Stormwater Projects

FULLY FUNDED PROJECTS

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Ahoy Acres/Holly Cove System Replacement	July 2012	1,300,000	810,570	06-15

The project includes the replacement and upgrade of aging pipe system and structures within this neighborhood to provide a ten year level of protection .

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Border Road Area Drainage Improvements Phase II	December 2012	1,200,000	0	06-14

Neighborhood drainage improvements including the rehab /replacement of existing drainage system. Phase I of this project was completed two years ago and Phase II will complete recommended improvements in the study area.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Camelot Outfall Drainage Improvements	March 2011	1,700,000	1,642,998	01-08

The project will replace the existing 36" lake outlet with a box culvert to Deep Creek Blvd.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Camp Road Culvert and Ditch Upgrade2	November 2011	1,287,500	0	02-08

Replace existing culverts crossing Campostella Road and raise the roadway, widen existing channel from Military Highway to Campostella Road and immediately downstream of the new culverts, and install an additional culvert.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Citywide Undesignated Drainage	July 2012	577,029	52,768	04-08

Citywide drainage improvements including acquisition of easements, replacement of pipes, regrading ditches and associated activities.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Citywide Undesignated Drainage Phase II	December 2017	2,096,648	78,680	68-12

Citywide drainage improvements including acquisition of easements, replacement of pipes, regrading ditches and associated activities.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Community Rating System	May 2012	34,000	34,000	40-14

Design and related professional services required to develop and submit the City's applications to the FEMA National Flood Insurance Program's Community Rating System.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Dunedin Area Drainage Improvements	April 2012	340,000	225,881	01-10

Neighborhood drainage improvements including acquisition of easements, perimeter ditch, re-grading ditches and associated activities to address existing neighborhood drainage deficiencies.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Green Meadow Point	December 2012	87,000	0	01-07

This project includes the dredging of several canals to improve the outfall drainage system in the area.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Halifax	September 2012	1,500,000	101,176	01-11

The project includes the removal of the existing pipe system and installation of a larger pipe system to handle the stormwater runoff from areas within Chesapeake and the City of Norfolk

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Homemont Area Drainage Improvements	June 2011	2,100,000	1,105,611	06-13

This project will include piping the roadside ditch along Water's Road, re-grading roadside ditch within Homemont and improve the outfall ditch to Herring Ditch.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Lamberts Trail Area Drainage Improvements	December 2012	2,100,000	0	07-13

Improve the outfall using adequate sized pipe systems along Deep Creek Blvd. Re-grade roadside ditches and re-set driveway pipes as needed within Lamberts Trail area.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Money Point Area BMP & Drainage Improvements	March 2011	730,567	637,506	07-14

Previous funding provided partial stormwater improvements for this area, the additional funding this year will continue the construction of stormwater improvements and provide for a BMP in the area.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Murray Dr./ Greenhaven Area Improvement	March 2012	1,500,000	1,186,627	74-12

This project will upgrade the outfall drainage system and provide for a ditch along the southern part of the neighborhood.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Neighborhood Drainage Improvements	December 2017	2,509,267	458,713	05-12

Citywide drainage improvements including acquisition of easements, replacement of pipes, regrading ditches and associated activities to address existing neighborhood drainage deficiencies .This includes the neighborhoods of Phyllis Drive, Nina Drive, Jarvis Road, Buskey Road outfall, Bainbridge Blvd. drainage improvement, Ohio Street , Jefferson Street, Chesapeake Drive, Inland Colony area, Fernwood Farm outfalls, Cedarville/Sanderson Road area, Shell Road outfall and Oleander Avenue outfall improvement, and Greenbrier Outfall Improvements

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Partridge/Cloverdale Area Drainage Improvements	July 2012	600,000	309,456	75-12

The project includes the installation of concrete valley gutter/edging and a pipe system to carry the stormwater runoff and reduce the frequent flooding occurring in this area.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Scenic Blvd. Drainage Improvements	July 2012	260,000	0	76-12

The project will include re-grading roadside ditches and re-setting driveway pipes.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Shillelagh Roadside Ditch Relocation	July 2012	600,000	3,600	78-12

The ditches along part of Shillelagh Road (approximately 2000 ft.) need re-grading and driveway pipes need to be reset to allow for the stormwater flow .

