Water Delivery - Flow Impact Fees

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Water Delivery Flow Overview

• Evolution of Water System in San Antonio
• Overview of Current Water System
• Water Impact Fees Service Area
• Water Delivery - Flow
  – System Capacities 2014 -2023
  – Eligible CIP Costs
  – Future Water Infrastructure 2014 – 2023
  – Existing Infrastructure (Equity)
  – Projected Added Cost for 10 Years of Growth
  – Impact Fee Allocation
Evolution of San Antonio Water System

Early Years

- The Blue Hole, + 11,000
- Espada Aqueduct, 1745
- Presidio de Béxar, 1764
- Brackenridge Pump House #1, 1877
- Brackenridge Pump House #2, 1885
- The Borglum House
- Market Pump Station, 1908
Evolution of San Antonio Water System

Later Years

- Basin Pump Station, 1959
- Production Control Center, 1968
- Micron Pump Station, 2003
- Aquifer Storage and Recovery, 2004
- Medina River Plant, 2012
- Desalination, 2016

- Twin Oaks
- Ultrafiltration (Built by UWS in 1999)
- Reverse Osmosis

Water Delivery - Flow
Types of Impact Fees

- Water Flow
- Water System Development
- Water Supply
- Wastewater
- Collection
- Wastewater Treatment

Water Delivery - Flow
Current Water System

• 23 “pressure zones”
  – 7,600 miles of mains
  – 54 (33 DSP) Primary
  – 39 (18 DSP) Secondary
  – 40 (12 DSP) Booster
  – 114 Ground Storage Tanks
  – 37 Elevated Tanks
• Distributed production facilities
• Complex operations
2010-2012 Water Service Area Change
SAWS/Bexar-Met Impact Fees Consolidation

Integration Impacts on System

– Offsets applying TCEQ criteria for 31,560 connections
  • 27.3 MGD of 401.3 MGD excess well capacity
  • 90.9 MGD of 72.6 MGD excess service pumps capacity
  • 6.3 MG of 89.7 MG excess total storage capacity
  • 3.2 MG of 18.3 MG excess elevated storage capacity

– Integrated areas have minimal immediate impact
– Stand-alone areas have no immediate impact
– Integration eliminated CIP should reduce fees
Water Delivery Eligible Capacities and Flows

Flow – Distribution Mains

Average day demand is assumed to be 127 gpcd and peaking factor is 2.81.
Water Delivery Capacities and Flows

*Water Flow – Distribution Mains*

Study Period Growth Allocation = 67 mgd / 667 mgd = 10.0% (Existing)
Study Period Growth Allocation = 17 mgd / 93 mgd = 18.3% (Future)
## Future Water Infrastructure 2014 – 2023

### Water Distribution – CIP Values By Pressure Zone

<table>
<thead>
<tr>
<th>Pressure Zone</th>
<th>Number of Projects</th>
<th>Value of Projects ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5</td>
<td>$2.69</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>$14.66</td>
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<tr>
<td>4</td>
<td>30</td>
<td>$21.15</td>
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<tr>
<td>5</td>
<td>7</td>
<td>$0.72</td>
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<tr>
<td>6</td>
<td>11</td>
<td>$8.80</td>
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<tr>
<td>7</td>
<td>45</td>
<td>$35.91</td>
</tr>
<tr>
<td>8</td>
<td>30</td>
<td>$17.24</td>
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</table>

<table>
<thead>
<tr>
<th>Pressure Zone</th>
<th>Number of Projects</th>
<th>Value of Projects ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>16</td>
<td>$17.35</td>
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<tr>
<td>10</td>
<td>9</td>
<td>$16.58</td>
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<tr>
<td>11</td>
<td>35</td>
<td>$18.78</td>
</tr>
<tr>
<td>12</td>
<td>23</td>
<td>$11.65</td>
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<tr>
<td>14</td>
<td>4</td>
<td>$6.05</td>
</tr>
<tr>
<td>DSP</td>
<td>30</td>
<td>$29.07</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>254</strong></td>
<td><strong>$200.7</strong></td>
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</tbody>
</table>
## Future Water Infrastructure 2014 – 2023

### Water Distribution – Highest Value Projects

<table>
<thead>
<tr>
<th>Pressure Zone</th>
<th>Project Description</th>
<th>Project Value ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>PZ7-02 - Along Wurzbach and Bandera from Wurzbach PS to Eckhert Rd (48-inch)</td>
<td>$ 8.55</td>
</tr>
<tr>
<td>4</td>
<td>PZ4-02 - Along Old Pearsall Rd, Nelson Rd and Loop 1604 from Pvt Rd to Hwy 90</td>
<td>$ 5.12</td>
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<tr>
<td>10</td>
<td>PZ10-04 - Along PLs looped around Wilderness Oak Tank (16 Inch Dia 27388 LF)</td>
<td>$ 4.84</td>
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<tr>
<td>9</td>
<td>PZ9-03 - Along PL from Classen Ranch to Batcave Tank (24-inch)</td>
<td>$ 4.27</td>
</tr>
<tr>
<td>9</td>
<td>PZ9-05 - PLs through PZ 9 open area from Bulverde Rd to Encino Rio (24 Inch Dia 15296 LF)</td>
<td>$ 4.01</td>
</tr>
<tr>
<td>3</td>
<td>PZ3-19 - Along FM1356 from S Foster to the end of the CCN</td>
<td>$ 3.28</td>
</tr>
<tr>
<td>7</td>
<td>PZ7-26 - Micron to Anderson tank</td>
<td>$ 3.28</td>
</tr>
<tr>
<td>DSP</td>
<td>GOVT - Potranco Rd: Loop 1604 to HWY 211 - Bexar County is widening Potranco from 1604 to HWY 211 from 2 lanes to 5 lanes with associated drainage improvements.</td>
<td>$ 3.24</td>
</tr>
</tbody>
</table>
## 2014 – 2023 Eligible CIP Costs

*Water Flow – Distribution Mains*

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Existing Capacity</th>
<th>New CIP Capacity</th>
<th>Total Capacity</th>
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<tbody>
<tr>
<td>ALL</td>
<td>($ mil)</td>
<td>($ mil)</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>$631.5</td>
<td>$63.1</td>
<td>TBD</td>
</tr>
</tbody>
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QUESTIONS?