

PURPOSE

The Utility Capital Improvements Program (CIP) Budget provides for the construction and rehabilitation of wastewater systems and water transmission, distribution and supply facilities, to include the engineering and acquisition program for additional water supplies. Other water and wastewater system improvements are financed by accumulated JCSA funds for rehabilitation, replacement, extensions, and expansions.

BUDGET SUMMARY

	FY 13 Adopted	FY 14 Plan	FY 14 Adopted
<u>Revenues:</u>			
Water Facility Charges	\$ 1,952,200	\$ 1,977,778	\$ 2,147,000
Sewer Facility Charges	1,364,160	1,391,443	1,425,000
Water Fund Transfer-Kingswood	-	200,000	200,000
Sewer Fund Transfer-DEQ Consent Order	750,000	1,000,000	618,911
Total Revenue	\$ <u>4,066,360</u>	\$ <u>4,569,221</u>	\$ <u>4,390,911</u>
<u>Expenditures:</u>			
Water Supply	\$ 2,113,000	\$ 2,110,000	\$ 2,120,000
Water Distribution	-	450,000	350,000
Sewer System Improvements	1,703,360	1,759,221	1,280,911
Other Projects	250,000	250,000	640,000
Total Expenditures	\$ <u>4,066,360</u>	\$ <u>4,569,221</u>	\$ <u>4,390,911</u>

BUDGET COMMENTS

This budget will continue our practice of directing facility charges (the initial connection fees when a new house or business connects to the system) towards financing CIP projects. Funds from an adopted 15% service rate increase in FY2013 will be transferred from the Sewer Fund to begin providing additional funds for sewer infrastructure rehabilitation program requirements of the JCSA's Consent Order with the Virginia Department of Environmental Quality. This is the first time since the early to mid-1990s that water and sewer service charge revenues are being transferred to the CIP program. Historically, the CIP has been funded by connection fees. Increased expenditures for the Consent Order and reduced connection fees resulting from the economic downturn have made this change necessary. A transfer from the Water Fund builds funding for the Kingswood water system replacement scheduled for FY2017. FY2014 facility revenues increase 7.7 percent from the FY2013 budget reflecting forecasted growth in connections.

The FY2014-FY2018 CIP consists of thirteen separate, but interrelated, segments of the utility program, all of which are important in keeping pace with regulatory requirements and County development. The proposed five-year plan defines an integrated program for the development of each of the thirteen segments along parallel time frames, designed for adequate service to be provided in support of the County's Comprehensive Plan and Strategic Management Plan. A brief description of the essential features of the thirteen segments follows with a Summary on page E-10.

1. WATER SUPPLY (105-286)

Desalination Plant Equipment Replacement (1207) – This is a capital maintenance project request for the Five Forks Water Treatment Plant (FFWTP). The project consists of replacing reverse osmosis membranes, well pumps and motors and other related equipment as needed. In order to maintain water quality and an appropriate output from FFWTP, membranes must be replaced before failure. There are 720 membranes at approximately \$700 each with associated installation and design expenses. A total of \$245,000 is requested in FY2014 to complete the membrane replacement. In order to maintain operational reliability and required output levels at the FFWTP, the \$230,000 balance in FY2014 is requested to replace Well, High Pressure Feed and High Service Pumps and Motors that have reached the end of their service lives. The existing fund balance of \$285,460 is requested to be carried forward in the FY2014 CIP.

Project Development Agreement Debt Service (1211) – Debt Service Payments for the Project Development Agreement (PDA) with the City of Newport News are financed from connection fees collected in the Capital Improvement Fund. The funding level is approximately \$1,645,000 annually.

Well Abandonment – This is a capital maintenance project request for the Central Water System. The project consists of the demolition of storage tanks, buildings, structures and related appurtenances at seven lower producing wells scheduled to be abandoned.

2. WATER DISTRIBUTION (105-287)

Water Meter Replacement – This is a capital maintenance project request for the Water Distribution System. The project consists of the replacing existing water meters reaching the end of their service lives with the next generation of meter technology to maintain accuracy and efficiency.

White Oaks/Canterbury Subdivision – This project consists of replacing the existing antiquated and undersized water distribution system with new distribution pipes and appurtenances. Replacement of this infrastructure will also increase current fire flow capacities.

