

CAPITAL IMPROVEMENT PROGRAM

FY 2010-11 THROUGH FY 2014-15

PUBLIC UTILITIES - WATER

FUND 51

ENTERPRISE FUND - PUBLIC UTILITIES

Prepared by: OMB March, 2010

County of Henrico, Virginia
Capital Improvement Program
FY 2010-11 through FY 2014-15

Public Utilities-Water

Fund 51 Enterprise Fund - W&S

Project/Work Phase	Priority	Request FY 10-11	Request FY11-12	Request FY 12-13	Request FY 13-14	Request FY 14-15	Total Five Year
00771 New Water Connections	1	200,000	200,000	200,000	200,000	200,000	1,000,000
00770 Water Line Extensions	2	500,000	500,000	500,000	500,000	500,000	2,500,000
00768 Water Line Rehabilitation	3	2,000,000	2,000,000	2,000,000	2,000,000	6,000,000	14,000,000
00769 Water Pumping Station Improvements	4	75,000	75,000	75,000	75,000	1,200,000	1,500,000
00780 Water Meters	5	300,000	325,000	325,000	350,000	350,000	1,650,000
00767 Water Reloc., Adjustments & Crossings	6	200,000	200,000	200,000	200,000	200,000	1,000,000
00811 Information Technology Projects	7	1,000,000	500,000	500,000	500,000	0	2,500,000
00776 Water Treatment Plant Expansion	8	1,200,000	800,000	0	0	0	2,000,000
06456 New Market Water Pressure Zone	9	262,890	0	0	0	0	262,890
06125 Cobbs Creek (Cumberland) Reservoir	1	0	2,650,000	26,320,000	2,650,000	136,386,000	168,006,000
00774 Beverly Hills Area Water Rehabilitation	2	0	1,035,000	5,796,000	0	0	6,831,000
06119 Laburnum Avenue Water Booster Station	3	0	621,000	2,136,240	0	0	2,757,240
06382 Creighton Road Water Line	4	0	950,000	0	0	0	950,000
06383 Dabbs House Road Water Line	5	0	500,000	0	0	0	500,000
06515 Water Transmission Mains Ph 2	1	0	0	14,490,000	0	83,317,500	97,807,500
00810 Water Meter AMR & Replacement Prog.	2	0	0	3,000,000	0	0	3,000,000
00812 Fire Flow Enhancement Program	3	0	0	1,500,000	0	0	1,500,000
06513 Kain Road Area WPS & Tank	1	0	0	0	1,035,000	2,674,440	3,709,440
06118 Sadler Road 12" Water Line	1	0	0	0	0	1,700,000	1,700,000
06570 Shady Grove Area Water Supply Main	2	0	0	0	0	776,250	776,250
Total		5,737,890	10,356,000	57,042,240	7,510,000	233,304,190	313,950,320

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00771	Project Name: New Water Connections
Department: Public Utilities-Water	Department Priority: 1
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Design and construct water service connections to serve customers from existing water system.

Purpose and Need

Installation of water service connections for owner occupied homes is a service provided by Public Utilities as described in the County Code to provide water service to new customers.

History and Current Status

Ongoing project. Requested funding remains the same as in last fiscal year's submission at \$200,000 per year.

Location

Countywide

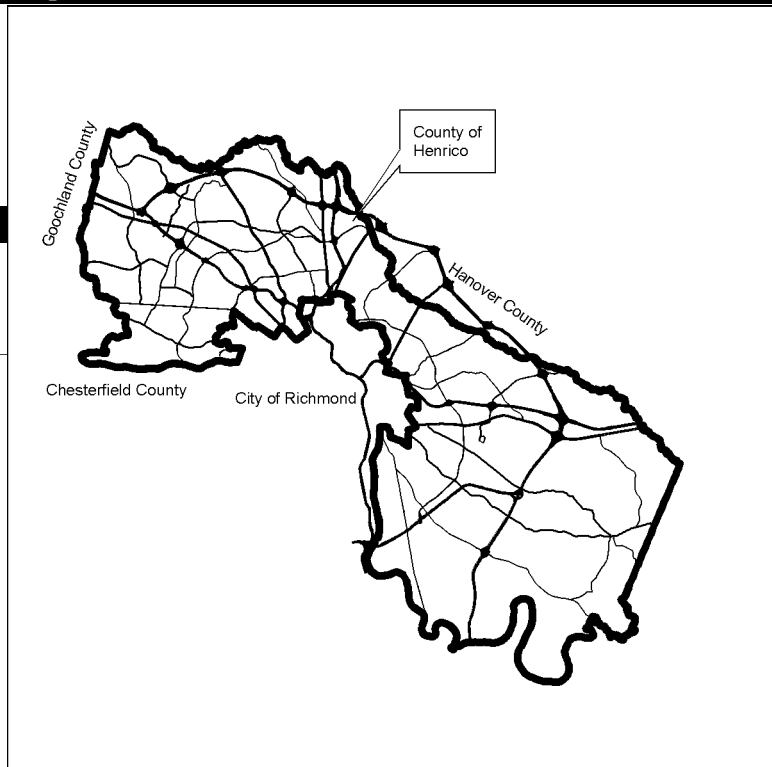
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	200,000	200,000	200,000	200,000	200,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000

Estimated Operating Costs

Map

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0



Notes

Prior Request Year: Year 1
Prior Request Priority: 1
Prior Request Amount: \$200,000

Recommended FY2011 funding:
 \$200,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00770	Project Name: Water Line Extensions
Department: Public Utilities-Water	Department Priority: 2
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Design and construct water line extensions from the existing system to serve owner occupied single family residences.

Purpose and Need

Installation of water line extensions for owner occupied homes is a service provided by Public Utilities as described in the County Code to provide water service to new customers.

History and Current Status

Ongoing project. Five-year annual funding request reduced from \$700,000, as was submitted in the prior year CIP submission, to \$500,000 per year.

Location

Countywide

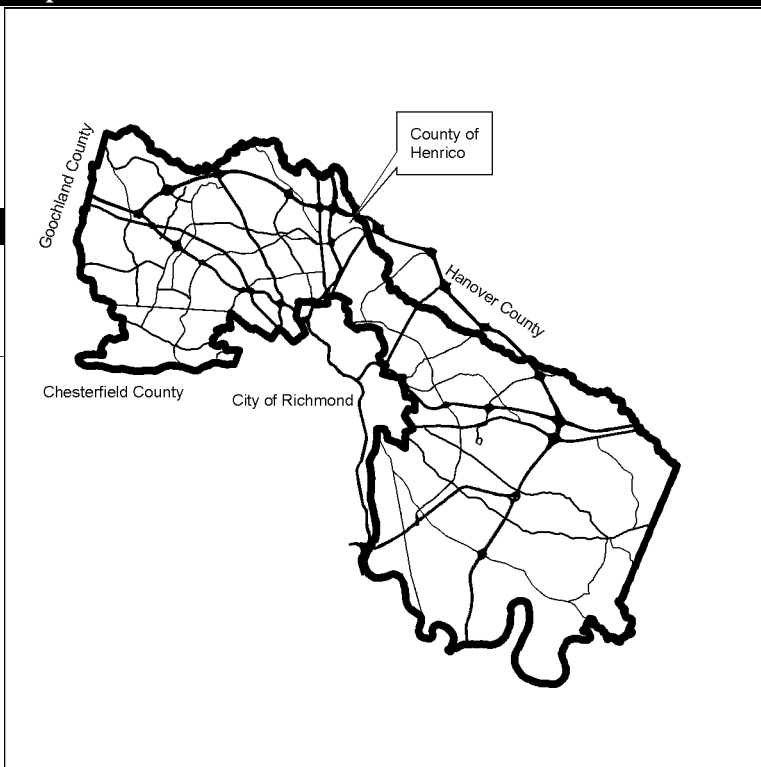
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	50,000	50,000	50,000	50,000	50,000
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	450,000	450,000	450,000	450,000	450,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year:	Year 1
Prior Request Priority:	2
Prior Request Amount:	\$700,000

Recommended FY2011 funding:
\$500,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00768	Project Name: Water Line Rehabilitation
Department: Public Utilities-Water	Department Priority: 3
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Design and construct replacement of deteriorated water mains. Existing water mains and services are replaced as needed to upgrade the existing system.