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Shorewood Area Drainage Improvements	December 2012	540,000	0	11-13

Improve the outfall using adequate sized ditch cross sections. Re-grade roadside ditches and re-set driveway pipes as needed within this area.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Sunray Drainage Outfall - Phase III	September 2012	979,557	302,803	01-04

Provide drainage crossing improvements at Norfolk Southern railroad tracks. Widen existing ditches north of Sunray Avenue and improve existing drainage outfalls.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Various Drainage Improvement Projects	September 2012	1,942,798	1,133,128	34-11

Improving Storm Water systems as follows: Delia Drive outfall re-grading ,Yadkin Road outfall, and West Munden outfall.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Yadkin Road BMP Drainage Improvement Phase III	June 2012	500,000	0	12-15

The project will continue improvements completed in phase one and two to improve drainage along Yadkin Rd. and will include the upgrade of Culverts and a proposed best management practice (BMP) along the outfall.

Project Name	Completion Date	Total Appropriated	Obligated To Date	
Yadkin Roadside Ditch Improvements & BMP , Phase II	June 2012	1,490,000	82,178	12-12

Replace existing driveway pipes along Yadkin Rd. and deepen the roadside ditch to convey stormwater runoff and improve drainage/ level of protection for upstream areas.

Total - Fully Funded Projects	25,974,365	8,165,695

BMP Restoration Citywide

73-12

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	The project includes the removal of significant accumulated amounts of sediment and silt in order to restore storage capacity and improve control of storm water.	
Purpose and Need	Over the years significant amounts of silt and sediment have accumulated within City retention ponds limiting their capacity. This project is needed to maintain the hydraulic capacity and maintain the water quality function by limiting runoff to area creeks and streams.	
History and Status	State and Federal requirements to meet and enhance stormwater runoff quality into the bay.	

Start Date July 2011 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

73-12		
	FY 2013	300,000
	FY 2014	400,000
	FY 2015	400,000
	FY 2016	400,000
	FY 2017	400,000
	5 Year Total	1,900,000
	Prior Years	400,000
	Beyond 5 Years	0
	Project Total	2,300,000

Project Funding Sources

73-12		
	Cash - Stormwater Fund	2,300,000
	Total Project Funding	2,300,000

Estimated Project Costs by Expense Category

73-12	FY 2013	5 Year Total	Project Total
Construction	300,000	1,900,000	2,300,000
Project Total	**300,000**	**1,900,000**	**2,300,000**

Operating Impacts

Chesapeake Dr. Drainage Improvements

02-13

Project Type	Replacement	Stormwater Projects
Description	Remove and replace existing 24" pipe with an adequate sized system and connect to upstream and downstream systems.	
Purpose and Need	The existing 24" pipe is severely undersized and is in poor condition resulting in frequent flooding in the area.	
History and Status	City wide cave-in analysis completed in 2007 identified this area as one of the top areas in need of system rehabilitation and upgrade	

Start Date July 2012 Completion Date December 2013 Status Feasibility Study

Project Funding by Year

02-13	FY 2013	880,000
	FY 2014	0
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	880,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	880,000

Project Funding Sources

02-13	Cash - Stormwater Fund	880,000
	Total Project Funding	880,000

Estimated Project Costs by Expense Category

02-13	FY 2013	5 Year Total	Project Total
Construction	830,000	830,000	830,000
Design and Engineer	50,000	50,000	50,000
Project Total	**880,000**	**880,000**	**880,000**

Operating Impacts

Citywide Outfall Re-grading and Restoration

03-16

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	This project will remove accumulated sediment and silt from ditches and outfalls.	
Purpose and Need	Accumulated sediment and silt removal is required on a regular basis in order to maintain ditch capacity and improve stormwater runoff quality .	
History and Status	City wide outfall ditches were identified and ranked to provide a maintenance schedule for those lead ditches based on actual conditions. Major outfall maintenance activities will be contracted to maintain system capacity started in 2010.	

