

***PURPOSE***

The Utility Capital Improvements Program 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 Authority 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 Expansion projects and to transfer budgeted operating fund revenue (commodity service charges) towards financing Rehabilitation and Replacement (R & R) projects.

***BUDGET SUMMARY***

	<b><u>FY 98</u></b>
<b><u>Revenues:</u></b>	
Water Fund Transfer	<b>\$ 1,034,926</b>
Sewer Fund Transfer	<b>649,957</b>
Facility Charges	<b><u>2,912,700</u></b>
 Total Revenue	 <b><u>\$4,597,583</u></b>
<b><u>Expenditures:</u></b>	
Water Supply	<b>\$1,748,583</b>
Water Distribution	<b>852,000</b>
Water Storage	<b>138,000</b>
Small System Acquisition	<b>50,000</b>
Water Transmission	<b>405,000</b>
Sewer System Improvements	<b>1,126,000</b>
Operational Facility Improvements	<b>228,000</b>
Capital Contingency	<b><u>50,000</u></b>
 Total Expenditures	 <b><u>\$4,597,583</u></b>

The FY 1998-2002 Capital Improvements Program 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:

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

Well Facility Development (1010) - This is a modified project request. This project involves the development and construction of new well facilities to meet short-term water supply demands for the next five to ten years. The existing fund balance of \$179,870 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$1,350,000 (\$450,000 each in FY 2000, FY 2001, and 2002) requested to complete this project.

Water Supply Escrow (1015) - This is a modified project request. This escrow account has been established to provide funding for new water supply projects in the future. This funding will allow the JCSA to explore other alternatives to meet the water demands of James City County in the future. The existing fund balance of \$667,891 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$4,036,143 requested over the five-year CIP to maintain this escrow.

Well Facility Improvements (1017) - This is a modified project request. This request is to establish well facility improvements in the out years for system reliability. An additional \$1,075,000 is requested over the five year CIP for this purpose. The existing fund balance of \$64,000 is requested to be carried forward in the FY 1998-2002 CIP.

W-22 (Canterbury Hills) Facility Upgrade (1025) - This is a new project request. This project involves the improvement of reliability and production of the Central Water Systems. Improvements include abandonment of existing well and construction of a new well, pump building, storage tanks, landscaping and drainage. The existing fund balance of \$1,287 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$320,000 requested in FY 1998 to complete the project.

Owens-Illinois Well (W-1) Facility Upgrade (1030) - This is a modified project request. The project involves the water well and facility improvements to enhance well production. Improvements include the construction of a second production well which will be connected to the existing well facility. Booster pump, generator, and water main improvements along Industrial Boulevard are also included. A total of \$520,000 is requested in FY 1999 to complete this project.

Water Supply SCADA (1050) - This is a modified project request. SCADA is a Supervisory Control and Data Acquisition System. Funds for this project will enable the JCSA to compile historical data and assist in facility operations during normal conditions and emergencies. The existing fund balance of \$528,012 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$1,000,000 (\$500,000 each in FY 1998, and in FY 1999) requested to complete this project.

Well Production Improvements (1055) - This is a modified project request. This request is to provide for increased well production by combining W-10 (Colby Road) and W-11 (Forest Glen) wells to double their production capacity. A total of \$485,000 is requested in FY 1999 to complete this project.

Village Well (W-31) Upgrade (1090) - This is a modified project request. This project will provide a backup power source for system reliability and provide building to house disinfection equipment. A total of \$100,000 is requested for this project in FY 1998 and FY 1999.

Tank Coatings (1100) - This is a modified project request. This request is to provide for water tank coating inspections and repairs to protect tank surfaces from corrosion and limit bacteria formation. The existing fund balance of \$50,000 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$700,000 requested over the five-year CIP.

Well (W-24), (W-27), and (W-38) Upgrades (1105) - This is a modified project request. This project will enhance the reliability and production of the central water system. The upgrade includes a new well house, booster pumps, storage tanks and disinfection equipment at W-38. A waterline will be installed to connect W-27 to W-38. The existing balance of \$49,808 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$500,000 requested in FY 1998 to complete this project.

Phase II Well Improvements (XXXX) - This is a new project request. This is the second phase of a well-development program that is intended to expand and improve the JCSA's groundwater supply. The water from this project will help meet the County's additional demand over the next 10 years and allow the elimination of several wells with low water quality or production capacity. The existing fund balance of \$652,142 in Owens-Illinois Well (\$352,142) and Well Production Improvement (\$300,000) is requested to be carried forward in FY 1998 CIP and transferred to this project.

W-2 (Toano), W-4 (Pottery), and W-9 (Season's Trace) Facility Upgrades (XXXX) - This is a new project request. This project will allow for well pump improvements to maximize the capacity of identified wells and adjust the elevation of the well pumps as required by JCSA's groundwater withdrawal permit. The existing fund balance of \$50,000 in Well Facility Development is requested to be carried forward in FY 1998 CIP and transferred to this project.

