Welcome

Presented by
Phil Ford
General Manager/CEO
Water Supply

Presented by
Brad Brunett
Water Services Manager
Drought Monitor & Reservoir Status

Reservoir Percent Full
- Above 100
- 95-100
- 85-95
- 75-85
- 50-75
- 30-50
- Below 30

Drought Intensity
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

* Updated weekly by NDMC, USDA, NOAA. ** Brazos River Authority water supply reservoirs only.
Departure from Normal Rainfall

October 1, 2015 – July 8, 2016

October 1, 2016 – June 14, 2017
Drought Study Required by Sys Ops Permit

Requirement and Questions from the Permit:

In recognition of current drought conditions, BRA shall perform a detailed evaluation of whether the recently-ended drought:

(1) represents a drought worse than the drought of record of the 1950s in the Brazos River Basin; and
(2) decreases the amount of water available for appropriation under this permit.
System Operation Permit and Water Management Plan

• Results of Drought Study – Summary
  – 2011-2015 Drought
    • Worse for Upper Basin Only
    • 1950’s for entire Basin
  – Availability of Water under System Operation Permit
    • Unchanged from approved Permit
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for June 15 - September 30, 2017
Released June 15, 2017

Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short-lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

http://go.usa.gov/3eZ73
2016 Annual Water Use & Reservoir Accounting

Summary now Available on BRA Website

http://www.brazos.org/Portals/0/drought/WaterUseSummary-2016.pdf
Proposed Listing of Freshwater Mussels as Endangered in Brazos River Basin

• Three species in basin candidates for Endangered Species Act (ESA) protection
  – Final Decision 2018
    • Texas fawnsfoot
    • False spike
  – Consideration 2020
    • Smooth pimpleback
**Freshwater Mussels v. Zebra Mussels**

- **Freshwater Mussels**
  - Native
  - Rivers and lakes
  - Filter feeders
  - Soft Substrate
  - Riverine species dependent on fish

- **Zebra Mussels**
  - Non-native
  - Lakes, generally
  - Aggressive breeders
  - No know predators
  - Hard substrates
Recently Documented Candidate-Listed Mussel Populations in the Brazos River Basin
Why do we Care?

• Since 1973, the ESA has proven to be one of the nation’s strongest conservation laws
  – Has been widely upheld in the court system
  – Never substantially defeated

• ESA can and has affected state-based water rights and regulations
  – Can limit the traditional exercise of established water rights
  – Restrict or modify new water projects
  – Any water use that results in the direct or incidental take or harm of listed species falls within the ESA’s reach
What’s Being Done?

• BRA has been working issue for past year
  – Stream Surveys
  – Customer interaction
  – Comptroller Work Group

• Comptroller’s Freshwater Mussel Stakeholder Work Group
  – Meghan.Hope@cpa.texas.gov

• USFWS - Species Status Assessment Lead
  – gary_pandolfi@fws.gov
Capital Projects Overview

Presented by Basin Regional Manager
- Sterling C Roberts – 39 Years Old
- Tainter Gate Rehab
- Hoist System
- Low Flow Facility Improvements
~$4M in Projected FY 18 Expenditures
- CAASLE Project
- Hearth & Bank Project
- COC Access Platforms
- Spillway Pump
~$2.7M in Projected FY 18 Expenditures
- Trolley Replacement Project
- Low Flow Project
- Reinforced Concrete Project
Financial Overview

Presented by
David Thompson
Chief Financial Officer
FY2018 Proposed Revenues
$62.7M

- Raw Water Sales, $33.8
- Lake Operations, $0.5
- EWCRWS, $2.2
- Sugar Land, $2.6
- Rate Stabilization Reserves, $2.8
- Cost Reimbursable, $18.4
- Grants, $1.2
- Interest, $0.5
- Misc., $0.1
- Management Fees, $0.6
- Rate Stabilization Reserves, $2.8
- Raw Water Sales, $33.8
FY2018
Proposed Operating Expenses
$62.0M

- Water Supply System - Debt Service, $5.1
- Water Supply System - Operating Programs, $3.1
- Cost Reimbursable, $18.4
- Water Supply System, $35.4
FY2018
All Projects by Type
$22.3M

