CAPITAL IMPROVEMENT PROGRAM

FY 2014-15 THROUGH FY 2018-19

PUBLIC UTILITIES - WATER

FUND 51
ENTERPRISE FUND - PUBLIC UTILITIES

Prepared by: OMB February, 2014

County of Henrico, Virginia

Capital Improvement Program
FY 2014-15 through FY 2018-19

Public Utilities - Water

Fund 51 Enterprise Fund - W&S

Project/Work Phase		Priority	Request FY 14-15	Request FY15-16	Request FY 16-17	Request FY 17-18	Request FY 18-19	Total Five Year
00771	New Water Connections	1	50,000	50,000	50,000	50,000	50,000	250,000
00770	Water Line Extensions	2	300,000	300,000	300,000	300,000	300,000	1,500,000
00768	Water Line Rehabilitation	3	5,000,000	5,000,000	3,000,000	2,000,000	3,000,000	18,000,000
00769	Water Pumping Station Improvements	4	750,000	2,700,000	600,000	75,000	1,750,000	5,875,000
00780	Water Meters	5	350,000	350,000	350,000	350,000	350,000	1,750,000
00767	Water Reloc., Adjustments & Crossings	6	200,000	200,000	200,000	200,000	200,000	1,000,000
00811	Information Technology Projects	7	5,000,000	0	0	0	0	5,000,000
06125	Cobbs Creek (Cumberland) Reservoir	8	20,000,000	140,000,000	0	0	0	160,000,000
06382	Creighton Road Water Line	1	0	950,000	0	0	0	950,000
06383	Dabbs House Road Water Line	2	0	600,000	0	0	0	600,000
06118	Sadler Road 12" Water Line	1	0	0	1,700,000	0	0	1,700,000
06513	Bacova Road PS & Tank	1	0	0	0	1,250,000	3,200,000	4,450,000
06515	Water Transmission Mains Ph 2	1	0	0	0	0	14,000,000	14,000,000
Total			**31,650,000**	**150,150,000**	**6,200,000**	**4,225,000**	**22,850,000**	**215,075,000**

Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

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.

History and Current Status

Ongoing project. Funding remains at $50,000 per year to reflect current demands.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	50,000	50,000	50,000	50,000	50,000
Direct Equipment	0	0	0	0	0
Vehicle Replacement	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	**$50,000**	**$50,000**	**$50,000**	**$50,000**	**$50,000**

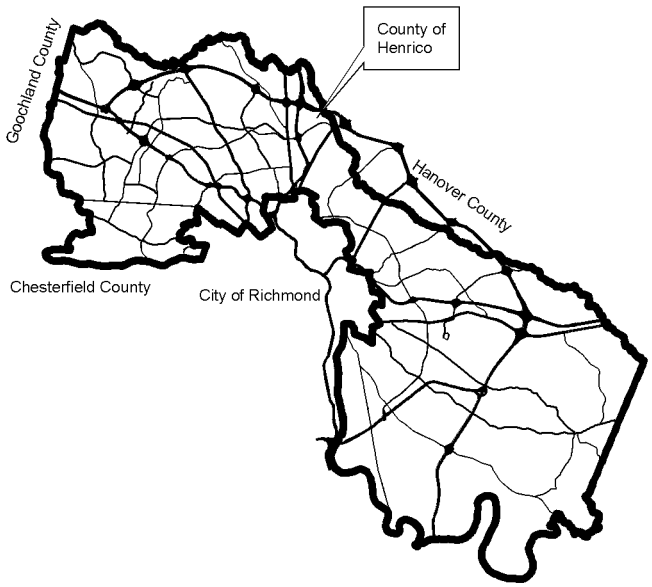
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

Prior Request Year:	Year 1
Prior Request Priority:	1
Prior Request Amount:	$50,000

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

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.

History and Current Status

Ongoing project. Funding remains at $300,000 annually to reflect current demands.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	300,000	300,000	300,000	300,000	300,000
Direct Equipment	0	0	0	0	0
Vehicle Replacement	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**	**$300,000**	**$300,000**	**$300,000**	**$300,000**

