UPDATE ON MARY’S CREEK WATER RECLAMATION FACILITY PERMIT

City Council Worksession
May 17, 2022
MARY'S CREEK PERMIT

Presentation Content

• Project background and recent events
• Settlement Agreement terms
• Benefits to Fort Worth Water customers
• Next steps
Master Plans & Studies recommend WRF in far west Fort Worth

CAC evaluates potential sites

Purchase of 100-acre site for WRF ($4.9M)

TCEQ affirms permit following public comment

TCEQ issues draft permit (3/16)

TCEQ discharge permit application submitted (3/26)

TCEQ refers permit to SOAH for contested hearing (11/3)

SOAH preliminary hearing - admits TRWD as an affected party (2/28)

Mediation with TCEQ & parties related to indirect reuse
TRWD
• Permit, design, and construct indirect reuse project on Mary’s Creek consisting of an impoundment, intake, pump station and pipeline to connect to existing water supply system where it will be blended with water from other TRWD lakes

CITY
• Request TCEQ to include a 6 mg/L nitrogen limit in permit
• Limit discharge of MCWRF to 3 MGD during dry weather periods, prior to operation of indirect reuse project
• If indirect reuse project is not feasible, amend MCWRF permit to reduce phosphorus limit to 0.1 mg/L
Flowrate: 10MGD - Interim Phase; 15MGD - Final Phase
Term - 5 years
Reporting - Monthly
Treatment Process: Membrane bioreactor with nutrient removal and UV disinfection

<table>
<thead>
<tr>
<th>Parameter</th>
<th>30 Day Average</th>
<th>Monitoring Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBOD</td>
<td>5 mg/l</td>
<td>One/day</td>
</tr>
<tr>
<td>TSS</td>
<td>5 mg/l</td>
<td>One/day</td>
</tr>
<tr>
<td>Ammonia (NH3-N)</td>
<td>2 mg/l</td>
<td>One/day</td>
</tr>
<tr>
<td>Total P</td>
<td>0.2 mg/l</td>
<td>One/day</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>6.0 mg/l (min)</td>
<td>One/day</td>
</tr>
<tr>
<td>E-Coli</td>
<td>126 CF/100 ml</td>
<td>One/day</td>
</tr>
<tr>
<td>pH</td>
<td>6 (min)</td>
<td>Daily</td>
</tr>
</tbody>
</table>

*Settlement Agreement - adds a 6mg/L total nitrogen requirement to permit*
• Allows Fort Worth to begin engineering design with goal to construct facility prior to existing wastewater collection lines running out of capacity.
• Achieves compliance with no significant change in plant design from TCEQ permit submission
• Positions City to provide reclaimed water to fast growing areas of West Fort Worth – a State Water Plan strategy
• Allows TRWD to initiate a low-cost indirect reuse project in Fort Worth
NEXT STEPS

- Issue a Request for Proposals for engineering design of MCWRF
- Design lift station and force main to pump downstream wastewater to MCWRF
- Submit TCEQ reclaimed water authorization for proposed MCWRF
- Submit applications for grant and low interest loan to provide funding for MCWRF and direct reclaimed water infrastructure
- Proposed design schedule - Fall 2022 to Fall 2024 ($14M)
- Proposed construction schedule - Spring 2025 to Summer 2028 ($130M)
QUESTIONS