Kingswood Subdivision – This project consists of replacing the existing antiquated and undersized water distribution system with new distribution pipes and appurtenances.

3. WATER TRANSMISSION (105-285)

College Creek 16" Waterline Rehabilitation – The existing 16-inch diameter steel waterline that is suspended along the College Creek Bridge was installed in 1976 and the protective coating, fittings, and bridge attachment connections have reached the end of their useful lives because of their exposure to the elements. The existing pipe will be removed, sandblasted, covered with a new protective coating, and reinstalled with new fittings and bridge connections.

4. SEWER SYSTEM IMPROVEMENTS (105-289)

DEQ Consent Order Sewer System Improvements (1232) – This is a modified project request. The results of the Sewer System Evaluation Survey (SSES) inspections provide locations of sanitary sewer system defects and the construction improvements required to rehabilitate the system. These improvements include rehabilitation and/or replacement of numerous manholes and gravity sewer pipe throughout 48 of 76 Lift Station Basins. These 48 basins equate to approximately 76% of the gravity collection system piping. It is envisioned that these projects will require a significant investment and take approximately 20 years to complete. The existing fund balance of \$1,708,914

is requested to be carried forward in the FY2014 CIP with an additional \$13,930,911 requested over the next five years to initiate projects as they are identified. This is a rehabilitation project.

DEQ Consent Order Management, Operation, and Maintenance (MOM)(1223) – The Virginia Department of Environmental Quality (DEQ) Consent Order, effective 9/26/07, requires that localities develop and implement a MOM Program. The DEQ requires certain MOM activities to be performed on a continuing basis to include such things as easement clearing; gravity sewer pipe and manhole inspection; force main and valve inspection; pump station inspection; flow monitoring and hydraulic modeling; fats, oils, and grease abatement; and repair/replacement/rehabilitation of defective assets. Costs for many of these programs have historically been covered in JCSA's operating budget. Additional funds are now necessary to cover costs of an enhanced program to comply with DEQ's MOM Program expectations.

DEQ Consent Order Capacity Enhancements – The Virginia Department of Environmental Quality (DEQ) Consent Order, effective 9/26/07, requires regional and local assessment of wastewater collection, conveyance, and treatment systems capacities. Localities are responsible for ensuring adequate capacity exists in their individually owned collection and conveyance systems (i.e., gravity sewers, pump stations, and force mains). Hydraulic modeling is underway which will be used to identify capacity deficiencies for a yet to be determined Level of Service. The Level of Service refers to a storm event (i.e., 2-, 5-, or 10-year rainfall recurrence) that the system is expected to adequately accommodate without experiencing a Sanitary Sewer Overflow (SSO). Until the capacity analysis is complete and the Level of Service is selected, capital costs cannot be accurately determined. However, reasonable assumptions can be made that funds need to be set aside in anticipation of the future expenditures.

5. OTHER PROJECTS (105-290)

Heavy Equipment/Trucks (1235) – In FY2014, the following vehicles will reach the end of their service lives and are scheduled to be replaced: a single axle, crew cab line truck and a single axle, six ton dump truck. The line truck will be replaced with a heavy duty pickup truck (\$60,000) and the dump truck will be replaced in kind (\$100,000). The existing fund balance of \$6,008 is requested to be carried forward in the FY2014 CIP.

Mirror Lakes Dam Mitigation – The Virginia Department of Dam Safety changed the Hazard Classification on the JCSA's Mirror Lakes Dam to Significant. This change required an Alternatives Analysis in order to comply with the dam's Operation and Maintenance Certificate. The analysis determined the best solution to mitigate the breach threat was a new spillway. The project consists of the design and construction of the spillway.

Building E Renovation and 119 Tewning Improvements (1236) – General Services recommended several renovations to Building E totaling approximately \$46,000, including repairs to the fascia, soffit, gutters and exterior lighting and energy efficiency upgrades to the building envelope. Building E was constructed in 1989 and needs these renovations due to its age. These renovations are required to protect the building from water infiltration, improve safety and decrease energy use. The purpose of the \$25,000 of improvements at 119 Tewning Road is to reconfigure two large open rooms into smaller individual work spaces. Work items include reconfiguration of modular furniture already owned by the JCSA and materials for construction of partition walls and several door replacements to increase the amount of natural light in interior spaces. The existing fund balance of \$11,779 is requested to be carried forward in the FY2014 CIP.