts will be unit price contracts
• Pump Station contracts will be lump sum
PROJECT STANDARDS
STANDARD DETAILS AND SPECS

- Electronic copies of the Details and Specs will be provided online at a later date
ADDITIONAL WORK OPPORTUNITIES
Future WHCRWA Projects

- **Segment 3**
  - 42” Pipe from RPS to NFBWA
- **Kinder Morgan Contracts:**
  - 84”, 66” Pipe from CPS to NFBWA
- **Ongoing CIP Contracts:**
  - 60”, 24”, 16”, 12” to various MUDs
- **Future CIP Contracts:**
  - WLs ranging from 12” to 36”, some 66”
Segment 3

- 42” Waterline through CPE Corridor
- Approx. 13.8 miles
- Connects SWSP to Bellaire Pump Station
- Scheduled to begin Design in Q3 2018
- Preliminary Cost Estimate: $65M
- Project to be split into multiple Contracts
Kinder Morgan

- 66” Waterline through Kinder Morgan Easement
- Approx. 7.2 miles
- Connects CPS to NFBWA
- Connects 8 additional MUD WPs to existing CIP System
- Scheduled to begin Design in Q4 2018
- Preliminary Cost Estimate: $45M
- Project to be split into multiple Contracts
Additional CIP PROJECTS

- Approximately 50 miles of waterlines to be installed
- Connects approx. 25 MUDs to surface water
- Work will be split into approx. 30 future contracts
- Historically, these have been in the range of $3 to $7M
QUESTIONS AND FEEDBACK

• All presentation materials will be provided on SWSP Website ”Doing Business”:
  – http://www.surfacewatersupplyproject.com/