

*County of Henrico, Virginia*  
**Capital Improvement Program**  
**FY 2017-18 through FY 2021-22**

**Public Utilities - Water**

Fund 51 Enterprise Fund - W&S

Project/Work Phase		Priority	Request FY 17-18	Request FY18-19	Request FY 19-20	Request FY 20-21	Request FY 21-22	Total Five Year
00771	New Water Connections	1	100,000	100,000	100,000	100,000	100,000	500,000
00770	Water Line Extensions	2	300,000	300,000	300,000	300,000	300,000	1,500,000
00768	Water Line Rehabilitation	3	2,000,000	3,000,000	3,000,000	3,000,000	6,000,000	17,000,000
00769	Water Pumping Station Improvements	4	3,400,000	1,100,000	775,000	500,000	500,000	6,275,000
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
08171	Water Treatment Facility Improvements	7	100,000	100,000	100,000	100,000	100,000	500,000
00811	Information Technology Projects	1	0	15,000,000	0	0	0	15,000,000
06118	Sadler Road 12" Water Line	1	0	0	0	0	1,800,000	1,800,000
08162	Woodman Road Water Line	2	0	0	0	0	1,500,000	1,500,000
06119	Laburnum Ave & Carolina Water Pump Station	3	0	0	0	0	800,000	800,000
<b>Total</b>			<b>6,450,000</b>	<b>20,150,000</b>	<b>4,825,000</b>	<b>4,550,000</b>	<b>11,650,000</b>	<b>47,625,000</b>

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 00771 <b>Department:</b> Public Utilities - Water <b>Project Type:</b> Water <b>District:</b> Countywide	<b>Project Name:</b> New Water Connections <b>Department Priority:</b> 1 <b>Fiscal Year:</b> 2018 <b>Revenue Source:</b> Enterprise Fund
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### 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 \$100,000 per year to reflect current demands.

### Location

Countywide

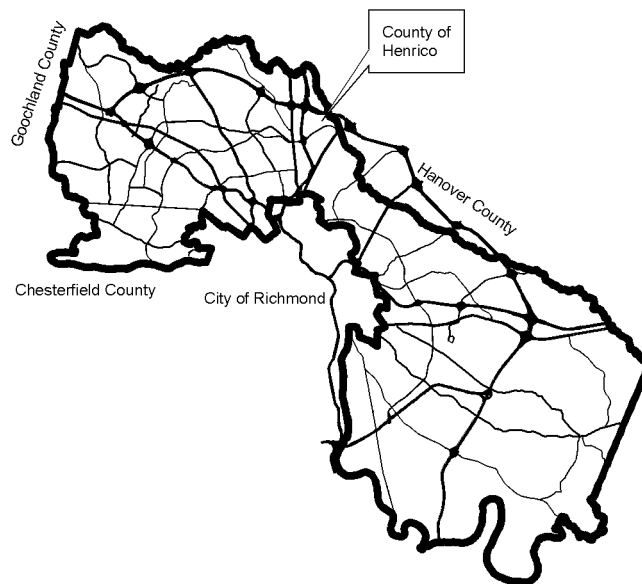
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
Planning and Design	0	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	100,000	100,000	100,000	100,000	100,000
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
<b>Total Request</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>

### Estimated Operating Costs

<b>FY2018</b>	\$0
<b>FY2019</b>	\$0
<b>FY2020</b>	\$0
<b>FY2021</b>	\$0
<b>FY2022</b>	\$0

### Map



### Notes

**Prior Request Year:** Year 1  
**Prior Request Priority:** 1  
**Prior Request Amount:** \$100,000

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 00770 <b>Department:</b> Public Utilities - Water <b>Project Type:</b> Water <b>District:</b> Countywide	<b>Project Name:</b> Water Line Extensions <b>Department Priority:</b> 2 <b>Fiscal Year:</b> 2018 <b>Revenue Source:</b> Enterprise Fund
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### 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

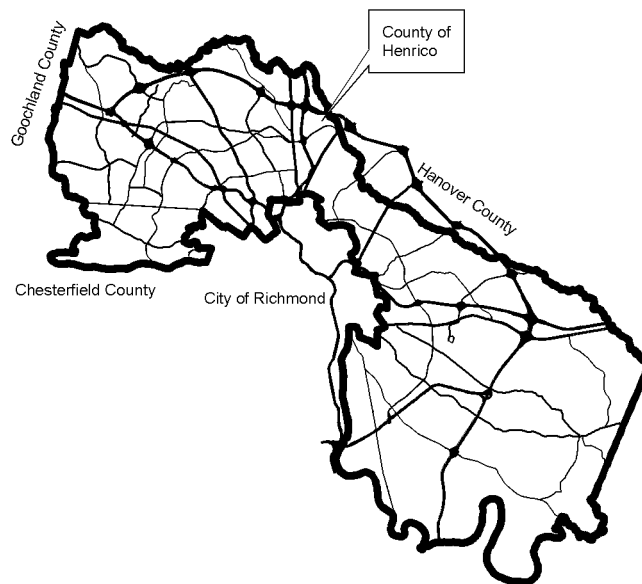
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
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
<b>Total Request</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>