Purpose and Need

These projects are part of the Department's Water Rehabilitation Program and are identified through water break analysis and maintenance records of the existing water distribution system. The Operations Division and Design Division determine project priority for the individual projects based on severity of problem, maintenance cost, and type of customer complaints.

History and Current Status

Ongoing project. Schedule submitted in prior year CIP: FY2010 - \$2,000,000; FY2011 - \$2,000,000; FY2012 - \$3,000,000; FY2013 - \$5,000,000; FY2014 - \$6,000,000. Funding is planned to increase over time as the existing water system ages.

Location

Countywide

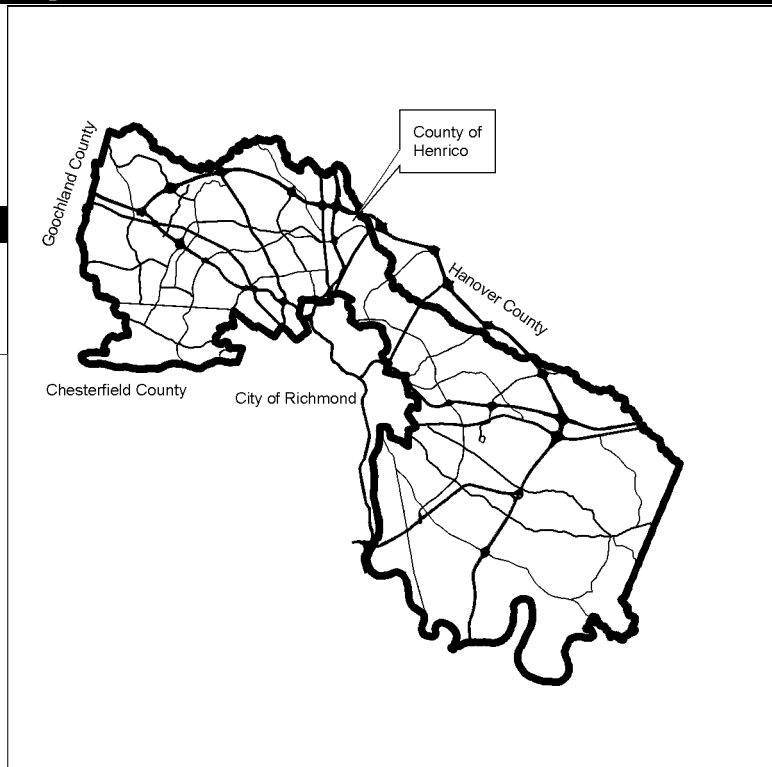
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	400,000	400,000	400,000	400,000	1,200,000
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	1,600,000	1,600,000	1,600,000	1,600,000	4,800,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year:	Year 1
Prior Request Priority:	3
Prior Request Amount:	\$2,000,000

Recommended FY2011 funding:
\$2,000,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00769	Project Name: Water Pumping Station Improvements
Department: Public Utilities-Water	Department Priority: 4
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Design and construct improvements and major repairs at existing water pumping stations necessary to upgrade and repair these water pumping stations.

Purpose and Need

The need for upgrades and repairs to pumping stations are determined from Operations on-going maintenance programs and from the master utility plan.

History and Current Status

Ongoing project. Funding remains at \$75,000 per year. Funding in FY2004-15 is for adjustable frequency drive (AFD) improvements.

Location

Countywide

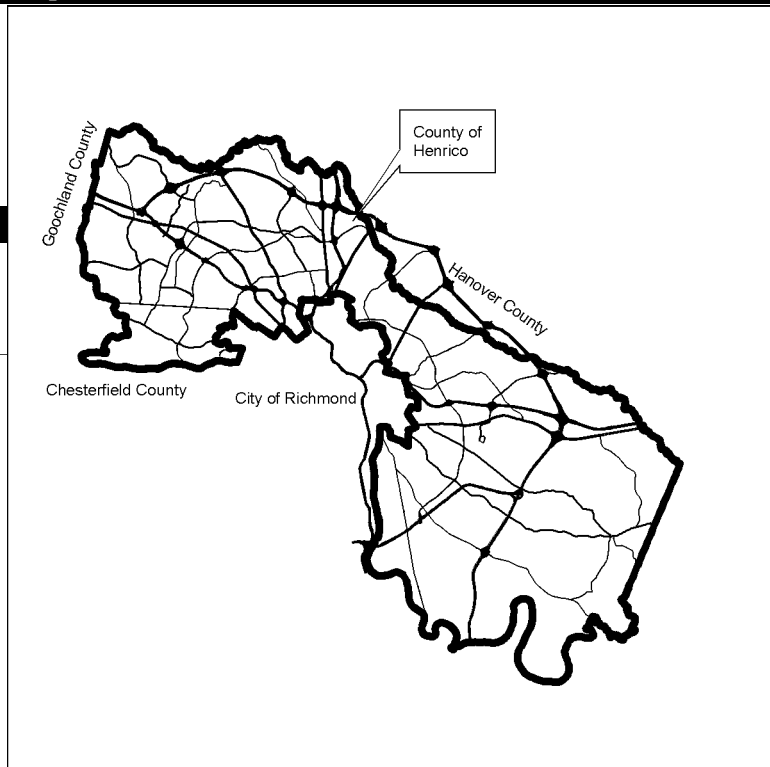
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	15,000	15,000	15,000	15,000	250,000
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	60,000	60,000	60,000	60,000	950,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$75,000	\$75,000	\$75,000	\$75,000	\$1,200,000

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 1
Prior Request Priority: 4
Prior Request Amount: \$75,000

Recommended FY2011 funding:
 \$75,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00780	Project Name: Water Meters
Department: Public Utilities-Water	Department Priority: 5
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Install water meters on new water service connections to measure the amount of water being delivered to customers.

Purpose and Need

Water meters are required on all service connections. Usage is read and quantities used determine charges billed to each customer.

History and Current Status

Ongoing project. New meters to be the same as meters with meter interface units provided for AMR project. Funding increases based on contract unit costs. Schedule submitted in prior year FY2010 - \$300,000; FY2011 - \$300,000; FY2012 - \$325,000; FY2013 - \$325,000; FY2014 - \$350,000.

