

**PURPOSE**

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

**BUDGET COMMENTS**

This budget proposes to direct facility fees (the initial connection fees when a new house or business connects to the system) towards financing CIP projects. The FY 2009 proposed revenues include Sewer System Facility Charge that will increase 22 percent from FY 2008 budget revenues. The current fee of \$300 per bathroom fixture is proposed to increase to \$400 per bathroom fixture to help finance the DEQ Consent Order rehabilitation requirements.

**BUDGET SUMMARY**

	FY 08 Budget	FY 09 Adopted	FY 10 Plan
<u>Revenues:</u>			
Water Facility Charges	\$ 3,918,600	\$ 3,591,200	\$ 3,734,000
Sewer Facility Charges	1,832,040	2,227,680	2,328,480
Proffers	0	1,000,000	0
Mooretown Road Contribution	87,000	0	0
Total Revenue	\$ <u>5,837,640</u>	\$ <u>6,818,880</u>	\$ <u>6,062,480</u>
<u>Expenditures:</u>			
Water Supply	\$ 3,017,640	\$ 4,387,000	\$ 1,780,000
Water Distribution	879,000	0	1,200,000
Water Storage	0	500,000	0
Water Transmission	0	325,000	895,000
Sewer System Improvements	1,241,000	1,436,880	2,107,480
Other Projects	700,000	170,000	80,000
Total Expenditures	\$ <u>5,837,640</u>	\$ <u>6,818,880</u>	<u>6,062,480</u>

The FY 2009-2013 CIP consists of six separate, but interrelated, segments of the utility program, all of which are important in keeping pace with County development. The proposed five-year plan defines an integrated program for the development of each of the six segments along parallel time frames, designed for adequate service to be provided in step with the County Comprehensive Plan and Strategic Management Plan. A brief description of the essential features of the six segments follows with a Summary on page E-15.

**1. WATER SUPPLY (105-100)**

Conversion to Chloramines (0615) - This is a modified project request. This project provides funding for the design and construction of improvements to water supply facilities to convert chlorine as a primary disinfection to chloramines as primary disinfection. The conversion will allow for the mixing of JCSA distribution system with water from Newport News Waterworks. The existing fund balance of \$2,397,840 is requested to be carried forward in the FY 2009 CIP with an additional \$500,000 requested in FY 2009 for a total of \$2,897,840 to support this project. This is an expansion project.

Route 199 (B-32) Booster Facility Improvements (0618) - This is a modified project request. This project provides the design and construction for improvements that would include new pumps and motors, new motor control center, variable frequency drives, piping modifications, station controls, instrumentation and SCADA. The existing fund balance of \$100,000 is requested to be carried forward in the FY 2009 CIP with an additional \$1,000,000 requested in FY 2009 for a total of \$1,100,000 to complete this project. This is an upgrade project.

Ironbound Road (B-27) Booster Improvements (0619) – This is a new project request. This project request provides for the design and construction of necessary improvements to include new pumps, controls, motor control center, variable frequency drives, piping modifications, generator and automatic transfer switch and SCADA improvements. The existing fund balance of \$300,000 is requested to be carried forward in the FY 2009 CIP with an additional \$900,000 requested in FY 2009 for a total of \$1,200,000 to complete this project. This is a replacement project.

Hansen Infrastructure Management System Update (1050) – This is a modified project request. This project provides for updating existing Hansen IMS to Version 8 and then interfacing with existing GIS and SCADA systems. The existing fund balance of \$35,848 is requested to be carried forward in the FY 2009 CIP with an additional \$207,000 requested in FY 2009 for a total of \$242,848 to complete this project. This is an upgrade project.

Water Meter Replacement Program (XXXX) – This is a new project request. This project provides for removing AMR type water meters that have met their anticipated service life of fifteen years. The program will start in FY 2013, with major efforts lasting approximately five years. After the initial five years the program will reduce to approximately one thousand meters a year to match the number of connections occurring annually. A total of \$420,000 is requested in FY 2013 to begin this project. This is a replacement project.

Desalination Plant Membrane Replacement (XXXX) – This is a new project request. This project provides for replacing reverse osmosis membranes at the Five Forks Water Treatment Plant. A total of \$430,000 is requested in FY 2012 to begin this project. This is a replacement project.

Project Development Agreement Debt Service (XXXX) – This is a new project request. The City of Newport News and JCSA have entered into a Project Development Agreement (PDA) for long-term water supply to James City County. The financing of the PDA will be accomplished through the purchase of revenue bonds. The debt service is estimated to be \$1,780,000 annually beginning in FY 2009 to pay off these bonds at 5 percent for 25 years. This is an expansion project.

**2. WATER DISTRIBUTION (105-110)**

White Oaks Water System (1300) - This is a new project request. This project will allow for the replacement and upgrade of the water distribution system serving the neighborhood. A total of \$2,420,000 is requested in FY 2010-2011 to complete this project. This is a replacement project.

Kingswood Area Water Line Replacement (XXXX) – This is a new project request. This project provides for the replacement of existing pipes and appurtenances to enhance water quality and system reliability. A total of \$640,000 is requested in FY 2012-2013 to complete this project. This is a replacement project.

**3. WATER STORAGE (105-120)**

Economic Development Authority Reserve (XXXX) – This is a new project request. This project provides Economic Development Authority an opportunity fund. A total of \$500,000 in FY 2009 is requested to be set aside for this fund. This is an expansion project.