### Estimated Operating Costs

<b>FY2018</b>	\$0
<b>FY2019</b>	\$0
<b>FY2020</b>	\$0
<b>FY2021</b>	\$0
<b>FY2022</b>	\$0

### Map



### Notes

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

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 00768 <b>Department:</b> Public Utilities - Water <b>Project Type:</b> Water <b>District:</b> Countywide	<b>Project Name:</b> Water Line Rehabilitation <b>Department Priority:</b> 3 <b>Fiscal Year:</b> 2018 <b>Revenue Source:</b> Enterprise Fund
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### 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 our asset management system, water break analysis and maintenance records of the existing water distribution system. Project priority for the individual projects is based on severity of problem, maintenance cost, and type of customer issues.

### History and Current Status

Ongoing project. Schedule submitted in prior year: FY2017 - \$5,000,000; FY2018 - \$2,000,000; FY2019 - \$3,000,000; FY2020 - \$5,000,000; FY2021 - \$5,000,000. Funding reflects current project schedules and estimates.

### Location

Countywide

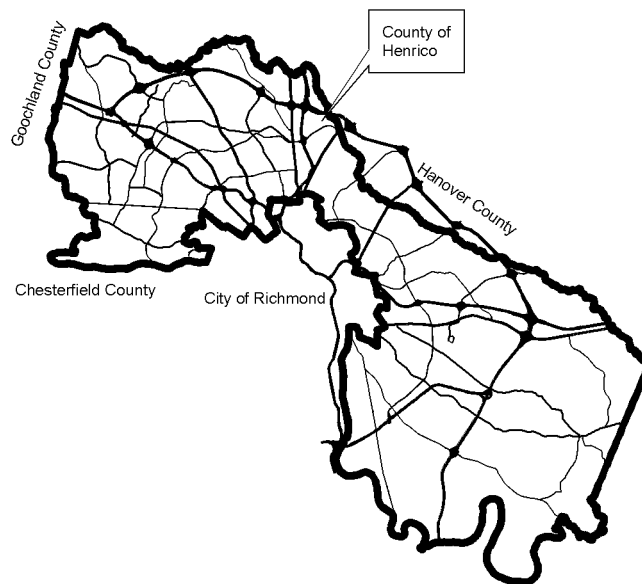
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
<b>Planning and Design</b>	300,000	500,000	500,000	500,000	1,000,000
<b>Land</b>	0	0	0	0	0
<b>Site Improvements</b>	0	0	0	0	0
<b>Construction</b>	1,700,000	2,500,000	2,500,000	2,500,000	5,000,000
<b>Direct Equipment</b>	0	0	0	0	0
<b>Vehicle Replacement</b>	0	0	0	0	0
<b>Other project Costs</b>	0	0	0	0	0
<b>Furniture and Fixtures</b>	0	0	0	0	0
<b>Total Request</b>	<b>\$2,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>	<b>\$6,000,000</b>

### Estimated Operating Costs

<b>FY2018</b>	\$0
<b>FY2019</b>	\$0
<b>FY2020</b>	\$0
<b>FY2021</b>	\$0
<b>FY2022</b>	\$0

### Map



### Notes

**Prior Request Year:** Year 1  
**Prior Request Priority:** 3  
**Prior Request Amount:** \$5,000,000

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 00769	<b>Project Name:</b> Water Pumping Station Improvements
<b>Department:</b> Public Utilities - Water	<b>Department Priority:</b> 4
<b>Project Type:</b> Water	<b>Fiscal Year:</b> 2018
<b>District:</b> Countywide	<b>Revenue Source:</b> Enterprise Fund

### Description and Scope

Design and construct improvements and major repairs at 11 existing water pumping stations. Based on current needs: FY18 is to replace emergency power generators, upgrade SCADA at Mountain Rd., Robin Ave. WPS; FY19 is for improvements at Glen Allen, Shady Grove pump stations; FY20 is for Robin Ave. drainage improvements.

### Purpose and Need

The need for upgrades and repairs to pumping stations is determined from our asset management system, on-going maintenance programs and from the master utility plan. The FY16 request provides funding to support unexpected and/or emergency water pumping station improvements as needed.

### History and Current Status

Ongoing project. Schedule submitted in prior year CIP: FY2017 - \$600,000; FY2018 - \$3,400,000; FY2019 - \$1,100,000; FY2020 - \$775,000; FY2021 - \$500,000.