Location

Countywide

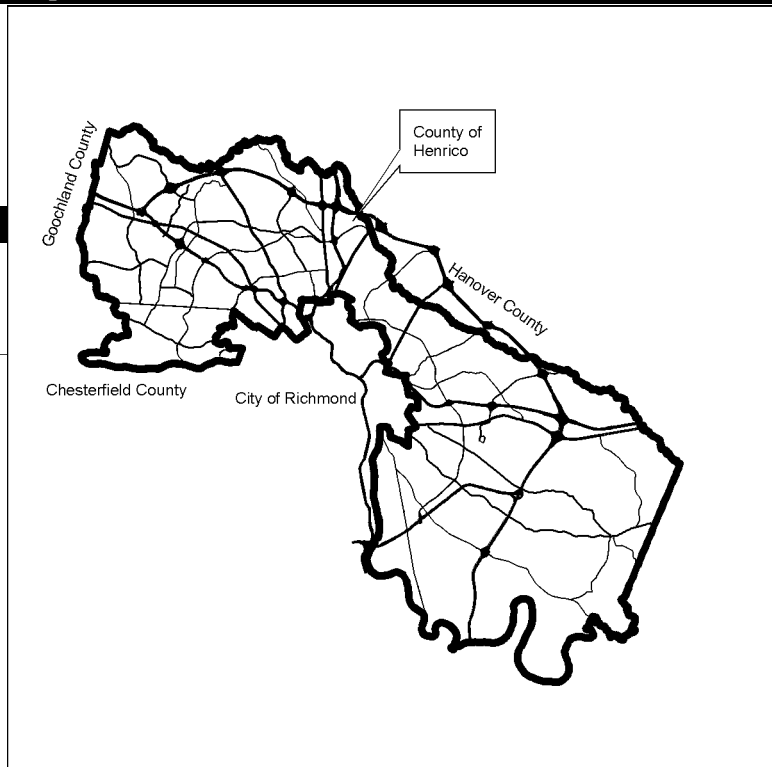
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	300,000	325,000	325,000	350,000	350,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$300,000	\$325,000	\$325,000	\$350,000	\$350,000

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 1
Prior Request Priority: 5
Prior Request Amount: \$300,000

Recommended FY2011 funding:
 \$300,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00767	Project Name: Water Reloc., Adjustments & Crossings
Department: Public Utilities-Water	Department Priority: 6
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Adjust existing water lines and extend new water lines necessary for coordination with road and drainage projects. Design and construct water relocations, adjustments and crossings that are part of County and State road projects and County drainage projects.

Purpose and Need

Road projects by DPW and VDOT require that existing water mains be adjusted or relocated to coordinate with project requirements. Water mains are extended with construction of new roads in accordance with the utility overall master plan. Project requirements are determined using the overall master utility plan. Construction with the DPW road project will minimize future impacts on the roadway.

History and Current Status

Ongoing project. Funding request remains the same as in last fiscal year's CIP submission at \$200,000 annually.

Location

Countywide

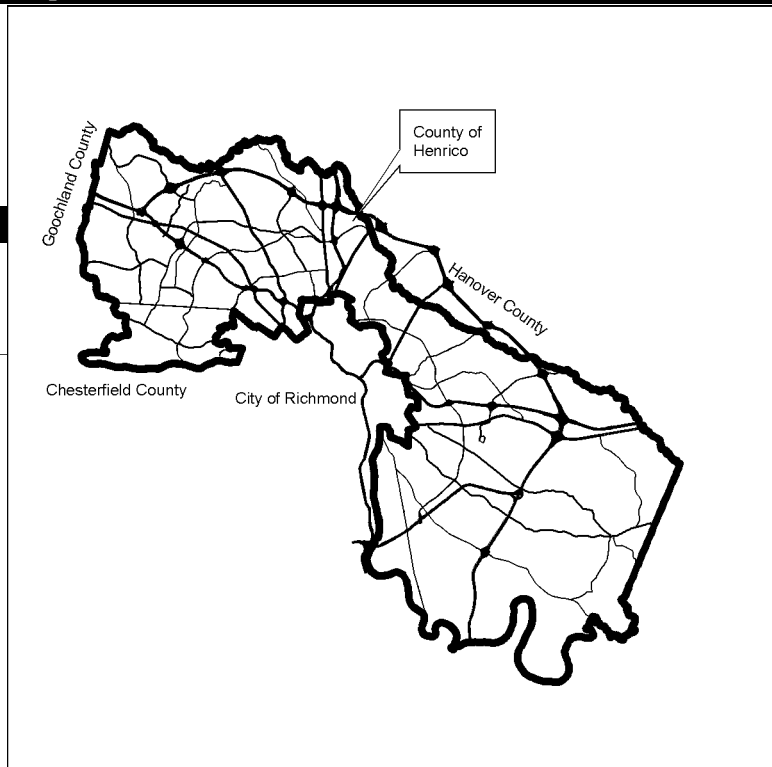
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	200,000	200,000	200,000	200,000	200,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year:	Year 1
Prior Request Priority:	6
Prior Request Amount:	\$200,000

Recommended FY2011 funding:
\$200,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00811	Project Name: Information Technology Projects
Department: Public Utilities-Water	Department Priority: 7
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Develop and implement current technology to improve utility services. Study, design and purchase of technology equipment and software that support a public utility, including customer information, maintenance management, electronic utility mapping and industrial pretreatment programs.

Purpose and Need

This project will implement various technology projects identified in the Engineering and Technology Master Plan to support the effective management and operation of the utility system.

History and Current Status

Ongoing project. Funding based on projected schedules and estimates. Schedule submitted in prior year CIP: FY2011 - \$1,000,000; FY2012 - \$2,000,000; FY2013 - \$2,000,000; FY2014 - \$2,000,000.

Location

Countywide

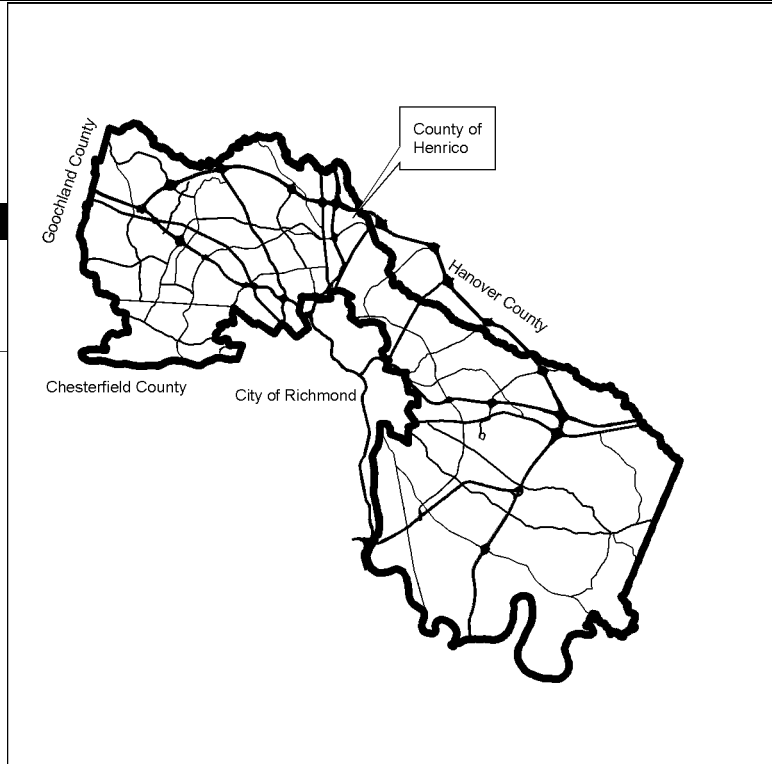
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	200,000	100,000	100,000	100,000	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	800,000	400,000	400,000	400,000	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$1,000,000	\$500,000	\$500,000	\$500,000	\$0

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year:	Year 2
Prior Request Priority:	3
Prior Request Amount:	\$1,000,000

Recommended FY2011 funding:
\$1,000,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00776	Project Name: Water Treatment Plant Expansion
Department: Public Utilities-Water	Department Priority: 8
Project Type: Water	Fiscal Year: 2011
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Expand Water Treatment Facility from 55 MGD to 80 MGD. Design and construct new raw water pumps, finished water pumps, motors, valves and piping to provide additional treated water as demand increases.

Purpose and Need

Expansion of the Water Treatment Plant is needed to meet the demand growth projections. The need for this project was identified in the master utility plan.

