Agenda Item No. II-9

City of Wichita
City Council Meeting
December 6, 2016

TO: Mayor and City Council
SUBJECT: Four Mile Creek Water Quality Reclamation Facility Improvements (District II)
INITIATED BY: Department of Public Works & Utilities
AGENDA: Consent

Recommendation: Approve the revised budget and adopt the amending resolution.

Background: The Four Mile Creek (FMC) Water Quality Reclamation Facility (WQRF) is designed to currently treat 3.0 million gallons per day (MGD) of wastewater, collected from a basin in east Wichita that continues to develop and expand. This facility and supporting collection system were acquired by the City of Wichita from Sedgwick County in April of 2001. Previous upgrades to the facility expanded the plant capacity (from 1.5 MGD to 3.0 MGD) and added biological nutrient removal processes creating an effluent that is low in phosphorous and nitrogen. Continued increases in regulatory requirements and projected growth in the basin require additional improvements.

On June 3, 2014, the City Council approved a design consultant and initiation of the design concept at a cost of $239,000. The design concept was later approved on September 1, 2015, and final design work was initiated at a cost of $4,785,840. The total design fee was $5,024,840.

Analysis: The concept development phase estimated that the current design capacity of 3.0 MGD for the Four Mile Creek Plant will be exceeded by mid-2017, necessitating a plant expansion to 6.0 MGD, which is expected to have sufficient capacity for the basin until 2035. Data for this estimate was based on Wichita-Sedgwick County Planning Department projected growth and development in the basin. Recommended wastewater treatment plant improvements include the addition of a parallel treatment train for a total average day capacity of 6.0 MGD, pumping improvements to increase the firm capacity to 12 MGD through the treatment facility, adding chemical phosphorus precipitation, an additional clarifier, and conversion to ultraviolet disinfection.

This final design is complete and the project is ready for construction. As the facility has effectively reached current design treatment capacity, opening bids in 2016 and beginning construction in 2017 is critical for meeting regulatory requirements and the needs of the basin.

Financial Consideration: On June 3, 2014, the City Council approved a budget of $1,500,000 and later approved an additional $4,000,000 on September 1, 2015. The total approved budget is $5,500,000. The Adopted 2016-2025 Capital Improvement Program (CIP) includes funding of $15,500,000 for construction.

The City’s design consultant, CH2M, estimated a cost of $22,000,000 for project construction, which is $6,500,000 more than is currently programmed in the CIP. To make up for this shortfall, staff recommends reallocating estimated savings from the Force Main Improvements at Plants 1 and 2 project. The CIP includes $44,000,000 for Force Main Improvements and the City’s design consultant for that project, PEC, has determined that $37,500,000 is sufficient to complete the work, providing the $6,500,000 balance needed to supplement the Four Mile Creek budget. This would bring the total revised budget for the Four Mile Creek Plant Improvements to $27,500,000.

The costs for this project are included in Public Works & Utilities Cost of Service Analysis, which considers future rate increases. The project will be funded by future revenue bonds or sewer utility cash reserves. If revenue bonds are issued, up to an additional 8% will be added for financing and administrative costs.
<table>
<thead>
<tr>
<th></th>
<th>Four Mile Creek</th>
<th>Force Main Plant 1 and 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing design budget approved to date</td>
<td>$5,500,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Construction funding programmed in the 2016-2025 CIP</td>
<td>$15,500,000</td>
<td>$44,000,000</td>
</tr>
<tr>
<td>Recommendation of reallocated construction funding</td>
<td>$6,500,000</td>
<td>($6,500,000)</td>
</tr>
<tr>
<td><strong>Revised budgets and amended resolution amounts</strong></td>
<td><strong>$27,500,000</strong></td>
<td><strong>$38,500,000</strong></td>
</tr>
</tbody>
</table>

**Legal Considerations:** The amending resolution and amending notice of intent have been reviewed and approved as to form by the Law Department.

**Recommendation/Action:** It is recommended that the City Council approve the revised budget, adopt the amending resolution, and authorize the necessary signatures.

**Attachments:** Amending resolution and amending notice of intent.