**4. WATER TRANSMISSION (105-140)**

Ironbound Road Water Main Improvement (XXXX) - This is a new project request. This project provides for the design and construction of a new 16-inch water main in conjunction with a VDOT road widening project on Ironbound Road and along the existing Longhill Road connector. A total of \$1,220,000 is requested in FY 2009 and FY 2010 to complete this project. This is an expansion project.

**5. WASTEWATER IMPROVEMENTS (105-150)**

Flextran Interceptor Sewer Main Rehabilitation (1450) - This is a modified project request. The Flextran Interceptor sewer mains are susceptible to failure due to thin wall fiberglass material. To ensure the mains do not collapse they need to be replaced or slip lined. This project will provide corrective action for approximately 23,500 linear feet of Flextran Interceptor pipe in the Powhatan Creek (LS 1-2) and Chisel Run basins. The existing fund balance of \$50,492 is requested to be carried forward in the FY 2009 CIP with an additional \$3,025,000 requested over the next five years to complete this project. This is a rehabilitation project.

Kingswood Sewer Line Rehabilitation (2060) – This is a modified project request. This project will provide funds to make sewer line improvements within the Kingswood neighborhood. The existing fund balance of \$74,000 is requested to be carried forward in the FY 2009 CIP with an additional \$500,000 requested in FY 2012 and FY 2013 to complete this project. This is a rehabilitation project.

DEQ Consent Order Sewer Survey (2300) – This is a modified project request. The DEQ Consent Order became effective September 27, 2007, and will require extensive sewer system evaluation. The order will require modeling, flow monitoring, sewer system evaluations and reports. Engineering services will be required to supplement in-house efforts in responding to the consent order. The existing balance of \$41,042 is requested to be carried forward in the FY 2009 CIP while an additional \$900,000 is required for FY 2009-2013. This is a rehabilitation project.

Lift Station Upgrades (2320) - This is a modified project request. This project will provide for the replacement of compressor style air ejectors at seven facilities as well as replacement of station electrical controls. The existing balance of \$727,883 is requested to be carried forward in

the FY 2009 CIP while an additional \$600,000 is required over the FY 2011-2013 to complete this project. This is a rehabilitation project.

Blow Flats Road Sewer Main (2420) – This is a modified project request. The gravity sewer main along Blow Flats Road has a back graded section that prompts grease build-up and blockages. The existing balance of \$27,500 is requested to be carried forward in the FY 2009 CIP while an additional \$150,000 is requested in FY 2011 to replace the sewer main. This is a replacement project.

White Oaks Area (2450) - This is a modified project request. The White Oaks and Indigo Park neighborhoods are older neighborhoods and a sewer system CCTV Inspection is warranted. These two neighborhoods are scheduled for water main replacement in the near future. It is prudent to evaluate the sewer system prior to the water main replacement design to determine if sewer improvements are also warranted. Water and sewer improvements should be done simultaneously to mitigate roadway restoration and citizen disruption. The existing balance of \$101,000 is requested to be carried forward in the FY 2009 CIP while an additional \$516,800 is required in FY 2013 to complete this project. This is a replacement project.

James Terrace Sewer Inspection (2460) - This is a modified project request. This project will provide for the spot repair and chemical grouting of pipe joints to reduce inflow and infiltration for the sewers in James Terrace (20,000 LF). The existing balance of \$357,875 is requested to be carried forward in the FY 2009 CIP while an additional \$1,143,600 is requested over the five-year CIP. This is a rehabilitation project.

DEQ Consent Order Sewer System Improvements (XXXX) – This is a new project request. The project will provide for construction of sewer system improvements to existing sewer facilities and sewer gravity/force mains as sewer system surveys are completed. A total of \$6,000,000 is requested over the next five years to initiate projects as they are identified. This is a rehabilitation project.

LS 3-8 (John Tyler Hwy) Control Building (XXXX) - This is a new project request. This Lift Station is in a low area prone to flooding. A new control building is proposed to be constructed on higher ground. Station controls and generator will be relocated to the new building. A total of \$220,000 is requested in FY 2010 to complete this project. This is a replacement project.

LS 4-7 (John Tyler Hwy) Control Building (XXXX) - This is a new project request. This Lift Station is in a low area prone to flooding. A new control building is proposed to be constructed on higher ground. Station controls and generator will be relocated to the new building. A total of \$250,000 is requested in FY 2012 to complete this project. This is a replacement project.

LS 5-4 (Merrimac Trail) Control Building (XXXX) - This is a new project request. This Lift Station is in a low area prone to flooding. A new control building is proposed to be constructed on higher ground. Station controls and generator will be relocated to the new building. A total of \$250,000 is requested in FY 2011 to complete this project. This is a replacement project.

Richmond Road Sewer Main Replacement (XXXX) – This is a new project request. This project provides for the replacement of approximately 4,000 LF of gravity sewer main along Richmond Road which has been found with sags and bellies. A total of \$500,000 is requested in FY 2013 to complete this project. This is a replacement project.

**6. OTHER PROJECTS (105-160)**

Heavy Equipment (3085) - This is a modified request to replace three heavy equipment items which include a Dump Truck, Line Truck and Large Jet Vector Truck. The existing balance of \$386,487 requested to be carried forward in the FY 2009 CIP with an additional \$160,000 requested in FY 2009-2010 to replace these trucks. This is a replacement project.

Building E Rehabilitation (3105) - This is a modified project request. This project request is for the replacement of the building heat pump. The existing balance of \$20,932 is requested to be carried forward to the FY 2009 CIP with another \$90,000 in FY 2009 to complete this project. This is a replacement project.