History and Current Status

Water Treatment Plant began operating in April 2004. Schedule submitted in prior year CIP: FY10 - \$1,500,000; FY11 - \$1,200,000; FY12 - \$800,000. Funding based on construction cost estimate necessary to comply with expanded VDH regulations.

Location

Three Chopt and Gaskins Rd.

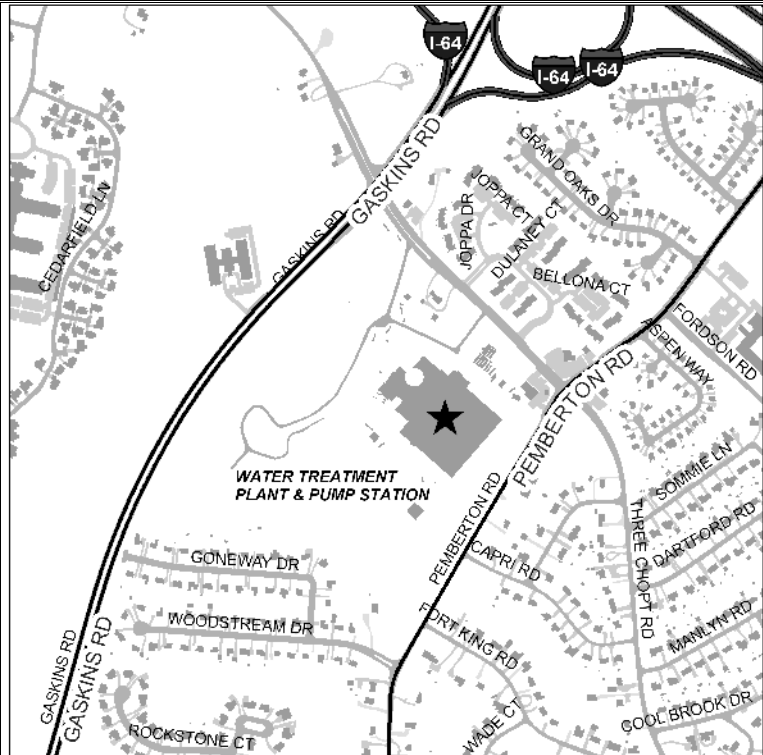
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	200,000	150,000	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	1,000,000	650,000	0	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$1,200,000	\$800,000	\$0	\$0	\$0

Estimated Operating Costs

	Map
FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year:	Year 1
Prior Request Priority:	9
Prior Request Amount:	\$1,500,000

Recommended FY2011 funding:
\$1,200,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06456	Project Name: New Market Water Pressure Zone
Department: Public Utilities-Water	Department Priority: 9
Project Type: Water	Fiscal Year: 2011
District: Varina	Revenue Source: Enterprise Funds

Description and Scope

Design and construct a new 16" pressure reducing valve in Buffin Road near I-295.

Purpose and Need

Required to create a New Market Water Pressure Zone to provide increased water supply pressures to customers within the proposed zone. Recommended by the Greeley & Hansen Water & Sewer Facility Plan - July 2007.

History and Current Status

Schedule submitted in prior year CIP: FY2011 - \$262,890. Funding based on construction cost estimates for July 2008 ENR Index.

Location

Buffin Road at I-295.

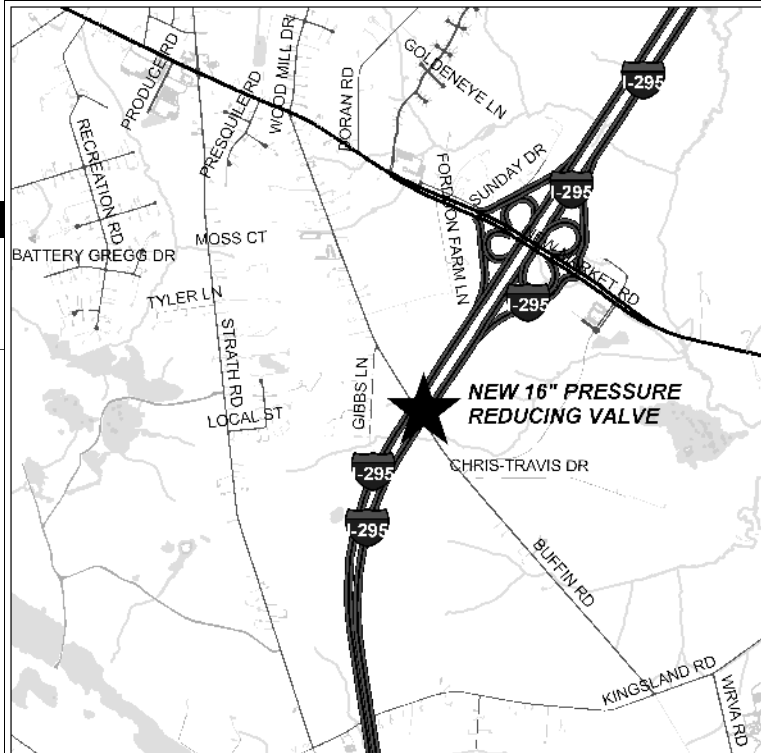
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	40,000	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	222,890	0	0	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$262,890	\$0	\$0	\$0	\$0

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 2
Prior Request Priority: 6
Prior Request Amount: \$262,890

Recommended FY2011 funding:
 \$262,890

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06125 **Project Name:** Cobbs Creek (Cumberland) Reservoir
Department: Public Utilities-Water **Department Priority:** 1
Project Type: Water **Fiscal Year:** 2012
District: Countywide **Revenue Source:** Enterprise Funds

Description and Scope

Permit, design, and construct a water storage reservoir in Cumberland County. When flows in the James River decrease, flows from the reservoir will be released to augment water supply.

Purpose and Need

This project is necessary to ensure that adequate water supply is available from the James River to allow supply of treated water to Henrico as long term demands increase.

History and Current Status

The budget, as established in this CIP schedule, reflects Henrico County ownership of the Cobbs Creek Reservoir. Funding requests have not been increased. Schedule has been revised to reflect current ongoing discussions. Schedule submitted in prior year CIP: FY11 - \$2,650,000; FY12 - \$26,320,000; FY13 - \$2,650,000; FY14 - \$136,386,000.

Location

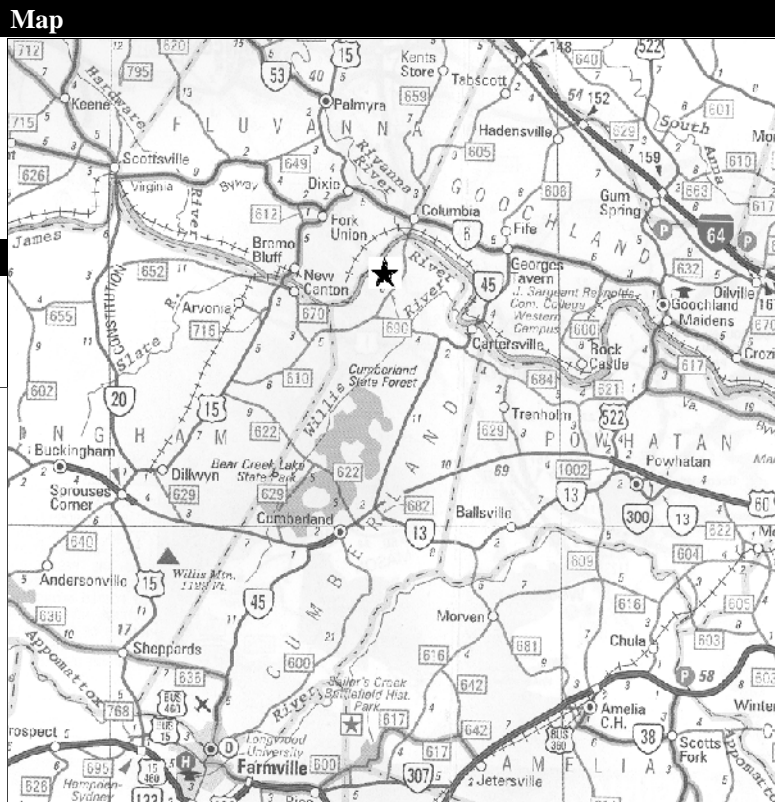
Cumberland County

Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	2,650,000	26,320,000	2,650,000	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	0	0	136,386,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$2,650,000	\$26,320,000	\$2,650,000	\$136,386,000

