Lower Brazos River Flood Protection Planning Study

Presented by
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Water Services Manager

Meeting Date: October 30, 2017
Study Background

• Why?
  – High growth area with outdated and inconsistent Brazos River floodplain information

• Who?
  – Texas Water Development Board, lower basin entities, BRA, & Halff Associates, Inc.

• What?
  – New models
  – New estimates of how much water, how fast, and how high
  – New maps
  – Alternatives to reduce/mitigate future damages
Proposed Scope Items to Incorporate Hurricane Harvey

- Data Collection (Photos, high water marks, gage data, etc.)
- Extend the period of record analysis (update statistics used to estimate flood level return frequency)
- Process Harvey rainfall data and calibrate the hydrologic and hydraulic models to this event
- Refine hydraulic model to address overflow issues in several areas (Oyster Creek, Ditch H, Bessie’s Creek, and Jones’ Creek)
- Update flood level frequency models based on revised calibrations with Harvey
- Update economics (damages) with inclusion of Harvey
- Document in the final report
# Study Funding

<table>
<thead>
<tr>
<th>Study Phase</th>
<th>TWDB Grants</th>
<th>Local Contributions</th>
<th>BRA Cash</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Phases I &amp; II</td>
<td>$790,017.50</td>
<td>$643,316.50</td>
<td>$151,166.00</td>
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<tr>
<td>Proposed to Add Hurricane Harvey</td>
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<td>$40,000.00</td>
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<tr>
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<td>$790,017.50</td>
<td>$683,316.50</td>
<td>$221,166.00</td>
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</tbody>
</table>

*Local area financial participants include Brazoria County, Waller County, Velasco Drainage District, Pecan Grove MUD, Lake Jackson, Sandy Point, Washington County, and Sugar Land*
“BE IT RESOLVED that the Board of Directors of the Brazos River Authority hereby authorizes the General Manager/CEO to contribute up to $70,000 to expand the scope of work of the Lower Brazos River Flood Protection Planning Study to incorporate data and information from Hurricane Harvey into the ongoing study effort; and
BE IT FURTHER RESOLVED that the General Manager/CEO is authorized to negotiate and execute any required amendments to contracts or inter-local agreements with the Texas Water Development Board, Halff Associates, Inc., or local area financial participants that are necessary to facilitate the expanded scope of work.”