Fund 408
Sewer Bond Construction

Focus

Fund 408, Sewer Bond Construction, provides for major sewer system construction projects that are funded from the sale of sewer revenue bonds and/or sewer system revenues including upgrades and expansions of sewer treatment plants utilized by Fairfax County residents. In FY 2007, funding of $61,087,000 is included in Fund 408, Sewer Bond Construction to begin to meet new state regulatory requirements for nitrogen removal and plant upgrades at the District of Columbia Water and Sewer Authority (DCWASA), the Alexandria Sanitation Authority (ASA), the Arlington County Treatment Plant, the Loudon County Sanitation Authority (LCSA) treatment plant; and the Noman M. Cole Cr. Pollution Control Plant. Initial design expenditures were funded in Fund 402, Sewer Construction Improvements. Construction requirements will be offset by the planned sale of sewer bonds in FY 2007.

Funding of $150 million is recommended through the sale of bonds in FY 2007 to provide maximum flexibility to meet new state regulatory requirements in the Wastewater Management Program (WWM). The new Chesapeake Bay water quality program requires reductions in the amount of nutrient pollutants discharged from wastewater treatment facilities. In December 2004, the state notified the County that the renewal of County's NPDES permit will include a requirement that nutrient removal be performed at the "Limits of Technology." Current technology allows for discharge limits of less than 3.0 milligrams per liter of nitrogen and 0.1 milligrams per liter for phosphorus. The County has the capability to meet the current nitrogen removal standard of 8.0 milligrams per liter. A phased approach is recommended to renovate and upgrade current plant facilities to accommodate new more stringent nutrient discharge requirements.

A Sewer Revenue Bond sale in the amount of $150 million is planned to support the Chesapeake Bay water quality program requirements for the operations of the Wastewater Management Program. This includes bond proceeds of $140,294,000 in this fund and $9,706,000 reserved in Fund 406, Sewer Bond Debt Reserve for legal requirements. As outlined in the 1986 Bond Resolution, this reserve is required to be the lesser of the maximum principal and interest requirements for any bond year or 125 percent of the average annual principal and interest requirements for the bonds. In addition, interest is earned on the fund balance in this fund, and an amount of $164,050 is anticipated in interest earnings in FY 2007.

The FY 2007 expenditure level of $61,087,000 represents funding for those capital improvements projects scheduled to begin in FY 2007. Additional project requirements will be appropriated from fund balance in FY 2008.

Changes to FY 2006 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2006 Revised Budget Plan since passage of the FY 2006 Adopted Budget Plan. Included are all adjustments made as part of the FY 2005 Carryover Review and all other approved changes through December 31, 2005:

- At the *FY 2005 Carryover Review*, the Board of Supervisors approved an increase of $12,951,986 due to the carryover of unexpended project balances.

A Fund Statement and a Summary of Capital Projects, and Project Detail Tables for each project funded in FY 2007 are provided on the following pages. The Summary of Capital Projects may include some projects without a Total Project Estimate amount. These projects are considered "continuing" projects or projects for which funding is necessary on an ongoing basis (e.g., a contingency or planning project). The Project Detail Tables include project location, description, source of funding, and completion schedules.

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FUND STATEMENT

Fund Type G40, Enterprise Funds **Fund 408, Sewer Bond Construction**

	FY 2005 Actual	FY 2006 Adopted Budget Plan	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan
Beginning Balance	**$28,890,144**	**$3,089,270**	**$18,043,051**	**$5,126,582**
Revenue:				
Revenue from the Commonwealth[1]	$1,306,639	$0	$0	$0
Sale of Bonds[2]	0	0	0	140,294,000
Interest on Investments	1,995,156	35,517	35,517	164,050
Total Revenue	$3,301,795	$35,517	$35,517	$140,458,050
Total Available	**$32,191,939**	**$3,124,787**	**$18,078,568**	**$145,584,632**
Total Expenditures	$4,648,888	$0	$12,951,986	$61,087,000
Transfers Out:				
Sewer Revenue (400)[3]	$9,500,000	$0	$0	$0
Total Transfers Out	$9,500,000	$0	$0	$0
Total Disbursements	**$14,148,888**	**$0**	**$12,951,986**	**$61,087,000**
Ending Balance [4]	**$18,043,051**	**$3,124,787**	**$5,126,582**	**$84,497,632**

[1] Represents the reimbursement from the State Water Quality Improvement Fund for nitrification removal charges based upon actual expenditures, which vary from year to year.

[2] An amount of $150 million in revenue bonds is anticipated to be issued in FY 2007 to support capital program requirements for the operations of the Wastewater Management Program including $140.3 million in this fund and $9.7 million to be reserved in Fund 406, Sewer Bond Debt Reserve for legal requirements.

[3] An amount of $9.5 million from fund balance was transferred to Fund 400, Sewer Revenue in FY 2005, to ensure that the Wastewater Management Program had an adequate cash balance for system requirements in other sewer funds.