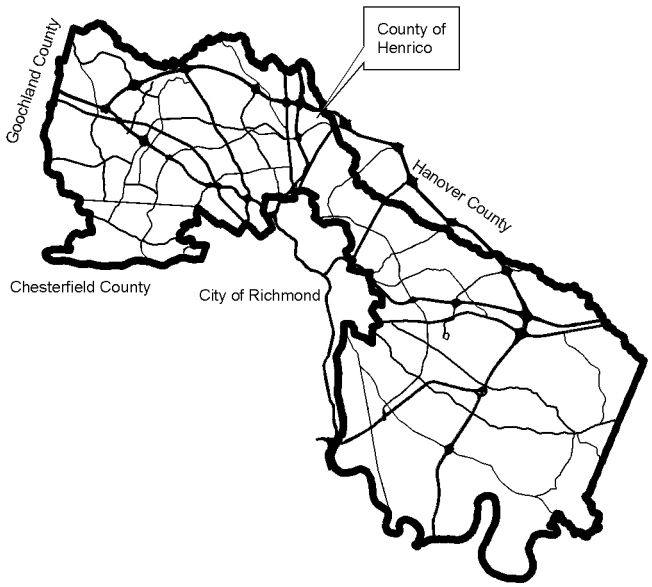
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

Prior Request Year:	Year 1
Prior Request Priority:	2
Prior Request Amount:	$300,000

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

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: FY2015 - $5,000,000; FY2016 - $5,000,000; FY2017 - $3,000,000; FY2018 - $2,000,000. Funding is unchanged. Funding is planned to increase over time as the existing water system ages.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	750,000	750,000	500,000	250,000	500,000
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	4,250,000	4,250,000	2,500,000	1,750,000	2,500,000
Direct Equipment	0	0	0	0	0
Vehicle Replacement	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	**$5,000,000**	**$5,000,000**	**$3,000,000**	**$2,000,000**	**$3,000,000**

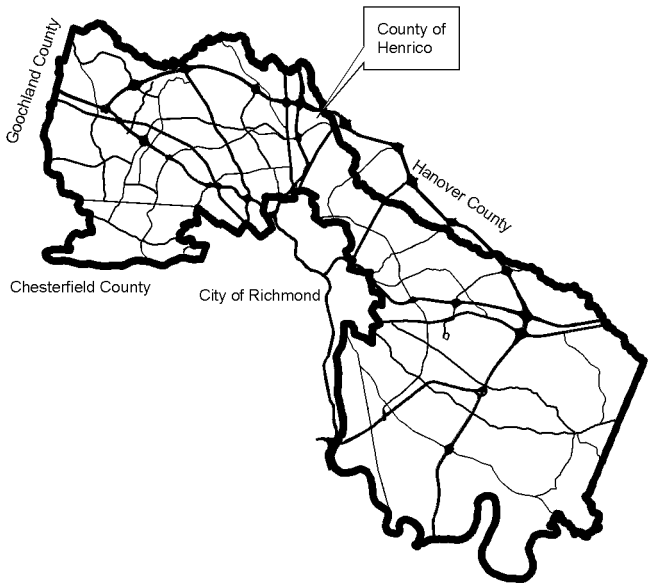
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

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

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Revenue Bonds**

Description and Scope

Design and construct improvements and major repairs at existing water pumping stations necessary to upgrade and repair the system's water pumping stations.

Purpose and Need

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

History and Current Status

Ongoing project. Schedule submitted in prior year CIP: FY2015 - $750,000; FY2016 - $2,700,000; FY2017 - $600,000; FY2018 - $75,000. Funding in FY2015 is for design and FY2016 is for construction to replace emergency power generators and upgrade SCADA at Mountain Road WPS and Robin Avenue WPS. Funding in FY2017 is for tank painting and improvements at Elko WPS.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	750,000	0	100,000	0	300,000
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	0	2,700,000	500,000	75,000	1,450,000
Direct Equipment	0	0	0	0	0
Vehicle Replacement	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	**$750,000**	**$2,700,000**	**$600,000**	**$75,000**	**$1,750,000**

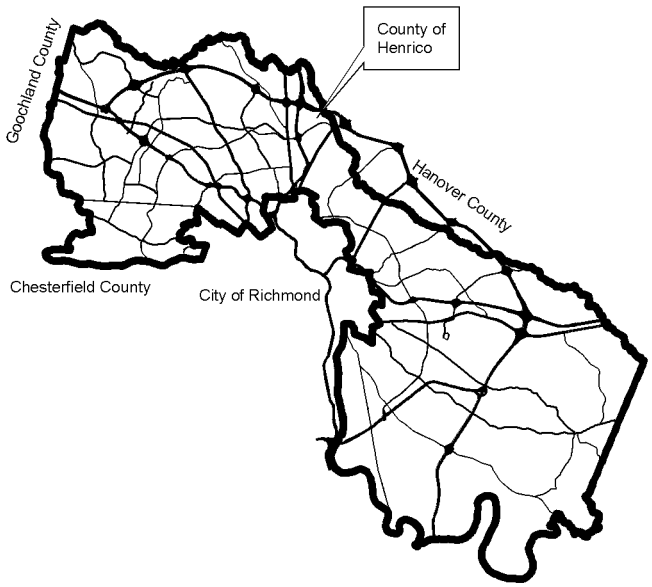
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