Estimated Operating Costs

	Map
FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0



Notes

Prior Request Year:	Year 2
Prior Request Priority:	1
Prior Request Amount:	\$2,650,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00774 **Project Name:** Beverly Hills Area Water Rehabilitation
Department: Public Utilities-Water **Department Priority:** 2
Project Type: Water **Fiscal Year:** 2012
District: Tuckahoe **Revenue Source:** Enterprise Funds

Description and Scope

Upgrade existing water distribution system by replacing existing 2" plastic pipe with 13,550' of 6" water mains. Relocate meters from rear to the front of properties. Provide fire hydrants in area.

Purpose and Need

The existing water distribution system will be upgraded to current County standards as part of an overall program to rehabilitate existing water mains. The existing mains are deteriorated and undersized. Capacity needs and continuing maintenance requirements for these lines indicate that replacement is required.

History and Current Status

Schedule submitted in prior year CIP: FY2012 - \$1,035,000; FY2013 - \$5,796,000. Funding based on construction cost estimate for July 2008 Engineering News Record (ENR) Index.

Location

Beverly Hills Area

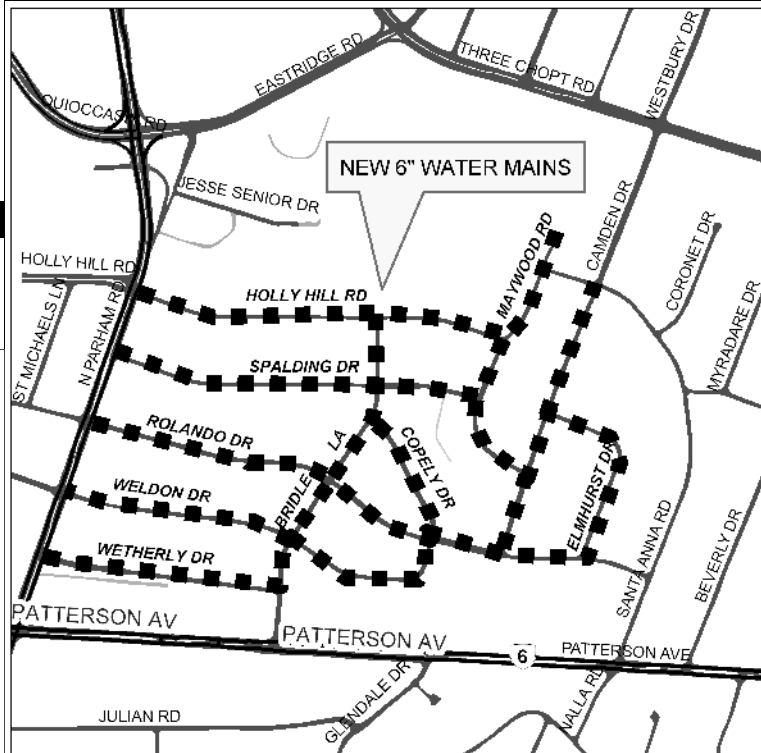
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	1,035,000	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	5,796,000	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$1,035,000	\$5,796,000	\$0	\$0

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 2
Prior Request Priority: 2
Prior Request Amount: \$1,035,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06119 **Project Name:** Laburnum Avenue Water Booster Station
Department: Public Utilities-Water **Department Priority:** 3
Project Type: Water **Fiscal Year:** 2012
District: Fairfield **Revenue Source:** Enterprise Funds

Description and Scope

Provide a 7.7 million gallon per day water pressure booster station on Laburnum Avenue near the Henrico County line at the City of Richmond Corporate Boundary.

Purpose and Need

The water pressure booster station is needed to supply water to the combined Greater Hermitage and Laburnum/Azalea pressure zones. The need for this project was determined through analysis of the County's hydraulic model that simulates current and future flow projections and operation conditions. Recommended by the Greeley & Hansen Water & Sewer Facility Plan - July 2007.

History and Current Status

Schedule submitted in prior year CIP: FY2012 - \$621,000; FY2013 - \$2,136,240. Funding is based on project cost estimate for July 2008 Engineering News Record (ENR) Index. FY2012 funding represents design and FY2013 funding represents construction.

Location

Laburnum Avenue near the City of Richmond

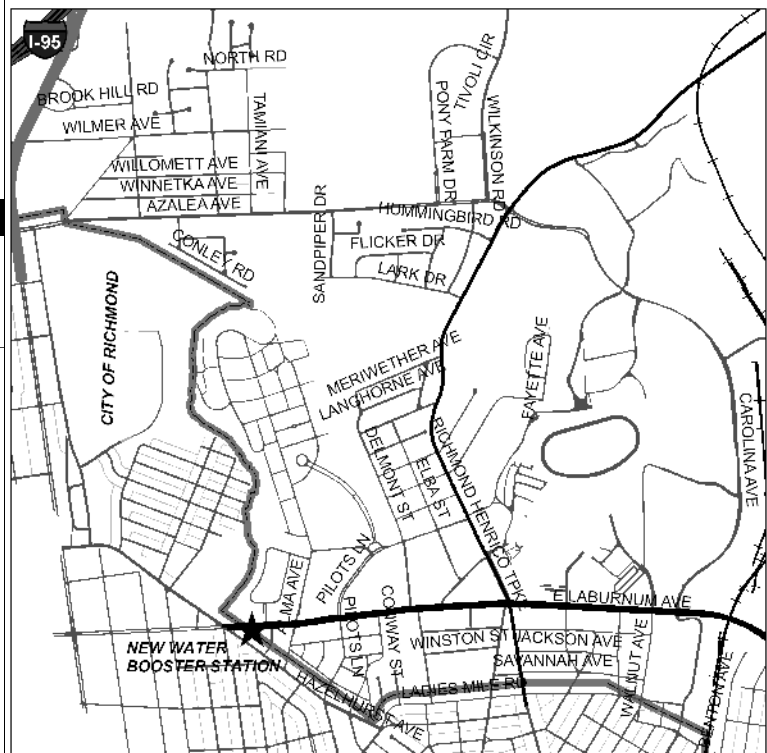
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	621,000	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	2,136,240	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$621,000	\$2,136,240	\$0	\$0

Estimated Operating Costs

	Map
FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 3
Prior Request Priority: 1
Prior Request Amount: \$621,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06382 **Project Name:** Creighton Road Water Line
Department: Public Utilities-Water **Department Priority:** 4
Project Type: Water **Fiscal Year:** 2012
District: Fairfield **Revenue Source:** Enterprise Funds

Description and Scope

Design and construct approximately 4,000' of 12" water main in Creighton Road from Richmond-Henrico line to existing 12" water main near Stone Dale Drive with the DPW road project to widen Creighton Road to a four-lane, divided roadway between the Richmond-Henrico line to North Laburnum Avenue.

