AECOM Amendment 2

Thien Ng
Interim Public Works Director

December 13, 2017
- Public Works Department On-Call Engineering Services $250,000
  - Increase $250,000

- Existing Water Agreement $4,263,693
  - Increase $0

- Wastewater Treatment Improvements $8,916,165
  - Increase $5,785,297

- TOTAL: $13,429,858

AECOM Agreements to be Combined
Wastewater Treatment Plant Improvements

- **Final Design Services:**
  - Project management
  - Design
  - Computer aided drafting
  - Survey
  - Geotechnical engineering

- **Engineering services during construction**
  - Bidding
  - Construction engineering (**Not construction management**)
  - Start-up and project close-out
5-year capital improvements program (CIP) approved on May 23, 2017

Approved CIP of $78.9M

- **Wastewater Collection:**
  - Phases 1&2 Central Trunk manhole rehabilitation
  - Harbor Blvd, Pleasant Valley, Redwood Tributary manhole rehabilitation
  - Sewer improvements
  - Nuisance odor control chemical addition infrastructure
  - Lift station and wet well improvements

- **Wastewater Treatment:**
  - Headworks, primary clarifier, biotowers, activated sludge basin, pump station rehabilitation
  - Electrical building, manhole, emergency generator, supervisory control and data acquisition (SCADA) improvements
  - Belt filter presses, cogeneration, digester rehabilitation
  - Site piping, security improvements
Year 1 – 2 High Risk Facilities

- High Risk Facilities:
  - Cogeneration rebuild (2)
  - Primary clarifiers
  - Chemically enhanced primary treatment
  - Bio-towers rehabilitation
  - Belt filter press replacement (2)
  - Laboratory HVAC replacement

- Estimated construction cost $4.3 M
- Completed design effort
- Cogeneration rebuild: opened bids on December 5, 2017
- Remaining package in plan check
Year 1 – 2 High Risk Facilities

- Perkins Rd
- Hueneme Rd

- Bio-towers Rehabilitation
- Upgrade Primary Tanks
- Cogenerators Rebuild (2)
- HVAC Improvements
- Replace Belt Presses (2)
- CEPT Chemical Feed
Year 3 – 5 Reliability

• Reliability improvements:
  ✔ Electrical building
  ✔ Motor control centers (MCC’s)
  ✔ Emergency generator
  ✔ Headworks improvements
  ✔ Aeration basin air supply piping (Moved from Year 6)
  ✔ Digester rehabilitation
  ✔ Pump station rehabilitation
  ✔ Supervisory and Data Acquisition (SCADA) improvements
  ✔ Site piping improvements
  ✔ Security improvements
  ✔ New storage building

• Estimated construction cost of $36.9M
Years 3 to 5 Projects

- Site Wide Improvements
  - SCADA
  - Site Piping
  - Site Security

- New Electrical Building
- New Generator
- Inter-Stage Pump Station
- Effluent Pump Station
- New Storage Building
- Site Piping
- Headworks
- MCC Replacements
- Aeration
- Digester
- Site Security
- Site Wiring
### Final Design Fees

<table>
<thead>
<tr>
<th>Service</th>
<th>Typical Professional Fee * (% construction cost)</th>
<th>Final Design Fee (% construction cost**)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>2 – 5% ($740k - $1.8M)</td>
<td>0.8% (~$300k)</td>
</tr>
<tr>
<td>Engineering and Design</td>
<td>5 – 9% ($1.8M - $3.3M)</td>
<td>8.1% (~$3.0M)</td>
</tr>
<tr>
<td>Geotechnical</td>
<td>0 – 3% ($0 - $1.1M)</td>
<td>0.2% (~$75k)</td>
</tr>
<tr>
<td>Survey</td>
<td>0 – 3% ($0 - $1.1M)</td>
<td>0.1% (~$36k)</td>
</tr>
<tr>
<td>Drafting</td>
<td>1 – 4% ($370k - $1.4M)</td>
<td>3.3% (~$1.2M)</td>
</tr>
</tbody>
</table>

**Total Design Fee - $4.61M***

* From Utility Ratepayers Advisory Panel
** Estimated Construction Cost: See Slide 6
*** The Utilities Task Force on October 5, 2017, discussed and unanimously recommended to proceed to City Council for consideration.
## Engineering Services During Construction Fee

<table>
<thead>
<tr>
<th>Service</th>
<th>Typical Professional Fee (% construction cost)</th>
<th>Engineering Services Fee (% construction cost)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidding Services</td>
<td>0 – 1% ($0 - $370k)</td>
<td>0.3% (~$100k)</td>
</tr>
<tr>
<td>Construction Engineering</td>
<td>0 – 3% ($0 - $1.1M)</td>
<td>2.5% (~$900k)</td>
</tr>
<tr>
<td>Start-up and project closeout</td>
<td>0 – 1% ($0 - $370k)</td>
<td>0.5% (~$175k)</td>
</tr>
</tbody>
</table>

Total Post Design Fee - $1.175M
Total Fee - $5.785M
<table>
<thead>
<tr>
<th>Task</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRELIMINARY INVESTIGATIONS</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>FINAL DESIGN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BID PHASE ASSISTANCE</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>ENGINEERING SERVICES DURING CONSTRUCTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(HIGH RISK AND RELIABILITY PROJECTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STARTUP, COMMISSIONING AND TRAINING SERVICES</td>
<td></td>
<td></td>
<td>Q1</td>
</tr>
<tr>
<td>(HIGH RISK PROJECTS ONLY)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Questions