- New Water, $9.0
- Infrastructure Maintenance, $12.9
- New Infrastructure, $0.4
## FY2018 Capital Improvement Projects

*(in thousands)*

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Total Project Cost</th>
<th>FY2018 Projected Expenditures</th>
<th>Est. Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allens Creek Reservoir</td>
<td>$92,422</td>
<td>$5,749</td>
<td>2022+</td>
</tr>
<tr>
<td>Trinity Groundwater</td>
<td>22,860</td>
<td>3,255</td>
<td>2022+</td>
</tr>
<tr>
<td>DeCordova Bend Dam Improvements</td>
<td>8,783</td>
<td>2,782</td>
<td>2019</td>
</tr>
<tr>
<td>Morris Sheppard Dam Improvements</td>
<td>10,416</td>
<td>4,050</td>
<td>2019</td>
</tr>
<tr>
<td>Sterling Robertson Dam Improvements</td>
<td>27,471</td>
<td>4,415</td>
<td>2022+</td>
</tr>
<tr>
<td>Road Repairs at Dams</td>
<td>2,476</td>
<td>1,400</td>
<td>2021</td>
</tr>
<tr>
<td>Other</td>
<td>37,678</td>
<td>655</td>
<td>2022+</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$22,306</strong></td>
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</table>
### FY2018 Operating Programs

( in thousands )

<table>
<thead>
<tr>
<th>Project Name</th>
<th>FY2018 Projected Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps of Engineers Pool Rise Feasibility</td>
<td>$119</td>
</tr>
<tr>
<td>HB 1437 No Net Loss *</td>
<td>200</td>
</tr>
<tr>
<td>Duck Creek Aquatic Life Assessment *</td>
<td>14</td>
</tr>
<tr>
<td>Environmental Laboratory Assessment</td>
<td>200</td>
</tr>
<tr>
<td>IT Polycom Replacements</td>
<td>160</td>
</tr>
<tr>
<td>LB Floodplain Protection Study Phase 1 &amp; 2 *</td>
<td>189</td>
</tr>
<tr>
<td>Lake Somerville Augmentation Study</td>
<td>80</td>
</tr>
<tr>
<td>PK Dam Fiber Optic Cable Replacement</td>
<td>65</td>
</tr>
<tr>
<td>PK Natural Resource Inventory Study</td>
<td>50</td>
</tr>
<tr>
<td>Williamson County Sludge Disposal Study *</td>
<td>173</td>
</tr>
<tr>
<td>PK Recreational Maintenance</td>
<td>145</td>
</tr>
<tr>
<td>Off Channel Reservoirs</td>
<td>250</td>
</tr>
<tr>
<td>Potential Future Water Management Strategies</td>
<td>500</td>
</tr>
<tr>
<td>Freshwater Mussel Rapid Risk Assessment</td>
<td>550</td>
</tr>
<tr>
<td>Enterprise Financial Software</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>$3,095</td>
</tr>
<tr>
<td>Less Grant/Stakeholder Funding *</td>
<td>(395)</td>
</tr>
<tr>
<td>Net BRA Expense</td>
<td>$2,700</td>
</tr>
</tbody>
</table>
FY2018 Long Term Raw Water Sales
626,162 AF
System Rate Calculation
( in thousands )