Water Treatment Study (XXXX) - This is a new project request. The proposed study will evaluate the options and costs for treating groundwater from the Potomac Aquifer for use as potable water and therefore, reducing demands on the Chickahominy Piney Point Aquifer. The existing fund balance of \$75,000 in Well Facility Development is requested to be carried forward in FY 1998 CIP and transferred to this project.

W-40 (Chickahominy Road) Facility Upgrade (XXXX) - This is a new project request. This project will add an additional Chickahominy Piney Point Well at the W-40 facility in order to maximize the production capacity of an existing Potomac Aquifer well. A total of \$285,000 is requested in FY 1999 to complete this project.

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

James Terrace (1140) - This is a modified project request. This project provides for the replacement of old and undersized water mains in the James Terrace subdivision. The existing fund balance of \$341,820 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$680,000 requested (\$260,000 in FY 1998, \$70,000 in FY 1999, and \$350,000 in FY 2000) to complete this project.

Water System Improvements (1150) - This is a modified project request. This project will provide funds for water distribution improvements to include installing water mains to close distribution loops and up sizing mains to enhance water distribution. A total of \$600,000 (\$200,000 in FY 1999, \$100,000 in FY 2000 and FY 2001, and \$200,000 in FY 2002) is requested to complete this project.

Toano Water Main (1170) - This is a modified project request. This project provides for the replacement of old and undersized water mains in the Toano area. The existing fund balance of \$57,725 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$305,000 requested in FY 1998 to complete this project.

Pressure Reducing Valves (1180) - This is a modified project request. This project provides for the replacement of existing underground facilities with above ground facilities. Pressure reducing valves at St. George's Hundred, Greensprings Road, Neck-O-Land Road and Jamestown 1607 will be replaced. The existing fund balance of \$102,348 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$207,000 requested to complete the project (\$117,000 in FY 1998 and \$90,000 in FY 1999).

Automatic Meter Reading System (1190) - This is a modified project request. This project provides for the replacement of existing water meter registers with an encoder register that will improve meter reading 2-3 times faster and can shorten billing cycle. The existing fund balance of \$100,000 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$850,000 requested over the five-year CIP to complete this project.

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

Water Storage Escrow (1240) - This is a modified project request. This project provides for the construction of multiple size water storage tanks in the PSA in accordance with the Master Water Plan. The existing fund balance of \$640,000 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$748,000 requested to complete the project (\$138,000 in FY 1998, \$160,000 in FY 1999, \$100,000 in FY 2000 and FY 2001, and \$250,000 in FY 2002).

**4. SMALL WATER SYSTEMS ACQUISITIONS ESCROW (105-130)**

Water System (1300) - This project is an ongoing effort by the JCSA to buy and interconnect water systems in accordance with the Master Water Plan. The targeted private water systems are experiencing problems in maintenance and have fair to poor water quality, presenting both health and safety problems. The existing fund balance of \$200,000 is requested to be carried forward in the FY 1998-2002 CIP. A total of \$250,000 in additional funding (\$50,000 in each of the remaining years) is requested to fund this project.

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

Interconnects to Williamsburg (1450) - This is a modified project request. The project involves the transfer of those subdivisions on Williamsburg water to the JCSA water system. Subdivisions to be connected include Kingspoint, Kingswood, Lake Powell area, and Winston Terrace area. The existing balance of \$120,000 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$295,000 in FY 1998 to complete this project.

Centerville Road (1455) - This is a modified project request. The project involves the replacement of an 8-inch water main on Centerville Road and a 12-inch water main on Longhill Road. A total of \$100,000 is requested in FY 1999 to complete this project.

Mooretown Road Water Main (1490) - This is a modified project request. The project involves the construction of an 8-inch water main along a portion of Mooretown Road near Ewell Industrial Park in York County and to connect to a developer's extension and an existing JCSA system in Raintree subdivision. The existing fund balance of \$85,000 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$50,000 requested to complete this project in FY 1999.

Transmission Main Improvements (1493) - This is a modified project request. This project provides for the replacement of water transmission lines to convey large volumes of water through existing distribution system to enhance system pressures, fire flows, and water quality. The existing fund balance of \$200,000 is requested to be carried forward in the FY 1998-2002 CIP. A total of \$1,010,000 in additional funding is requested over the five-year CIP.

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

Lift Station 1-7 (Thomas Jefferson) Upgrade (2005) - This is a modified project request. The project will provide for a complete rehab to LS 1-7 located in the vicinity of Thomas Jefferson Inn. The existing fund balance of \$19,485 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$75,000 requested in FY 1998.