Purpose and Need

Water mains are extended with construction of new roads in accordance with the utility master plan. The requirements for this project were determined through analysis of the County's Hydraulic Water Model that simulates current and future flow projections and operating conditions. Construction with the DPW road project will minimize future impacts on the roadway.

History and Current Status

Schedule submitted in prior year CIP: FY2011 - \$950,000. Project schedule will be coordinated with DPW road project. Construction to begin in FY2012.

Location

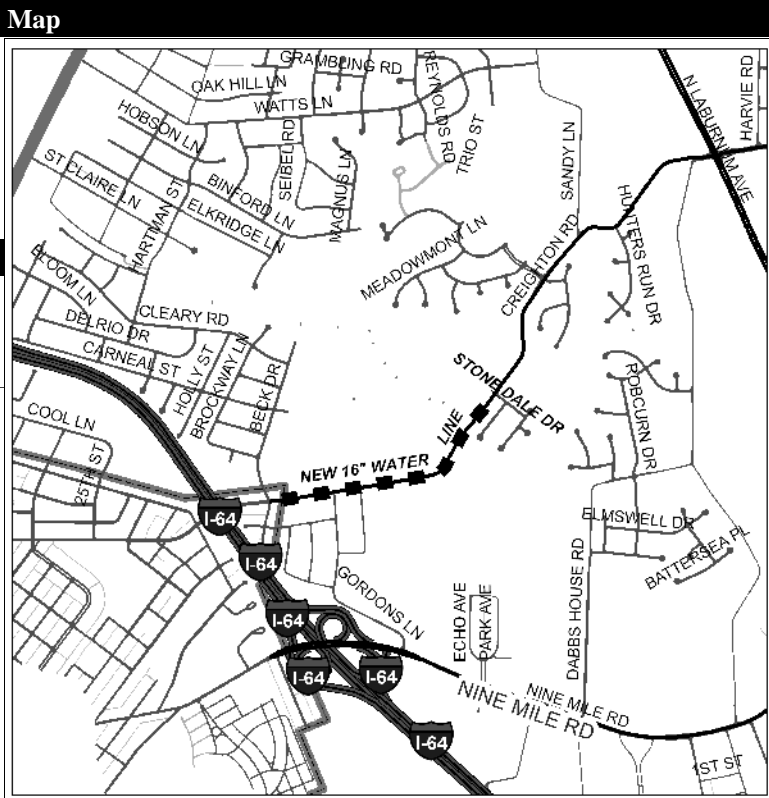
Creighton Road

Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	950,000	0	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$950,000	\$0	\$0	\$0

Estimated Operating Costs

	Map
FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0



Notes

Prior Request Year: Year 2
Prior Request Priority: 5
Prior Request Amount: \$950,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06383	Project Name: Dabbs House Road Water Line
Department: Public Utilities-Water	Department Priority: 5
Project Type: Water	Fiscal Year: 2012
District: Varina	Revenue Source: Enterprise Funds

Description and Scope

Design and construct approximately 3,100' of 12" water main in Dabbs House Road to close gaps between existing portions of 12" water main in conjunction with the DPW road project to widen and realign Dabbs House Road from Nine Mile Road to Creighton Road. Also, there will be various relocations and adjustments of water mains at drainage structures, fire hydrants and water services.

Purpose and Need

Water mains are extended with construction of new roads in accordance with the utility master plan. The requirements for this project were determined through analysis of the County's Hydraulic Water Model that simulates current and future flow projections and operating conditions. Construction with the DPW road project will minimize future impacts on the roadway.

History and Current Status

Schedule submitted in prior year CIP: FY2012 - \$600,000. Schedule will be coordinated with DPW road project. Construction to begin in FY2012.

Location

Dabbs House Road

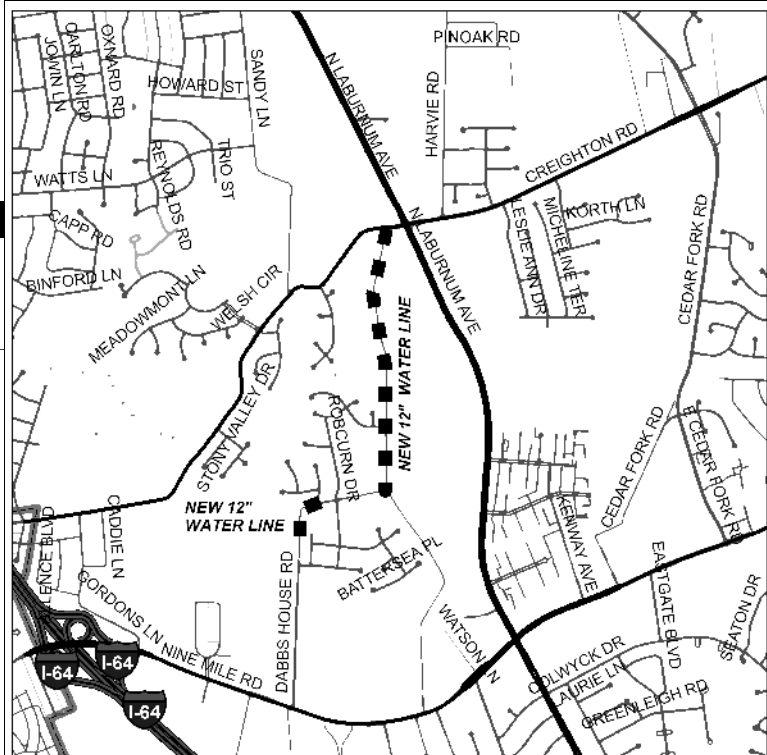
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	500,000	0	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$500,000	\$0	\$0	\$0

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year:	Year 3
Prior Request Priority:	2
Prior Request Amount:	\$600,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06515	Project Name: Water Transmission Mains Ph 2
Department: Public Utilities-Water	Department Priority: 1
Project Type: Water	Fiscal Year: 2013
District: B, F, V	Revenue Source: Enterprise Funds

Description and Scope

Install 70,800' (13.4 miles) of 16", 24", 36" and 48" water transmission lines necessary to extend the County water supply to eastern Henrico.

Purpose and Need

Scope of project determined by engineering studies and hydraulic modeling. Recommended by Greeley & Hansen Water and Sewer Facility Plan - July 2007.

History and Current Status

Project was initially defined as part of the Water Transmission Mains analysis in 2001. Current schedule determined by the July 2007 Facility Plan. Project design is requested to begin in FY2013. Funding is based on project cost estimate for July 2008 Engineering News Record (ENR) Index.

Location

Various

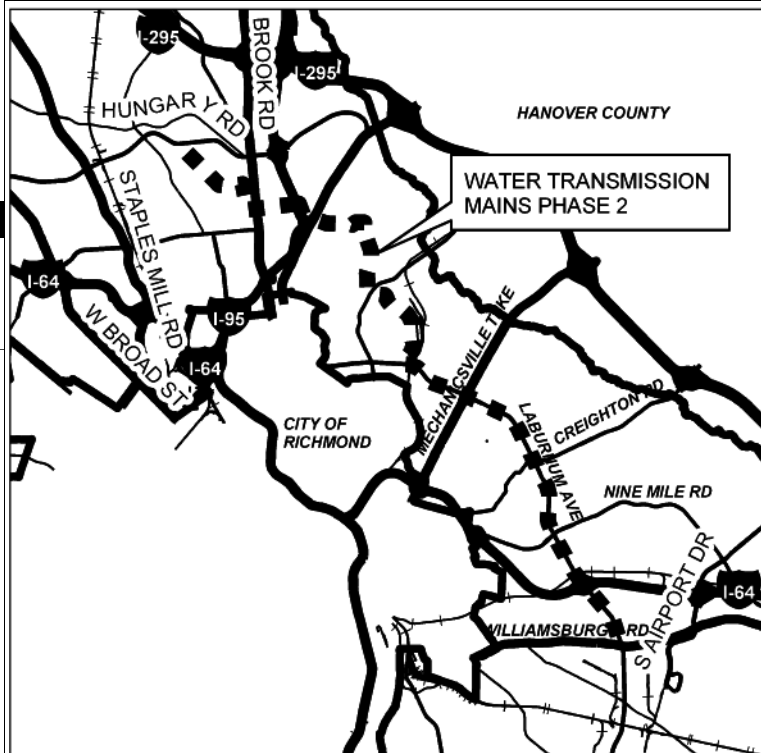
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	14,490,000	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	0	0	83,317,500
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$0	\$14,490,000	\$0	\$83,317,500