[4] The capital projects in this sewer fund are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

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FY 2007 Summary of Capital Projects

Fund: 408 Sewer Bond Construction

Project #	Description	Total Project Estimate	FY 2005 Actual Expenditures	FY 2006 Revised Budget	FY 2007 Advertised Budget Plan
G00902	DC Blue Plains Exp 309 MGD	$47,883,784	$0.00	$0.00	$8,743,000
G00904	Arlington Treatment Plant Upgrade	6,750,000	0.00	0.00	6,750,000
I00906	ASA Plant Improvements	$12,351,000	0.00	0.00	12,351,000
J00901	LCSA Plant Upgrade	$1,500,000	0.00	0.00	1,500,000
N00322	Lower Potomac 67 MGD	142,366,503	4,648,888.00	12,951,986.49	17,243,000
X00911	Noman M. Cole, Jr. Pollution Control Plant Renovations	106,829,000	0.00	0.00	14,500,000
Total		**$317,680,287**	**$4,648,888.00**	**$12,951,986.49**	**$61,087,000**

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G00902	DC Treatment Blue Plains
Blue Plains Sewer Shed	Countywide

Description and Justification: This project provides for the payment to DC Washington Sanitation Authority (DCWASA) for Fairfax County's share of the projected costs associated with upgrades to the Plant. The County pays for approximately 8.4 percent of the total costs for the design and construction of the upgrade for nitrification and sludge handling facilities. FY 2007 funding in the amount of $8,743,000 is required to meet the County's obligation and is based on the projected construction schedule. Initial design expenditures were funded in Fund 402, Sewer Construction Improvements. Construction requirements will be offset by the planned sale of sewer bonds in FY 2007.

	Total Project Estimate	Prior Expenditures	FY 2005 Expenditures	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan	Future Years
Land Acquisition	$0	$0	$0	$0	$0	$0
Design and Engineering	0	0	0	0	0	0
Construction	17,660,726	8,917,726	0	0	8,743,000	0
Other	30,223,058	26,514,347	0	0	0	3,708,711
Total	$47,883,784	$35,432,073	$0	$0	**$8,743,000**	$3,708,711

Source of Funding				
General Funding	Sewer Revenue Bonds	Transfers from Other Funds	Other	Total Funding
$0	$8,743,000	$0	$0	$8,743,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
N/A	Various	Various	Various	Fourth Quarter FY 2015

Operating Budget Impact: The completion of this project will increase Fairfax County's share of operation and maintenance costs for nutrient removal and solids handling at the DC Blue Plains Wastewater Treatment Plant.

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G00904	Arlington Treatment Plant Upgrade
Arlington Sewer Shed	Countywide

Description and Justification: This project provides for the expansion and improvement of the Arlington County Wastewater Treatment Plant. The Fairfax County Board of Supervisors renewed the service agreement with Arlington County in July 1994 for the purchase of permanent sewage treatment capacity allocation of three million gallons per day in the expanded and improved Arlington Wastewater Treatment Plant. FY 2007 funding in the amount of $6,750,000 is required to meet the County's obligation and is based on the current construction schedule. Initial design expenditures were funded in Fund 402, Sewer Construction Improvements. Construction requirements will be offset by the planned sale of sewer bonds in FY 2007.

	Total Project Estimate	Prior Expenditures	FY 2005 Expenditures	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan	Future Years
Land Acquisition	$0	$0	$0	$0	$0	$0
Design and Engineering	0	0	0	0	0	0
Construction	6,750,000	0	0	0	6,750,000	0
Other	0	0	0	0	0	0
Total	$6,750,000	$0	$0	$0	**$6,750,000**	$0

Source of Funding				
General Funding	Sewer Revenue Bonds	Transfers from Other Funds	Other	Total Funding
$0	$6,750,000	$0	$0	$6,750,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
N/A	Second Quarter FY 2003	Fourth Quarter FY 2006	Various	Fourth Quarter FY 2015

Operating Budget Impact: The completion of this project will increase Fairfax County's share of operation and maintenance costs for nitrogen removal at the Arlington treatment plant.

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I00906	ASA Plant Improvements
ASA Sewer Shed	Various

Description and Justification: This project funds the payment to the Alexandria Sanitation Authority for Fairfax County's 60 percent share of construction costs associated with plant upgrades to the Alexandria Wastewater Treatment Plant. FY 2007 funding in the amount of $12,351,000 provides for the County's share and is based on the current construction schedule. Initial design expenditures were funded in Fund 402, Sewer Construction Improvements. Construction requirements will be offset by the planned sale of sewer bonds in FY 2007.

	Total Project Estimate	Prior Expenditures	FY 2005 Expenditures	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan	Future Years
Land Acquisition	$0	$0	$0	$0	$0	$0
Design and Engineering	0	0	0	0	0	0
Construction	12,351,000	0	0	0	12,351,000	0
Other	0	0	0	0	0	0
Total	$12,351,000	$0	$0	$0	**$12,351,000**	$0

Source of Funding				
General Funding	Sewer Revenue Bonds	Transfers from Other Funds	Other	Total Funding
$0	$12,351,000	$0	$0	$12,351,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
Fourth Quarter FY 2007	First Quarter FY 2000	Second Quarter FY 2007	Fourth Quarter FY 2007	Fourth Quarter FY 2015

Operating Budget Impact: The completion of this project will increase Fairfax County's share of operation and maintenance costs for nitrogen removal (methanol addition) at the Alexandria treatment plant.