Lift Station 4-4 (Jamestown Road) Upgrade (2015) - This is a modified project request. The project will provide improvements to LS 4-4 located at 1594 Jamestown Road. Improvements will include installation of a new auxiliary generator and automatic transfer switch for facility reliability. The existing fund balance of \$140,000 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$20,000 requested in FY 1998.

Inflow and Infiltration (2020) - This is a modified project request. The purpose of this project is to make repairs to the sanitary sewer system to eliminate extraneous water. The existing fund balance of \$45,009 is requested to be carried forward to FY 1998-2002 CIP with an additional \$400,000 requested over the five-year CIP to complete this project.

Lift Station 5-4 (Franks Truck Stop) Generator (2030) - This is a modified project request. The project provides for the replacement of existing portable generator and installation of permanent generator. A total of \$90,000 is requested in FY 1998 to complete this project.

Odor Control System (2045) - This is a modified project request. The project will provide for the installation of an odor control system of Lift Stations 1-3, 3-3, 4-4, and several lift stations in Kingsmill. The existing fund balance of \$38,626 is requested to be carried forward in the FY 1998-2002 CIP. An additional \$115,000 is requested in FY 1998 to complete this project.

Longhill Gravity Main (Wallace Estates) (2050) - This is a modified project request. This project provides for the extension of mandatory gravity sewer which eliminates the need for additional lift stations, force mains, and reduce the number of existing lift stations. A total of \$421,000 is requested between FY 1998-2000 to complete this project.

Tutter's Neck Force Main (2063) - This is a modified project that involves the replacement of approximately 350 linear feet of failing 6-inch sewer force main on Tutter's Neck in Kingsmill. \$200,000 is requested to complete this project in FY 1999 and FY 2000.

Sewer System Improvements (2100) - This is a modified project request. This project will provide funds for sewer system improvements during the next five years. The existing balance of \$18,588 is requested to be carried forward in the FY 1998-2002 CIP while an additional \$1,465,000 is required to complete this project.

Right-of -Way Clearing (2105) - This is a modified project that involves the clearing of brush and trees along approximately 60 miles of right-of-ways held by the JCSA. This project helps reduce inflow and infiltration by eliminating threats to water and sewer lines such as root growth. A total of \$250,000 is requested over the five-year CIP to complete this project.

Fuel Tank Replacements (2123) - This is a modified project that involves the replacement of underground fuel storage tanks with above ground tanks to conform with Federal and State requirements. The existing fund balance of \$57,679 is requested to be carried forward in the FY 1998-2002 CIP. An additional \$150,000 is requested in FY 1998 to continue this project.

Lift Station 1-1 (Jamestown 1607) and Lift Station 4-8 (Raleigh Street) Rehab (2140) - This is a modified project request. The project will provide improvements to LS 1-1 and 4-8 located along Jamestown Road. These improvements will reduce high pressure surges in the force main. The existing fund balance of \$49,397 is requested to be carried forward in the FY 1998-2002 CIP with an additional \$240,000 requested in FY 1998 to complete this project.

Lift Station 6-8 (Depot Street) Upgrade (2150) - This is a modified project request. The project will provide for the complete rehab to LS 6-8 located at 122 Depot Street in Toano. The existing fund balance of \$217,840 is requested to be carried forward in the FY 1998-2002 CIP. An additional \$350,000 is requested to complete this project in FY 1999-2000.

Lift Station 3-1 (Canham Road) and Lift Station 3-3 (Jamestown 1576) Rehab (2225) - This is a modified project request. The project will provide improvements to LS 3-1 and 3-3 located along Jamestown Road. These improvements will reduce high pressure surges in the force main. The existing fund balance from LS 3-1 of \$134,200 and LS 3-3 of \$136,285 are requested to be combined and carried forward in the FY 1998-2002 CIP. An additional \$140,000 is requested in FY 1998 to complete this project.

Lift Station Facility Upgrade (XXXX) - This is a modified project request. This project is established to provide funds for future Lift Station improvements. Specific projects have not been identified. A total of \$1,758,000 is requested in FY 1999-2002 for this project.

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

Tewning Road Expansion (3005) - This is a modified project request. The purpose of this project is to escrow funds for expansion of Tewning Road facilities. Tewning Road activities have no room for expansion. Continued growth will require acquisition of additional land and new operational facilities. The existing fund balance of \$200,000 is requested to be carried forward in the FY 1998-2002 CIP. An additional \$500,000 is requested for this five year plan.

Heavy Equipment (3085) - This is a modified request to replace several heavy equipment items. Scheduled equipment replacement includes a 8-inch Godwin Pump and Sewer Camera mounted in van in FY 1998. All terrain vehicle, trencher, two dump trucks, cabover truck, and line truck are projected for replacement in FY 2000. A line truck, crane truck, backhoe, mini-vac truck, and one ton truck are projected for replacement in FY 2001. The Jet-Vac Truck is projected for replacement in FY 2002. A total of \$1,036,000 is requested over the five-year CIP.