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 4
Prior Request Priority: 1
Prior Request Amount: \$14,490,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00810	Project Name: Water Meter AMR & Replacement Prog.
Department: Public Utilities-Water	Department Priority: 2
Project Type: Water	Fiscal Year: 2013
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Implement replacement program for existing water meters and upgrade meter reading system to automated meter reading system.

Purpose and Need

Replacement of older meters is needed to improve accuracy of water meter readings. Newer technology for meter reading will improve operational efficiency and provide capability for service improvements.

History and Current Status

Schedule submitted in prior year: FY2010 - \$3,000,000; FY2013 - \$3,000,000. Funding based on current contract and project schedule.

Location

Countywide

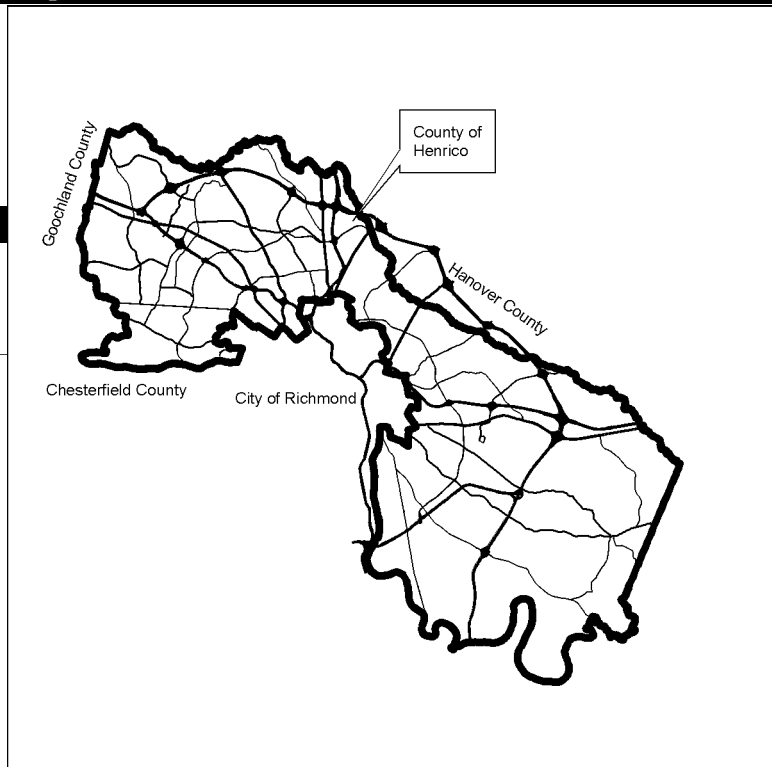
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	3,000,000	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$0	\$3,000,000	\$0	\$0

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 1
Prior Request Priority: 7
Prior Request Amount: \$3,000,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 00812	Project Name: Fire Flow Enhancement Program
Department: Public Utilities-Water	Department Priority: 3
Project Type: Water	Fiscal Year: 2013
District: Countywide	Revenue Source: Enterprise Funds

Description and Scope

Provide fire protection in developed areas previously served by private water systems. Design and construct water main and fire hydrants in accordance with current standards.

Purpose and Need

The County provides fire protection to areas served by private water systems and to improve fire protection in areas currently served by County water.

History and Current Status

Ongoing project. Schedule submitted in prior year CIP: FY2010 - \$1,500,000; FY2011 - \$1,000,000; FY2012 - \$1,000,000; FY2013 - \$1,000,000; FY2014 - \$1,000,000. Funding based on construction cost estimate for July 2008 Engineering News Record (ENR) Index.

Location

Countywide

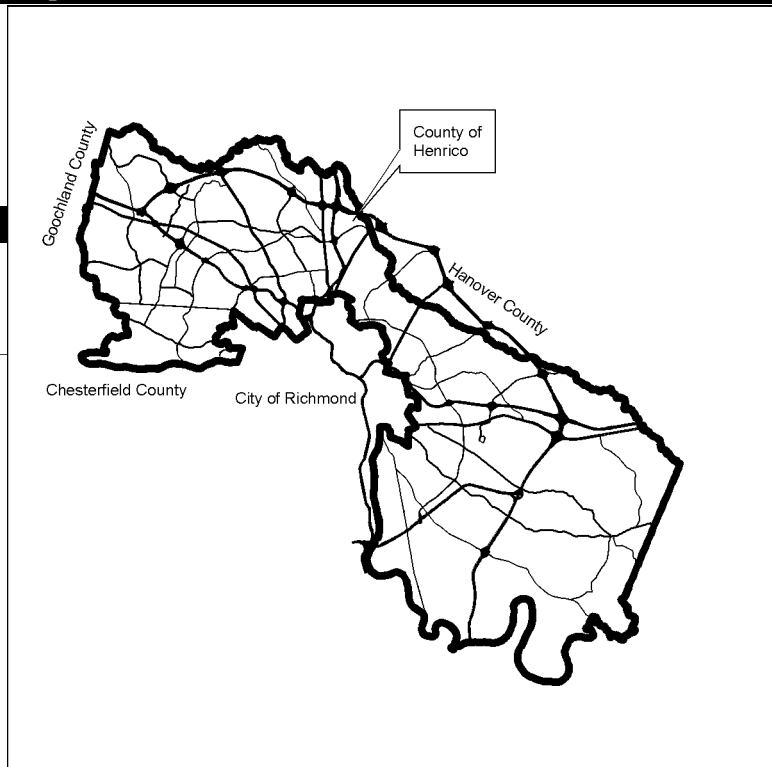
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	300,000	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	1,200,000	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$0	\$1,500,000	\$0	\$0

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 1
Prior Request Priority: 8
Prior Request Amount: \$1,500,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06513	Project Name: Kain Road Area WPS & Tank
Department: Public Utilities-Water	Department Priority: 1
Project Type: Water	Fiscal Year: 2014
District: Three Chopt	Revenue Source: Enterprise Funds

Description and Scope

Design and construct a water pumping station and 3 MG of water storage. The requested project proposes design to begin in FY2014 and construction in FY2015.

Purpose and Need

The Kain Road WPS will service a proposed Shady Grove Water Pressure Zone. The initial station will have 3 MG of ground storage. The tank and pump station are needed to meet future capacity needs of the area.

History and Current Status

Schedule submitted in prior year CIP: FY2014 - \$1,035,000. Funding based on project cost estimates for July 2008 ENR Index.