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J00901	LCSA Plant Upgrade
Blue Plains Sewer Shed	Countywide

Description and Justification: This project funds the payment to the Loudon County Sanitation Authority (LCSA) for Fairfax County's share of capacity costs associated with the new Broad Run Treatment Plant. The County plans to initially purchase 1 mgd of the plant capacity and purchase 2 mgd of additional capacity by 2015. Funding of $1,500,000 provides for the County's FY 2007 share based on the current construction schedule. FY 2007 represents the first year of payments to LCSA.

	Total Project Estimate	Prior Expenditures	FY 2005 Expenditures	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan	Future Years
Land Acquisition	$0	$0	$0	$0	$0	$0
Design and Engineering	0	0	0	0	0	0
Construction	1,500,000	0	0	0	1,500,000	0
Other	0	0	0	0	0	0
Total	$1,500,000	$0	$0	$0	**$1,500,000**	$0

Source of Funding

General Funding	Sewer Revenue Bonds	Transfers from Other Funds	Other	Total Funding
$0	$1,500,000	$0	$0	$1,500,000

Completion Schedule

Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
N/A	N/A	N/A	Fourth Quarter FY 2004	Fourth Quarter FY 2010

Operating Budget Impact: The completion of this project will increase costs associated with treatment by contract based on new treatment costs at the Broad Run Treatment Plant.

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N00322	Noman M. Cole, Jr. Pollution Control Plant Upgrades
Lower Potomac Sewer Shed	Mount Vernon

Description and Justification: This project provides for the upgrade to the Noman M. Cole, Jr. Pollution Control Plant. FY 2007 funding in the amount of $17,243,000 funds the plant upgrades to meet nitrogen removal standards. Currently, the plant has the capabilities of meeting the current nitrogen removal standard of 8.0 milligrams per liter. However, the State has changed the standard to 3.0 milligrams per liter. In order to meet the 3.0 milligrams per liter limit, an upgrade of the plant's current nitrogen removal process will be required. Initial design expenditures were funded in Fund 402, Sewer Construction Improvements. Construction requirements will be offset by the planned sale of sewer bonds in FY 2007.

	Total Project Estimate	Prior Expenditures	FY 2005 Expenditures	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan	Future Years
Land Acquisition	$958,624	$958,624	$0	$0	$0	$0
Design and Engineering	0	0	0	0	0	0
Construction	140,744,376	105,900,502	4,648,888	12,951,986	17,243,000	0
Other	663,502	663,502	0	0	0	0
Total	$142,366,503	$107,522,628	$4,648,888	$12,951,986	**$17,243,000**	$0

Source of Funding				
General Funding	Sewer Revenue Bonds	Transfers from Other Funds	Other	Total Funding
$0	$17,243,000	$0	$0	$17,243,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
N/A	Various	First Quarter FY 2010	Third Quarter FY 2008	Second Quarter FY 2013

Operating Budget Impact: The completion of this project will increase Fairfax County's share of operation and maintenance costs for nitrogen removal (methanol addition) at the Noman M. Cole, Jr. Pollution Control treatment plant.

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X00911	Noman M. Cole Jr. Pollution Control Plant Renovations
Lower Potomac Sewer Shed	Mount Vernon

Description and Justification: This project provides for the repair, replacement, and renovation of facilities at the Noman M. Cole, Jr. Pollution Control Plant to maintain efficient operations and meet permit requirements. FY 2007 funding of $14,500,000 supports the carbon replacement of the plant's filter systems, surge suppression of voltage, spikes, incinerator rehabilitation, treatment clarifiers and grit building rehabilitation, installation of backup generators, the final phase of the sludge dewatering facility replacement and the stormwater management plan to control the plant's stormwater runoff. Initial design expenditures were funded in Fund 402, Sewer Construction Improvements. Construction requirements will be offset by the planned sale of sewer bonds in FY 2007.

	Total Project Estimate	Prior Expenditures	FY 2005 Expenditures	FY 2006 Revised Budget Plan	FY 2007 Advertised Budget Plan	Future Years
Land Acquisition	$0	$0	$0	$0	$0	$0
Design and Engineering	0	0	0	0	0	0
Construction	106,829,000	0	0	0	14,500,000	0
Other	0	0	0	0	0	0
Total	$106,829,000	$0	$0	$0	**$14,500,000**	$0

Source of Funding				
General Funding	Sewer Revenue Bonds	Transfers from Other Funds	Other	Total Funding
$0	$14,500,000	$0	$0	$14,500,000

Completion Schedule				
Land Acquisition Completion	Engineer/Architect Contract Award	Design Completion	Construction Contract Award	Construction Completion
N/A	Various	Various	Various	Various

Operating Budget Impact: The completion of this project will reduce costly operation and maintenance costs for the wastewater collection facilities.