Start Date July 2012 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

03-16		
	FY 2013	120,000
	FY 2014	200,000
	FY 2015	200,000
	FY 2016	200,000
	FY 2017	200,000
	5 Year Total	920,000
	Prior Years	200,000
	Beyond 5 Years	0
	Project Total	1,120,000

Project Funding Sources

03-16		
	Cash - Stormwater Fund	1,120,000
	Total Project Funding	1,120,000

Estimated Project Costs by Expense Category

03-16	FY 2013	5 Year Total	Project Total
Construction	70,000	670,000	820,000
Land Acquisition	50,000	250,000	300,000
Project Total	**120,000**	**920,000**	**1,120,000**

Operating Impacts

Citywide System Rehab

43-17

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	The project includes the replacement and upgrade of aging pipe systems and structures within selected neighborhoods in order to provide a ten year level of protection.	
Purpose and Need	The presence of numerous reported cave-ins and sinkholes within an area indicates there is a need for a system type improvement.	
History and Status	A large number of cave-ins have been identified across the City, particularly in neighborhoods developed during the 1970s.	

Start Date July 2012 Completion Date December 2017 Status New

Project Funding by Year

43-17		
	FY 2013	450,000
	FY 2014	450,000
	FY 2015	450,000
	FY 2016	450,000
	FY 2017	450,000
	5 Year Total	2,250,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	2,250,000

Project Funding Sources

43-17		
	Cash - Stormwater Fund	2,250,000
	Total Project Funding	2,250,000

Estimated Project Costs by Expense Category

43-17	FY 2013	5 Year Total	Project Total
Construction	400,000	2,000,000	2,000,000
Design and Engineer	50,000	250,000	250,000
Project Total	**450,000**	**2,250,000**	**2,250,000**

Operating Impacts

Citywide Undesignated Drainage Phase III

07-15

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	Citywide drainage improvements including acquisition of easements, replacement of pipes, regrading ditches and associated activities.	
Purpose and Need	Major expenditures are necessary to increase drainage capacity in systems that experienced flooding from recent storm events. Many of these were brought to the City's attention by citizens' concerns raised during and after the 1999 hurricane season.	
History and Status		

Start Date July 2012 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

07-15	FY 2013	500,000
	FY 2014	765,000
	FY 2015	500,000
	FY 2016	500,000
	FY 2017	500,000
	5 Year Total	2,765,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	2,765,000

Project Funding Sources

07-15	Cash - Stormwater Fund	2,765,000
	Total Project Funding	2,765,000

Estimated Project Costs by Expense Category

07-15	FY 2013	5 Year Total	Project Total
Construction	500,000	2,765,000	2,765,000
Project Total	**500,000**	**2,765,000**	**2,765,000**

Operating Impacts

Colony Manor Outfall Improvements

72-12

Project Type	New Facility	Stormwater Projects
Description	The project includes the widening and straightening of the existing outfall to improve the system capacity.	
Purpose and Need	The existing outfall system is inadequate and causes flooding in the upstream areas, this project will improve this system and provide a higher level of protection to the area residents.	
History and Status	Drainage study completed in 2003, as a result of continued flooding in the neighborhood, identified needs and recommended improvements to resolve flooding problems.	

Start Date January 2014 Completion Date December 2014 Status Feasibility Study

Project Funding by Year

72-12		
	FY 2013	0
	FY 2014	415,000
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	415,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	415,000

Project Funding Sources

72-12		
	Cash - Stormwater Fund	415,000
	Total Project Funding	415,000

Estimated Project Costs by Expense Category

72-12	FY 2013	5 Year Total	Project Total
Construction	0	350,000	350,000
Design and Engineer	0	65,000	65,000
Project Total	**0**	**415,000**	**415,000**

Operating Impacts

Cooper's Ditch Dredging

04-10

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	The project includes the dredging of several areas within Cooper's Ditch. The project will also include retrofit work and installation of a BMP (retention pond) to address water quality in this watershed .	
Purpose and Need	Cooper's ditch was excavated as a canal facility in the early 1990's , over the years significant amounts of silt and sediment have accumulated along the ditch and particularly close to roadway crossings. The project is needed to maintain the hydraulic capacity needed to serve the Cooper's Ditch Watershed.	
History and Status	Major outfall maintenance activities will be contracted to maintain system capacity and establish a regular maintenance schedule for ditches throughout the City.	