### Location

Countywide

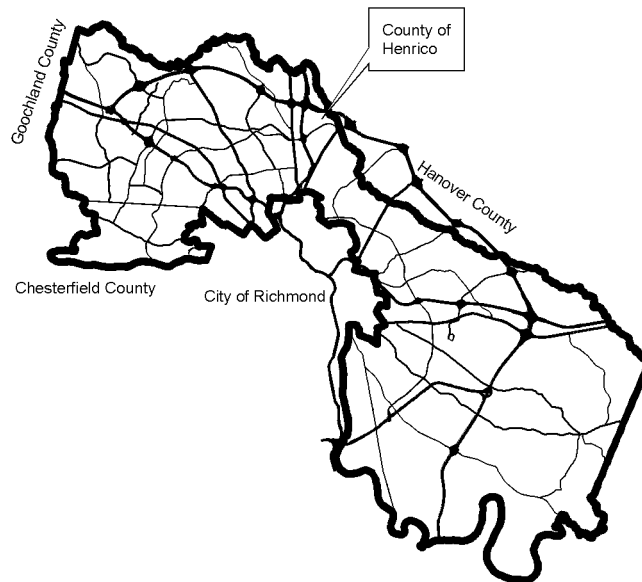
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
<b>Planning and Design</b>	500,000	100,000	75,000	50,000	50,000
<b>Land</b>	0	0	0	0	0
<b>Site Improvements</b>	0	0	0	0	0
<b>Construction</b>	2,900,000	1,000,000	700,000	450,000	450,000
<b>Direct Equipment</b>	0	0	0	0	0
<b>Vehicle Replacement</b>	0	0	0	0	0
<b>Other project Costs</b>	0	0	0	0	0
<b>Furniture and Fixtures</b>	0	0	0	0	0
<b>Total Request</b>	\$3,400,000	\$1,100,000	\$775,000	\$500,000	\$500,000

### Estimated Operating Costs

<b>FY2018</b>	\$0
<b>FY2019</b>	\$0
<b>FY2020</b>	\$0
<b>FY2021</b>	\$0
<b>FY2022</b>	\$0

### Map



### Notes

**Prior Request Year:** Year 1  
**Prior Request Priority:** 4  
**Prior Request Amount:** \$600,000

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 00780 <b>Department:</b> Public Utilities - Water <b>Project Type:</b> Water <b>District:</b> Countywide	<b>Project Name:</b> Water Meters <b>Department Priority:</b> 5 <b>Fiscal Year:</b> 2018 <b>Revenue Source:</b> Enterprise Fund
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### 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 are used to 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: FY2017 - \$350,000; FY2018 - \$350,000; FY2019 - \$350,000; FY2020 - \$350,000; FY2021 - \$350,000.

### Location

Countywide

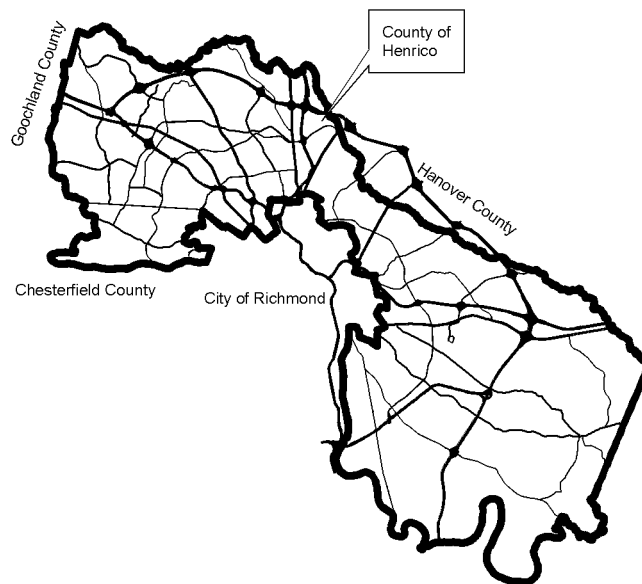
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
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
<b>Total Request</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>

### Estimated Operating Costs

FY2018	\$0
FY2019	\$0
FY2020	\$0
FY2021	\$0
FY2022	\$0

### Map



### Notes

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

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 00767	<b>Project Name:</b> Water Reloc., Adjustments & Crossings
<b>Department:</b> Public Utilities - Water	<b>Department Priority:</b> 6
<b>Project Type:</b> Water	<b>Fiscal Year:</b> 2018
<b>District:</b> Countywide	<b>Revenue Source:</b> Enterprise Fund

### Description and Scope

Design and construct adjustments to existing water lines and extend new water lines necessary for coordination with road and 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