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

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

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 with meter interface units provided for AMR (automated meter reading). Schedule submitted in prior year CIP: FY2015 - $350,000; FY2016 - $350,000; FY2017 - $350,000; FY2018 - $350,000.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	350,000	350,000	350,000	350,000	350,000
Direct Equipment	0	0	0	0	0
Vehicle Replacement	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	**$350,000**	**$350,000**	**$350,000**	**$350,000**	**$350,000**

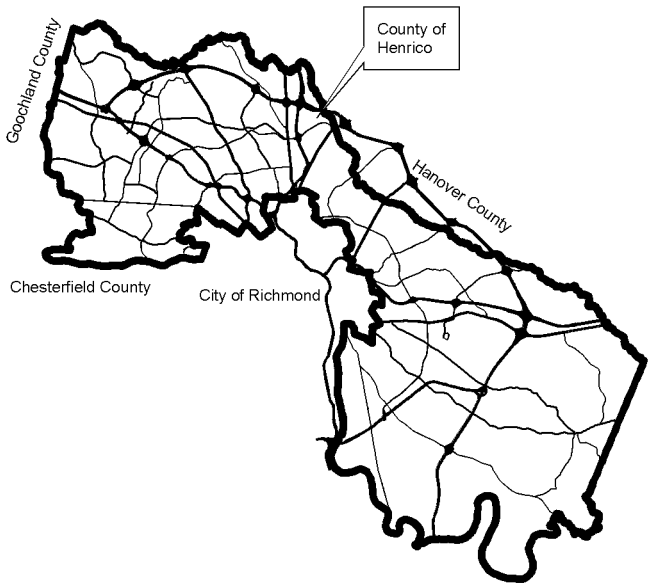
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

Prior Request Year:	Year 1
Prior Request Priority:	5
Prior Request Amount:	$350,000

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

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 at $200,000 annually.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
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
Vehicle Replacement	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**

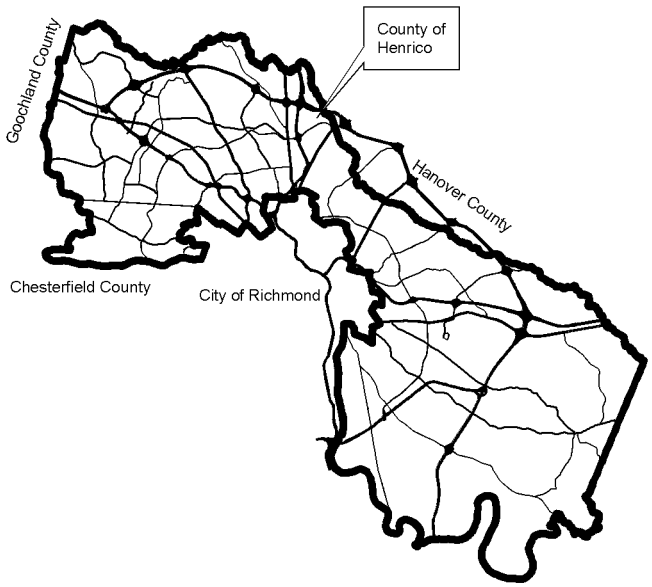
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

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

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - 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:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

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 FY2014 - $500,000. Funding in FY2015 is for implementation of Phase 1 of a new SCADA system.

Location

Countywide

Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	750,000	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	4,250,000	0	0	0	0
Direct Equipment	0	0	0	0	0
Vehicle Replacement	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	**$5,000,000**	**$0**	**$0**	**$0**	**$0**