Start Date January 2013 Completion Date June 2014 Status Feasibility Study

Project Funding by Year

04-10		
	FY 2013	2,000,000
	FY 2014	0
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	2,000,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	2,000,000

Project Funding Sources

04-10		
	Cash - Stormwater Fund	2,000,000
	Total Project Funding	2,000,000

Estimated Project Costs by Expense Category

04-10	FY 2013	5 Year Total	Project Total
Construction	1,900,000	1,900,000	1,900,000
Design and Engineer	50,000	50,000	50,000
Land Acquisition	50,000	50,000	50,000
Project Total	**2,000,000**	**2,000,000**	**2,000,000**

Operating Impacts

D Street Drainage Improvements

04-13

Project Type	Addition or Expansion	Stormwater Projects
Description	Install a new drainage system along the street including structures and basins.	
Purpose and Need	This segment of D Street lacks a drainage system to carry Stormwater runoff resulting in flooding along the street.	
History and Status	Drainage study complete in 2005, as a result of continued flooding in the neighborhood, identified needs and recommended improvements to resolve flooding problems.	

Start Date January 2014 Completion Date December 2014 Status Feasibility Study

Project Funding by Year

04-13		
	FY 2013	0
	FY 2014	370,000
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	370,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	370,000

Project Funding Sources

04-13		
	Cash - Stormwater Fund	370,000
	Total Project Funding	370,000

Estimated Project Costs by Expense Category

04-13	FY 2013	5 Year Total	Project Total
Construction	0	300,000	300,000
Design and Engineer	0	35,000	35,000
Land Acquisition	0	35,000	35,000
Project Total	**0**	**370,000**	**370,000**

Operating Impacts

Neighborhood Drainage Improvements II

08-15

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	Citywide drainage improvements including acquisition of easements, replacement of pipes, regrading ditches and associated activities to address existing neighborhood drainage deficiencies .	
Purpose and Need	Major expenditures are necessary to increase drainage capacity and upgrade deficient drainage systems in existing neighborhoods citywide.	
History and Status		

Start Date July 2012 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

08-15		
	FY 2013	500,000
	FY 2014	500,000
	FY 2015	500,000
	FY 2016	500,000
	FY 2017	500,000
	5 Year Total	2,500,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	2,500,000

Project Funding Sources

08-15		
	Cash - Stormwater Fund	2,500,000
	Total Project Funding	2,500,000

Estimated Project Costs by Expense Category

08-15	FY 2013	5 Year Total	Project Total
Construction	500,000	2,500,000	2,500,000
Project Total	**500,000**	**2,500,000**	**2,500,000**

Operating Impacts

Oakdale Area BMP and Drainage Improvements

09-15

Project Type	Addition or Expansion	Stormwater Projects
Description	The project will include an updated study, construction of stormwater pipes, ditches and lakes/BMPs to provide flood and water quality improvements.	
Purpose and Need	This area experiences frequent flooding due to the old and undersized drainage system. A study completed in 1999 recommended several large size drainage facilities to improve the conditions and prevent flooding.	
History and Status	Drainage study completed in 1999 identified solutions to prevent flooding.	

Start Date January 2017 Completion Date December 2020 Status Feasibility Study

Project Funding by Year

09-15		
	FY 2013	0
	FY 2014	0
	FY 2015	0
	FY 2016	500,000
	FY 2017	500,000
	5 Year Total	1,000,000
	Prior Years	0
	Beyond 5 Years	4,000,000
	Project Total	5,000,000

Project Funding Sources

09-15		
	Cash - Stormwater Fund	5,000,000
	Total Project Funding	5,000,000

Estimated Project Costs by Expense Category

09-15	FY 2013	5 Year Total	Project Total
Construction	0	500,000	500,000
Design and Engineer	0	200,000	200,000
Land Acquisition	0	300,000	4,300,000
Project Total	**0**	**1,000,000**	**5,000,000**

Operating Impacts

Prince Edwards Drive Outfall Improvements

09-13

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	Upgrade culverts along Prince Edwards , the crossing of St. Brides Road and improve the downstream ditch cross section to reduce flooding along Prince Edwards Drive.	
Purpose and Need	The existing culvert and ditch are severely undersized and results in frequent flooding in the area.	
History and Status	Drainage study completed in 1999, as a result of continued flooding in the neighborhood, identified needs and recommended improvements to resolve flooding problems.	