Location

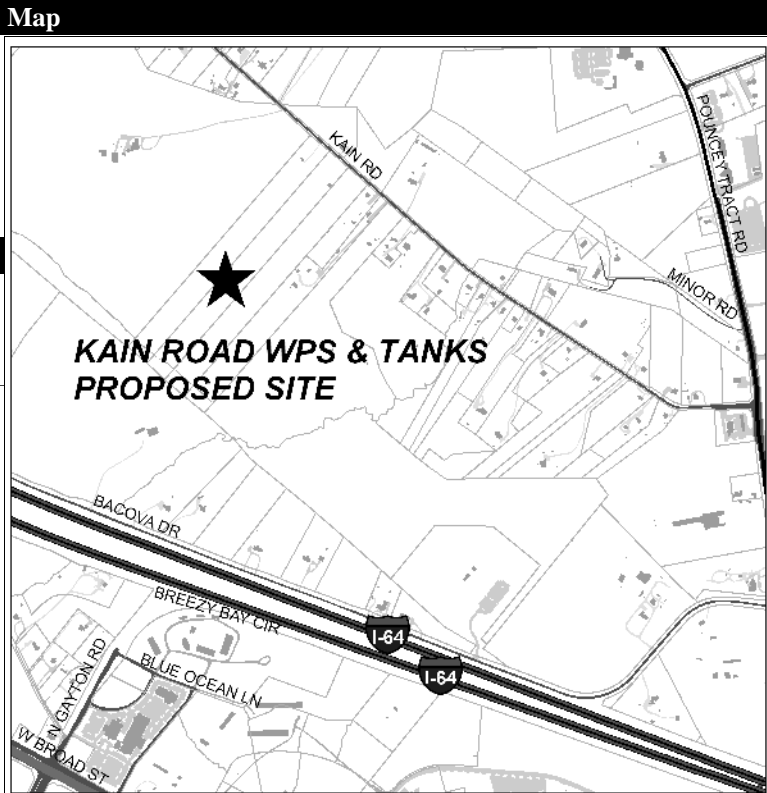
Kain Road

Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	700,000	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	0	335,000	2,674,440
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$0	\$0	\$1,035,000	\$2,674,440

Estimated Operating Costs

	Map
FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0



Notes

Prior Request Year:	Year 5
Prior Request Priority:	1
Prior Request Amount:	\$1,035,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06118	Project Name: Sadler Road 12" Water Line
Department: Public Utilities-Water	Department Priority: 1
Project Type: Water	Fiscal Year: 2015
District: Three Chopt	Revenue Source: Enterprise Funds

Description and Scope

Design and construct approximately 5,600' of 12" water main with widening of Sadler Road.

Purpose and Need

Water mains are extended with construction of new roads in accordance with the utility master plan. Construction with the DPW road project will minimize future impacts on the roadway.

History and Current Status

Schedule submitted in prior year CIP: FY2013 - \$1,700,000. Funding based on current construction cost estimate. Schedule coordinated with DPW construction schedule.

Location

Sadler Road from Old Sadler Rd. to Sadler Grove Rd.

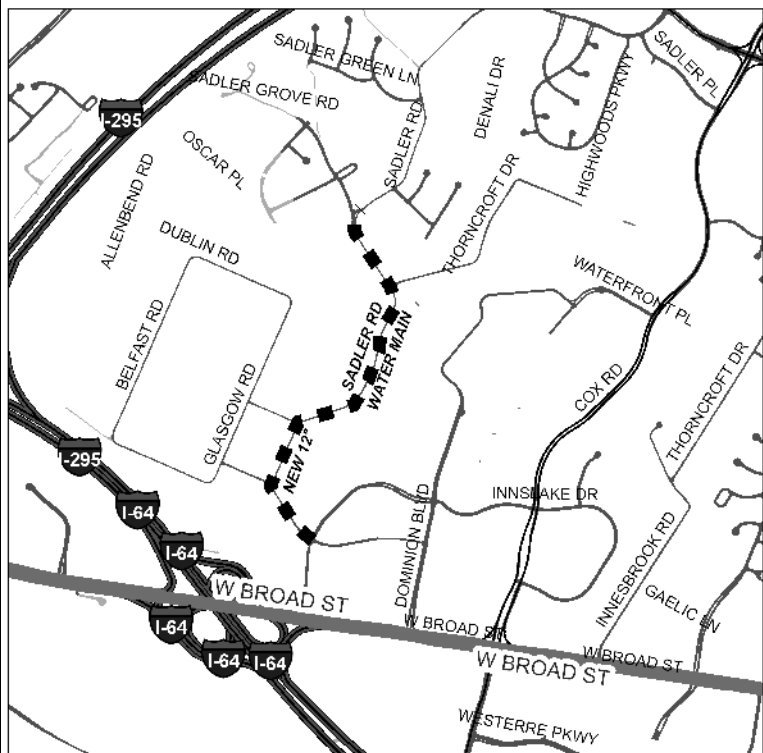
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	0	0	1,700,000
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$0	\$0	\$0	\$1,700,000

Estimated Operating Costs

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0

Map



Notes

Prior Request Year: Year 4
Prior Request Priority: 2
Prior Request Amount: \$1,700,000

Capital Improvement Program

FY2010/11 - FY2014/15 - Fund -51 -Enterprise Fund - W&S

Project No: 06570	Project Name: Shady Grove Area Water Supply Main
Department: Public Utilities-Water	Department Priority: 2
Project Type: Water	Fiscal Year: 2015
District: Three Chopt	Revenue Source: Enterprise Funds

Description and Scope

Design and construct 30" diameter supply and discharge water mains to the Kain Road WPS.

Purpose and Need

The Kain Road WPS is needed to maintain pressure within the Shady Grove pressure zone at 45 psi.

History and Current Status

This is a new project request.

Location

Kain Road

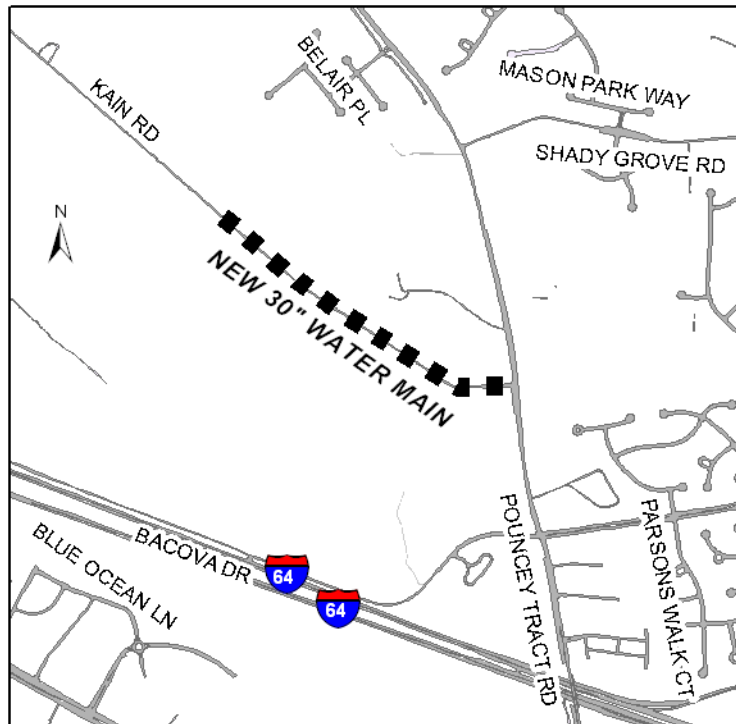
Capital Expenditures

	FY2011	FY2012	FY2013	FY2014	FY2015
Planning and Design	0	0	0	0	776,250
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	0	0	0	0
Direct Equipment	0	0	0	0	0
Direct Material	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	\$0	\$0	\$0	\$0	\$776,250

Estimated Operating Costs

Map

FY2011	\$0
FY2012	\$0
FY2013	\$0
FY2014	\$0
FY2015	\$0



Notes

Prior Request Year:	New
Prior Request Priority:	New
Prior Request Amount:	\$0