Construction Funding for Luce Bayou Inter-basin Transfer Project (LBITP)

Houston City Council
Committee for Transportation, Technology, & Infrastructure
March 22, 2012
Luce Bayou Inter-basin Transfer Project (LBITP)

Highlights

► Convey existing COH water supply from the Trinity River Basin to Lake Houston

► Key regional water supply strategy in the State’s Region H Water Plan since 2001

► Partnered effort of City with Coastal Water Authority (CWA)

► Estimated Project Cost: $297 million
Regional Importance

- Over 3600 square miles
- Ultimately, 9+ million people by 2060 (2011 State Water Plan)
- Right sizing and better connecting raw water delivery with treatment capacity for water supply to region
Project Description

- Capacity to convey 450,000 acre feet per year (400 MGD average daily flow) from the Trinity River to Lake Houston
  - New 500 MGD pump station located on 90-acre parcel
  - Approximately 3.6 miles of pipeline
  - Settling basin and Maintenance Facility
  - Approximately 23 miles of new canal
  - Outfall structure at Lake Houston
Meeting State Mandates

City of Houston (Area 3) and Harris County WA’s must convert to:
- 30% surface water by 2010
- 70% surface water by 2020
- 80% surface water by 2030

Fort Bend County must convert to:
- 30% surface water by 2014
- 60% surface water by 2025

Lone Star Groundwater Conservation District regulates for Montgomery County
 Demand for the Project

**Surface Water Demand (MGD)**

- **Year**: 2010, 2020, 2030, 2040
- **Total COH Water Rights**

**Legend**
- City of Houston
- Regional Water Authorities
Projected Demand vs. Supply in Lake Houston

Lake Houston Supply After LBTP

Lake Houston Supply Before LBTP

City of Houston Lake Houston Water Demand

Water Authorities Lake Houston Water Demand
Progress to Date

- May 2005-COH requested CWA proceed with the initial development
- Apr 2006-Project evaluation initiated
- Jan 2009-COH/CWA agreement for acquisition, design and construction
- Jan 2011-Preliminary Engineering Report complete
- Currently in progress (complete Dec 2012):
  - Right of way acquisition
  - Environmental Impact Statement in progress by USACE, Galveston District
Project Schedule

- Receive USACE permits by 1st Qtr 2013
- Begin final design March 2013
- Complete design December 2015
- Start construction June 2016
- Complete construction by 7/1/2019
Project Funding

Environmental Studies/Design Engineering:
- Type: Texas Water Development Board (TWDB) Water Infrastructure Fund Loans
  - $33m

Real Estate Acquisition
- Type: SEALS/Direct
  - $20m

Construction
- Type: State Participation Program
  - $244m
State Participation Program

- Enables TWDB to assume a temporary ownership interest in a regional project when the local sponsors are unable to assume debt for the optimally sized facility.
- Cost of the funding is repaid to the TWDB based upon purchase payments on a deferred timetable.
- LBTP recognized as a participation project that creates a new supply of water.
- TWDB funds up to 80% of costs/20% by sponsors.
- At least 20% of the total capacity of the proposed project will serve existing needs.
## Financial Impact To City’s CIP and Utility Infrastructure

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>Later years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>With State</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Funding</td>
<td>9.35</td>
<td>23.80</td>
<td>22.10</td>
<td>110.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Without State</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>$46.75</td>
<td>$119.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All figures in $ Million.*
Prior Council actions—

• Approval of COH-CWA agreement
• Approval of COH-RWA agreements

Upcoming action—Motion for Council support of CWA/Houston application (Apr 4)
Construction Funding for Luce Bayou Inter-basin Transfer Project (LBITP)