Start Date March 2014 Completion Date November 2014 Status Feasibility Study

Project Funding by Year

09-13		
	FY 2013	0
	FY 2014	600,000
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	600,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	600,000

Project Funding Sources

09-13		
	Cash - Stormwater Fund	600,000
	Total Project Funding	600,000

Estimated Project Costs by Expense Category

09-13	FY 2013	5 Year Total	Project Total
Construction	0	500,000	500,000
Design and Engineer	0	50,000	50,000
Land Acquisition	0	50,000	50,000
Project Total	**0**	**600,000**	**600,000**

Operating Impacts

Royce Drive Drainage Improvements

10-13

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	Improve the outfall using adequate sized ditch cross sections. Re-grade roadside ditches and re-set driveway pipes as needed within this area.	
Purpose and Need	This project was identified after receiving many citizen complaints. There is a need to improve the area's outfall, to re-grade roadside ditches, and re-set driveway pipes because of long term drainage problems and flooding.	
History and Status	Drainage study completed in 2003, as a result of continued flooding in the neighborhood, identified needs and recommended improvements to resolve flooding problems.	

Start Date January 2014 Completion Date July 2015 Status Feasibility Study

Project Funding by Year

10-13		
	FY 2013	0
	FY 2014	550,000
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	550,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	550,000

Project Funding Sources

10-13		
	Cash - Stormwater Fund	550,000
	Total Project Funding	550,000

Estimated Project Costs by Expense Category

10-13	FY 2013	5 Year Total	Project Total
Construction	0	450,000	450,000
Design and Engineer	0	50,000	50,000
Land Acquisition	0	50,000	50,000
Project Total	**0**	**550,000**	**550,000**

Operating Impacts

Shillelagh Road Drainage Outfall Improvement

77-12

Project Type	Addition or Expansion	Stormwater Projects
Description	Improve and widen the main outfall for Shillelagh Road and upgrade the downstream culvert crossing to prevent frequent flooding in the area.	
Purpose and Need	The Shillelagh Road / Herring ditch community was identified after the storms of 1999 as one of the drainage areas to study. The study, completed in 1999, recommended widening the outfall ditch and upgrading the downstream culverts.	
History and Status	Project improvements are slated to begin in FY 2016.	

Start Date September 2016 Completion Date December 2018 Status Feasibility Study

Project Funding by Year

77-12		
	FY 2013	0
	FY 2014	0
	FY 2015	0
	FY 2016	500,000
	FY 2017	1,700,000
	5 Year Total	2,200,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	2,200,000

Project Funding Sources

77-12		
	Cash - Stormwater Fund	2,200,000
	Total Project Funding	2,200,000

Estimated Project Costs by Expense Category

77-12	FY 2013	5 Year Total	Project Total
Construction	0	1,700,000	1,700,000
Design and Engineer	0	500,000	500,000
Project Total	**0**	**2,200,000**	**2,200,000**

Operating Impacts

Stormwater Mapping & Master Drainage Plan II

06-12

Project Type	Study	Stormwater Projects

Description This project continues updating of the Stormwater Inventory Mapping and Master Drainage Plan.

Purpose and Need The updating of the Stormwater Inventory Mapping and Master Drainage Plan is essential in providing quick, accurate information to City staff, consultants and the general public. The mapping will provide inventory mapping to support emergency responses and GASB 34 accounting.

History and Status The City's master drainage plan was completed in 1986. Many changes have occurred in the stormwater system and land/environment it supports since then. Because of changes in the drainage system and surrounding environment, an updated master drainage plan and maps are necessary. This is the second phase of a project started in 2006.