<table>
<thead>
<tr>
<th>FY 2017 Budget</th>
<th>FY 2018 Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Supply Expenses</td>
<td></td>
</tr>
<tr>
<td>Water Supply O&amp;M Expenditures</td>
<td>$ 32,078</td>
</tr>
<tr>
<td>Water Supply Debt Service (subject to coverage)</td>
<td>2,537</td>
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<tr>
<td>Water Supply Debt Service (not subject to coverage)</td>
<td>2,591</td>
</tr>
<tr>
<td>Operating Program Expenditures</td>
<td>1,686</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td><strong>38,892</strong></td>
</tr>
<tr>
<td>Less:</td>
<td></td>
</tr>
<tr>
<td>Non-System Water Revenues</td>
<td>7,523</td>
</tr>
<tr>
<td>Other Water Supply Revenues</td>
<td>6,364</td>
</tr>
<tr>
<td><strong>Total Non-System Revenues</strong></td>
<td><strong>13,887</strong></td>
</tr>
<tr>
<td>Plus:</td>
<td></td>
</tr>
<tr>
<td>Debt Coverage Requirement (1.3 ratio)</td>
<td>761</td>
</tr>
<tr>
<td>Rate Stabilization Fund</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Total Coverage and Reserve</strong></td>
<td><strong>1,761</strong></td>
</tr>
<tr>
<td><strong>System Water Revenue Requirement</strong></td>
<td><strong>$ 26,766</strong></td>
</tr>
<tr>
<td><strong>Total System Water Billing Units (acre feet)</strong></td>
<td><strong>371,422</strong></td>
</tr>
<tr>
<td><strong>System Rate (System Rate Revenue Requirement divided by the number of System Rate Units)</strong></td>
<td><strong>$ 72.00</strong></td>
</tr>
</tbody>
</table>
## Long Term Billing Units & Average Price

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th>Avg Price</th>
<th>%</th>
<th>Units</th>
<th>Avg Price</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Rate</strong></td>
<td>371,422</td>
<td>$72.00</td>
<td>58%</td>
<td>364,572</td>
<td>$74.00</td>
<td>59%</td>
</tr>
<tr>
<td><strong>Agricultural</strong></td>
<td>10,285</td>
<td>$50.40</td>
<td>2%</td>
<td>10,285</td>
<td>$51.80</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Two-Tier</strong></td>
<td>98,999</td>
<td>$17.25</td>
<td>16%</td>
<td>98,999</td>
<td>$17.37</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Other Fixed Price</strong></td>
<td>33,778</td>
<td>$18.96</td>
<td>5%</td>
<td>33,778</td>
<td>$19.02</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>97,000</td>
<td>$18.58</td>
<td>15%</td>
<td>97,000</td>
<td>$18.84</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Colorado Basin</strong></td>
<td>25,000</td>
<td>$79.72</td>
<td>4%</td>
<td>21,528</td>
<td>$77.95</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>636,484</td>
<td></td>
<td>100%</td>
<td>626,162</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
System Rate History/Forecast

% Increase  5.0%  5.9%  1.4%  2.1%  2.8%  3.4%  3.3%  3.2%  3.1%  3.6%
<table>
<thead>
<tr>
<th>Year</th>
<th>System Rate</th>
<th>System Water</th>
<th>Agricultural Water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY2018 Proposed</td>
<td>$74.00/ac ft</td>
<td>$51.80/ac ft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(22.7¢ /1,000 gals)</td>
<td>(15.9¢ /1,000 gals)</td>
</tr>
<tr>
<td></td>
<td>FY2017 Current</td>
<td>$72.00/ac ft</td>
<td>$50.40/ac ft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(22.1¢ /1,000 gals)</td>
<td>(15.5¢ /1,000 gals)</td>
</tr>
<tr>
<td><strong>Two-Tier</strong></td>
<td>FY2018 Proposed</td>
<td>$13.52/ac ft</td>
<td>$27.04/ac ft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.1¢ /1,000 gals)</td>
<td>(8.3¢ /1,000 gals)</td>
</tr>
<tr>
<td></td>
<td>FY2017 Current</td>
<td>$13.43/ac ft</td>
<td>$26.86/ac ft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.1¢ /1,000 gals)</td>
<td>(8.2¢ /1,000 gals)</td>
</tr>
</tbody>
</table>
Long-term Water Sales

• System Operation Permit Approved and Drought Study Complete
• District Court challenge in process
• Will be evaluating new long-term sales in 2018
  – Modeling analysis
  – BRA Water sale policy and procedures
  – State Water Plan
  – BRA long-term water request list
• Potential to enter new contracts late 2018 – 2019
Interruptible Water Sales

- Updates to Interruptible Water Sale Procedure
  - Multi-year contracts discontinued
  - Priority to requests of 1,000 AF and less
  - Application deadline moved up to August 31
  - Will establish firm deadline for payment and executing contracts
- Board to consider 2018 Interruptible Water in October
Questions and Answers