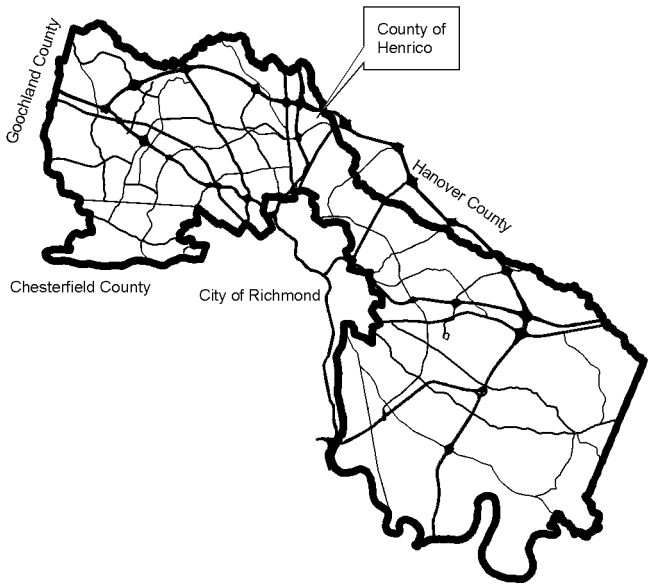
Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Notes

Prior Request Year:	Year 1
Prior Request Priority:	7
Prior Request Amount:	$500,000

Map



Capital Improvement Program
FY2014/15 - FY2018/19 - Fund 51 Enterprise Fund - W&S

Project No:	**06125**	**Project Name:**	**Cobbs Creek (Cumberland) Reservoir**
Department:	**Public Utilities - Water**	**Department Priority:**	**8**
Project Type:	**Water**	**Fiscal Year:**	**2015**
District:	**Countywide**	**Revenue Source:**	**Enterprise Fund**

Description and Scope

Permit, design, and construct a water storage reservoir in Cumberland County. The construction of the reservoir will provide adequate water supply when flows in the James River decrease. Water flows from the reservoir will be released to augment river flows.

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 and to protect aquatic resources and uses in the James River.

History and Current Status

Schedule submitted in prior year CIP: FY2015 - $160,000,000. Funding request reflects current project schedule.

Location

Cumberland County

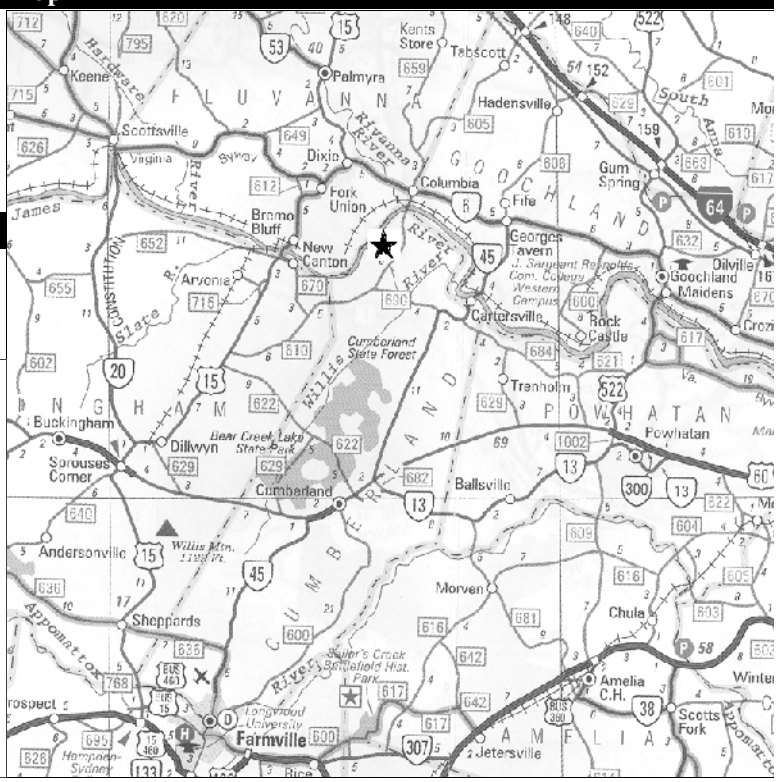
Capital Expenditures

	FY2015	FY2016	FY2017	FY2018	FY2019
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	20,000,000	140,000,000	0	0	0
Direct Equipment	0	0	0	0	0
Vehicle Replacement	0	0	0	0	0
Other project Costs	0	0	0	0	0
Furniture and Fixtures	0	0	0	0	0
Total Request	**$20,000,000**	**$140,000,000**	**$0**	**$0**	**$0**

Estimated Operating Costs

FY2015	$0
FY2016	$0
FY2017	$0
FY2018	$0
FY2019	$0

Map



Notes

Prior Request Year:	Year 2
Prior Request Priority:	1
Prior Request Amount:	

Recommended FY2015 funding:

$20,000,000