Start Date July 2011 Completion Date November 2012 Status Planning and Design

Project Funding by Year

06-12		
	FY 2013	200,000
	FY 2014	200,000
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	400,000
	Prior Years	600,000
	Beyond 5 Years	0
	Project Total	1,000,000

Project Funding Sources

06-12		
	Cash - Stormwater Fund	1,000,000
	Total Project Funding	1,000,000

Estimated Project Costs by Expense Category

06-12	FY 2013	5 Year Total	Project Total
Design and Engineer	200,000	400,000	1,000,000
Project Total	**200,000**	**400,000**	**1,000,000**

Operating Impacts

Stormwater Mapping & Master Drainage Plan III

10-15

Project Type	Study	Stormwater Projects
Description	This project continues updating of the Stormwater Inventory Mapping and Master Drainage Plan.	
Purpose and Need	The updating of the Stormwater Inventory Mapping and Master Drainage Plan is essential in providing quick, accurate information to City staff, consultants and the general public. The mapping will provide inventory mapping to support emergency responses and GASB 34 accounting.	
History and Status	The City's master drainage plan was completed in 1986. Many changes have occurred in the stormwater system and land/environment it supports since then. Because of changes in the drainage system and surrounding environment, an updated master drainage plan and maps are necessary. This is the third phase of a project started in 2006.	

Start Date July 2012 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

10-15		
	FY 2013	0
	FY 2014	0
	FY 2015	200,000
	FY 2016	200,000
	FY 2017	200,000
	5 Year Total	600,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	600,000

Project Funding Sources

10-15		
	Cash - Stormwater Fund	600,000
	Total Project Funding	600,000

Estimated Project Costs by Expense Category

10-15	FY 2013	5 Year Total	Project Total
Design and Engineer	0	600,000	600,000
Project Total	**0**	**600,000**	**600,000**

Operating Impacts

Stormwater Quality Program

05-14

Project Type	Study	Stormwater Projects

Description

This program will ensure compliance with the Virginia Pollution Discharge Elimination System Permit and update the City's MS4 (Municipal separate stormwater sewer system) program plan. This project includes extensive data collection and inspection of all stormwater management facilities in accordance with the new permit requirements and establishing a monitoring and sampling program to comply with the new Total Maximum Daily Load (TMDL) requirements. This study is part of a regional effort led by the Hampton Roads Planning District for improvements to the Chesapeake Bay watershed as required by new EPA regulations.

Purpose and Need

The City and neighboring localities are currently working with Virginia Department of Conservation and Recreation (VDCR) and Environmental Protection Agency (EPA) to finalize the new MS4 permit requirements. Once a permit is issued, the City is required to comply with the new permit and this project is needed to meet permit compliance. Also, Chesapeake and all localities within the Chesapeake Bay watershed are required to comply with an EPA Watershed Implementation Plan (WIP) to address pollutant TMDL (also known as the pollution diet) for the Chesapeake Bay.

History and Status

Total Maximum Daily Load (TMDL) is required by the EPA as part of the Watershed Implementation Plan (WIP) to clean up the Chesapeake Bay. Project started in 2010.

Depending on VDCR permitting requirements, some study funds may be available to address actual improvements in stormwater discharge (run off) into waterways and creeks.

Start Date July 2011 Completion Date December 2012 Status Planning and Design

Project Funding by Year

05-14		
	FY 2013	1,500,000
	FY 2014	2,000,000
	FY 2015	0
	FY 2016	0
	FY 2017	0
	5 Year Total	3,500,000
	Prior Years	3,300,000
	Beyond 5 Years	0
	Project Total	6,800,000

Project Funding Sources

05-14		
	Cash - Stormwater Fund	6,800,000
	Total Project Funding	6,800,000

Estimated Project Costs by Expense Category

05-14	FY 2013	5 Year Total	Project Total
Construction	0	1,500,000	1,500,000
Design and Engineer	1,500,000	2,000,000	5,300,000
Project Total	**1,500,000**	**3,500,000**	**6,800,000**

Operating Impacts

Stormwater Quality Program Phase II

11-15

Project Type	Study	Stormwater Projects

Description

This program is to ensure compliance with the Virginia Pollution Discharge Elimination System Permit and to update the City's MS4 (Municipal separate stormwater sewer system) program plan. This project will include the development of PARS system (regional stormwater tracking and reporting system), extensive data collection and inspection of all stormwater management facilities in accordance with the new permit requirements and establishing a monitoring and sampling program to comply with the new TMDL requirements. Also, as part on the permit requirements the City will be completing stormwater retrofit projects to address stormwater runoff discharge into waterways and creeks.