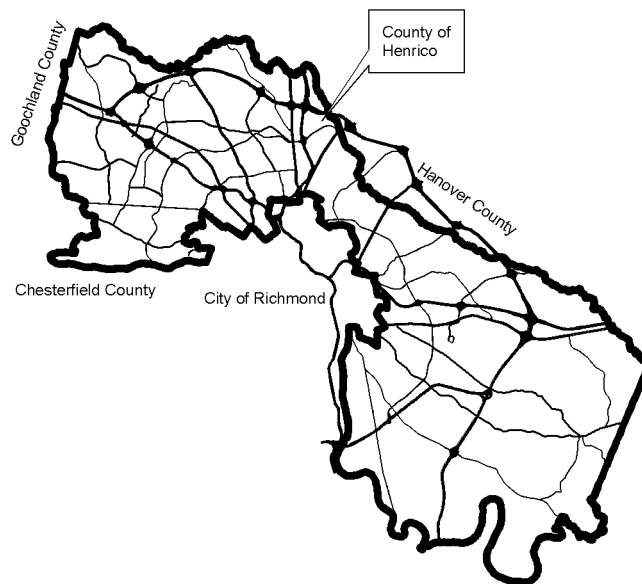
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
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
<b>Total Request</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>

### Estimated Operating Costs

<b>FY2018</b>	\$0
<b>FY2019</b>	\$0
<b>FY2020</b>	\$0
<b>FY2021</b>	\$0
<b>FY2022</b>	\$0

### Map



### Notes

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

# Capital Improvement Program

## FY2017/18 - FY2021/22 - Fund -51 -Enterprise Fund - W&S

<b>Project No:</b> 08171	<b>Project Name:</b> Water Treatment Facility Improvements
<b>Department:</b> Public Utilities - Water	<b>Department Priority:</b> 7
<b>Project Type:</b> Water	<b>Fiscal Year:</b> 2018
<b>District:</b> Three Chopt	<b>Revenue Source:</b> Enterprise Fund

### Description and Scope

Design and construct improvements and major repairs and replacements at the Water Treatment Facility.

### Purpose and Need

Facility improvements are based on our asset management system reports, condition assessments and maintenance history.

### History and Current Status

Funding remains at \$100,000

### Location

10111 Three Chopt Road

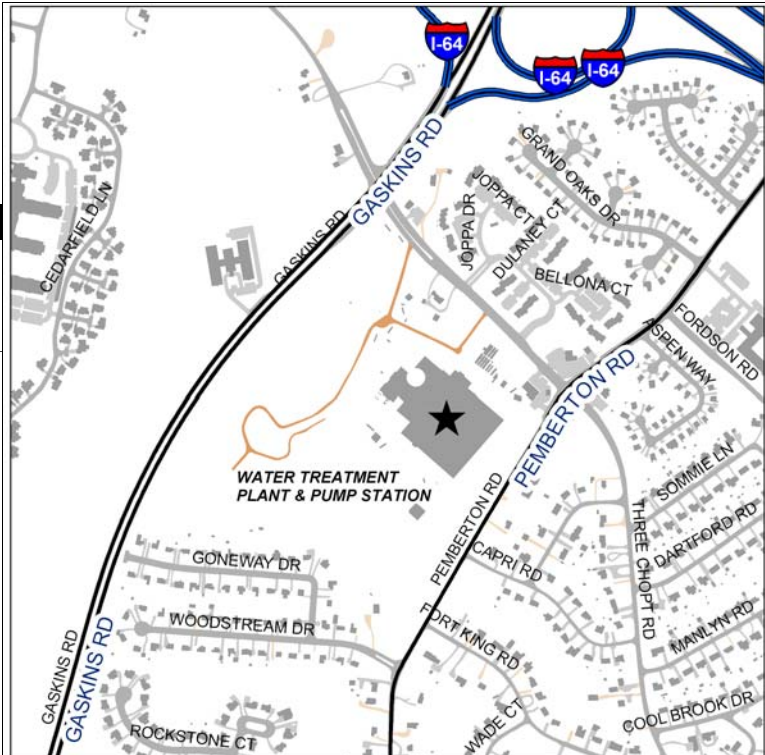
### Capital Expenditures

	FY2018	FY2019	FY2020	FY2021	FY2022
Planning and Design	20,000	0	0	0	0
Land	0	0	0	0	0
Site Improvements	0	0	0	0	0
Construction	80,000	100,000	100,000	100,000	100,000
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
<b>Total Request</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>

### Estimated Operating Costs

<b>FY2018</b>	\$0
<b>FY2019</b>	\$0
<b>FY2020</b>	\$0
<b>FY2021</b>	\$0
<b>FY2022</b>	\$0

### Map



### Notes

**Prior Request Year:** Year 1  
**Prior Request Priority:** 11  
**Prior Request Amount:** \$100,000