WATER CYCLE

partners • drinking water operations • wastewater operations

source • purification • distribution • treatment • bayou reuse

today’s topic
WATER SYSTEM

Available Supply

1.4 B gallons per day

1.4 B

Customers

Available Supply

Sources

1.9 M Regional

14% Ground

Trinity River & San Jacinto River
wells in Harris, Fort Bend & Montgomery Counties

86% Surface

2.3 M City

Trinity River

San Jacinto River

14% Ground

86% Surface

Customers Sources
PARTNERS

Trinity River Authority
Coastal Water Authority
San Jacinto River Authority
Brazos River Authority
Harris Galveston Subsidence District
Lone Star Groundwater Conservation District
Fort Bend Subsidence District
SURFACE WATER SUPPLY

1.2 billion gallons per day
3 river basins
4 reservoirs
  - Lake Livingston
  - Lake Houston
  - Lake Conroe
  - Allens Creek (planned)
TRINITY RIVER AUTHORITY

operates & maintains:

Lake Livingston Dam
constructed 1969
share 70% Houston
city water 806 million gallons per day

Salt Water Barrier
COASTAL WATER AUTHORITY

operates & maintains:

Lake Houston Dam
constructed 1953
share 100% Houston
city water 150 million gallons per day

Trinity River Conveyance System
Luce Bayou Interbasin Transfer Project
SAN JACINTO RIVER AUTHORITY

operates & maintains:

Lake Conroe
constructed 1973
city water 66% Houston
capacity 59.5 million gallons per day
BRAZOS RIVER AUTHORITY

Allens Creek (planned) constructed must be started by 2025 share 70% Houston city water 91 million gallons per day

Permitting and design work imminent
# Groundwater Supply

<table>
<thead>
<tr>
<th>Partner</th>
<th>Max Usage</th>
<th>Houston Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris Galveston Subsidence District</td>
<td>Area 1 10%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Area 2 20%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Area 3 70%*</td>
<td>45.5%**</td>
</tr>
<tr>
<td>Fort Bend Subsidence District</td>
<td>500 M gallons</td>
<td>179.8 M gallons</td>
</tr>
<tr>
<td>Lone Star Groundwater Conservation District</td>
<td>501 M gallons</td>
<td>208 M gallons</td>
</tr>
</tbody>
</table>

*through 2025; in 2025, reduced to 40%
**includes GRP Participant wells; Houston-only wells usage is 37%
PARTNERS

Trinity River Authority
Coastal Water Authority
San Jacinto River Authority
Brazos River Authority
Harris Galveston Subsidence District
Lone Star Groundwater Conservation District
Fort Bend Subsidence District
## UPCOMING COUNCIL ACTIONS

<table>
<thead>
<tr>
<th>PARTNER</th>
<th>PURPOSE</th>
<th>FUNDING</th>
<th>TIMING</th>
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<tbody>
<tr>
<td>Trinity River Authority</td>
<td>appropriation of funds for Livingston Dam Gate Rehabilitation Project</td>
<td>$8,621,528</td>
<td>winter</td>
</tr>
<tr>
<td></td>
<td>approval of Lake Livingston 2020 operation &amp; maintenance budget*</td>
<td>$4,763,498</td>
<td>spring</td>
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<tr>
<td>Coastal Water Authority</td>
<td>approval of Lake Houston Dam Spillway Improvements Project interlocal agreement &amp; appropriation of funds**</td>
<td>$4,375,199</td>
<td>winter</td>
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<tr>
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<td>approval of Lake Houston Dam 2020 operation &amp; maintenance budget*</td>
<td>$5,196,900</td>
<td>spring</td>
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<td></td>
<td>approval of Trinity River Conveyance System 2020 operation &amp; maintenance budget*</td>
<td>$21,594,600</td>
<td>spring</td>
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<tr>
<td></td>
<td>approval of Luce Bayou Interbasin Transfer Project 2020 operation &amp; maintenance budget*</td>
<td>$2,479,000</td>
<td>spring</td>
</tr>
</tbody>
</table>

* appropriation through adoption of City of Houston annual budget
** reimbursable through grant funds excluding City/Harris County Flood Control District local match
UPCOMING COUNCIL ACTIONS

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<tr>
<td>San Jacinto River Authority</td>
<td>approval of cost sharing &amp; operation &amp; maintenance agreement</td>
<td>N/A</td>
<td>summer</td>
</tr>
<tr>
<td></td>
<td>approval of Lake Conroe operation &amp; maintenance budget*</td>
<td>$5,690,852</td>
<td>fall</td>
</tr>
<tr>
<td>Harris Galveston Subsidence District</td>
<td>appropriation of funds for 2020 groundwater well permit fees</td>
<td>$1,032,000</td>
<td>winter</td>
</tr>
</tbody>
</table>

* appropriation through adoption of City of Houston annual budget
thank you!