Purpose and Need

The City and neighboring localities are currently working with Virginia Department of Conservation and Recreation (VDCR) and Environmental Protection Agency (EPA) to finalize the new MS4 permit requirements. Once a permit is issued then the City is required to comply with the new permit and this project is needed to meet permit compliance. Also, Chesapeake and all localities within the Chesapeake Bay watershed are required to comply with an EPA Watershed Implementation Plan (WIP) to address pollutant TMDL (also know as the pollution diet) for the Chesapeake Bay.

History and Status

Total Maximum Daily Load (TMDL) are being required by the EPA as part of the Watershed Implementation Plan (WIP) to clean up the Chesapeake Bay. Phase I of this project started in 2010.

Start Date September 2012 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

11-15		
	FY 2013	0
	FY 2014	0
	FY 2015	2,000,000
	FY 2016	2,000,000
	FY 2017	2,000,000
	5 Year Total	6,000,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	6,000,000

Project Funding Sources

11-15		
	Cash - Stormwater Fund	6,000,000
	Total Project Funding	6,000,000

Estimated Project Costs by Expense Category

11-15	FY 2013	5 Year Total	Project Total
Construction	0	4,500,000	4,500,000
Design and Engineer	0	1,500,000	1,500,000
Project Total	**0**	**6,000,000**	**6,000,000**

Operating Impacts

Sunray Area Outfall Re-Grading

Project Type	Renovation or Rehabilitation	Stormwater Projects
Description	The project includes the excavation and re-grading along the outfall due to the significant accumulation of sediment and silt which needs to be removed to maintain the hydraulic capacity needed for this major stormwater drainage facility in this watershed.	
Purpose and Need	Over the years, significant amounts of silt and sediment have accumulated along the ditch and particularly close to roadway crossings. The project is needed to maintain the hydraulic capacity needed to serve the Sunray Ditch Watershed.	
History and Status	Drainage study completed in 2001, as a result of continued flooding in the neighborhood, identified needs and recommended improvements to resolve flooding programs.	

Start Date March 2016 Completion Date December 2017 Status Feasibility Study

Project Funding by Year

13-13	FY 2013	0
	FY 2014	0
	FY 2015	0
	FY 2016	1,200,000
	FY 2017	0
	5 Year Total	1,200,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	1,200,000

Project Funding Sources

13-13	Cash - Stormwater Fund	1,200,000
	Total Project Funding	1,200,000

Estimated Project Costs by Expense Category

13-13	FY 2013	5 Year Total	Project Total
Construction	0	1,000,000	1,000,000
Design and Engineer	0	100,000	100,000
Land Acquisition	0	100,000	100,000
Project Total	**0**	**1,200,000**	**1,200,000**

Operating Impacts

Washington Manor Drainage Outfall Improvements

80-12

Project Type	Addition or Expansion	Stormwater Projects
Description	Improve and widen the main outfall and upgrade the downstream culvert crossing to prevent frequent flooding in the area.	
Purpose and Need	The Washington Manor community experienced flooding during 1999 storms. A study completed in 2000 recommended widening the outfall ditch and upgrading the downstream culverts.	
History and Status	Drainage study completed in 2000 recommended improvements to resolve flooding problems.	

Start Date March 2015 Completion Date September 2017 Status Feasibility Study

Project Funding by Year

80-12		
	FY 2013	0
	FY 2014	0
	FY 2015	2,200,000
	FY 2016	0
	FY 2017	0
	5 Year Total	2,200,000
	Prior Years	0
	Beyond 5 Years	0
	Project Total	2,200,000

Project Funding Sources

80-12		
	Cash - Stormwater Fund	2,200,000
	Total Project Funding	2,200,000

Estimated Project Costs by Expense Category

80-12	FY 2013	5 Year Total	Project Total
Construction	0	2,000,000	2,000,000
Design and Engineer	0	100,000	100,000
Land Acquisition	0	100,000	100,000
Project Total	**0**	**2,200,000**	**2,200,000**

Operating Impacts