

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

<u>Project Title</u>	Appropriated	FY 2008	<i>Un-Appropriated Subsequent Years</i>				5 Year	CIP
	To Date	Adopted	FY 2009	FY 2010	FY 2011	FY 2012	Total	Total
Downtown Master Utility Replacement Program	2,500,000	2,750,000	3,000,000	3,250,000	3,500,000	3,750,000	16,250,000	18,750,000
Infrastructure Improvements	23,821,883	5,500,000	6,000,000	6,500,000	7,000,000	7,500,000	32,500,000	56,321,883
Lake Cahoon Raw Water Pump Station and Pipeline	-	-	-	800,000	8,000,000	-	8,800,000	8,800,000
Lake Kilby Raw Water Pumping Station Replacement	4,051,000	3,698,000	-	-	-	-	3,698,000	7,749,000
Lake Kilby Replacement Filters 1-10	150,000	-	200,000	2,300,000	14,500,000	14,500,000	31,500,000	31,650,000
Low Pressure Transmission Mains	625,000	625,000	-	-	-	3,000,000	3,625,000	4,250,000
Meter Replacement Program	1,022,000	478,000	491,000	508,000	526,000	500,000	2,503,000	3,525,000
Miscellaneous Water Work	2,391,563	130,000	134,000	138,000	142,000	147,000	691,000	3,082,563
Replacement of Water Plant Equipment	5,228,213	600,000	1,220,000	1,257,000	1,294,500	1,340,000	5,711,500	10,939,713
Water Main Replacement	883,000	163,000	171,000	176,000	181,000	187,000	878,000	1,761,000
Water Plant Residuals Management and Disposal	4,433,500	-	1,700,000	-	1,700,000	-	3,400,000	7,833,500
Total Project Cost	45,106,159	13,944,000	12,916,000	14,929,000	36,843,500	30,924,000	109,556,500	154,662,659
<u>Debt Funding</u>								
Public Utilities General Obligation Bonds	44,204,359	13,944,000	12,916,000	14,929,000	36,843,500	30,924,000	109,556,500	153,760,859
<u>Other Funding</u>								
Community Share Incentive Fund	901,800	-	-	-	-	-	-	901,800
Total Funding	45,106,159	13,944,000	12,916,000	14,929,000	36,843,500	30,924,000	109,556,500	154,662,659

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75966 **Title: Downtown Master Utility Replacement Program** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision - Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Downtown Portsmouth**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	Non-Appropriated Programmed CIP Funding				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
18,750,000	2,500,000	2,750,000	3,000,000	3,250,000	3,500,000	3,750,000	0

Description and Scope

The Downtown Area contains some of Portsmouth oldest water and wastewater system components. Replacement of aged and inadequate water distribution and wastewater collection and conveyance systems in the Downtown Area are required to support the redevelopment of this critical area as envisioned by the Downtown Strategic Plan prepared by Urban Design Associates. Expected limits of the area are the Elizabeth River on the east, Crawford Parkway on the north, Chestnut Street/Fort Lane on the west, and I-264 on the south.

Rationale

The average age of these water and wastewater components is 100 years, well beyond their useful life. In order to adequately support the proposed redevelopment, replacement of these components is critical.

Funding Strategy

Phasing of this project will be tied to the redevelopment phases outlined in the Downtown Strategic Plan. The first phase (FY 2006-07) will be to prepare construction documents for the entire phased project followed by a multi-year construction implementation program.

Operating Budget Impacts

This project will reduce the possibility of major water and sewer system failures in the Downtown area, decreasing maintenance requirements as more piping is replaced.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Design	07/06 - 06/12	1,875,000
Construction	07/06 - 06/12	16,875,000
Total Budgetary Cost Estimate:		18,750,000
Means of Financing		
Funding Source	Amount	
Public Utilities General Obligation Bonds	18,750,000	
Total Programmed Funding:		18,750,000
Future Funding Requirements:		0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75939 **Title: Infrastructure Improvements** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision - Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Citywide**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
56,321,883	23,821,883	5,500,000	6,000,000	6,500,000	7,000,000	7,500,000	0

Description and Scope

The Department of Public Utilities has developed an aggressive program for replacing or rehabilitating the water and sewer infrastructure throughout the City, one neighborhood at a time. This work is based upon the age and condition of the neighborhood's water and sewer infrastructure.

Rationale

- Approximately 63% of Portsmouth's neighborhood water and sewer infrastructure is past its useful life. The age and condition of the water mains pose potential water quality problems and real problems with pressure, flow and leakage. The age and condition of the sewer lines pose potential leakage and cave-in problems, which can impede sewage flow and cause backups.
- The Master Infrastructure Rehabilitation Plan, the Strategic Financial Plan and the Asset Replacement Valuation Study of the Department of Public Utilities all support this project.

Funding Strategy

- This is an on-going project that will continue until all water mains that are past their useful life are replaced.
- Work will continue with Engineering Department improvements in the Brighton/South Portsmouth and Simonsdale Neighborhoods while planning and construction will commence in the Ebony Heights Neighborhoods.
- Construction of Prentis Park is expected to begin in FY08.

Operating Budget Impacts

This project will reduce the possibility of major water and sewer system failures, decreasing maintenance requirements as more piping is replaced. Debt service and rates will increase to support this program.

Project Map

Schedule of Activities

**VARIOUS
LOCATIONS
CITYWIDE**

Project Activities	From - To	Amount
Project Management	07/04 - 06/05	18,821,883
Design	07/06 - 06/12	3,750,000
Construction	07/06 - 06/12	33,750,000

Total Budgetary Cost Estimate: 56,321,883

Means of Financing

Funding Source	Amount
Community Share Incentive Fund	1,800
Public Utilities General Obligation Bonds	56,320,083

Total Programmed Funding: 56,321,883
Future Funding Requirements: 0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: New0006 **Title:** Lake Cahoon Raw Water Pump Station and Pipeline **Status:** Proposed

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference:** CC Vision – Neighborhood **District:**
LOS/Concurrency: N/A **Project Need:** N/A **Location:** Lake Cahoon Reservoir

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
8,800,000	0	0	0	800,000	8,000,000	0	0

Description and Scope

The Department of Public Utilities operates a system of four reservoirs. The Department maintains raw water intakes on two of the four reservoirs. This project would provide a raw water intake with a connection to the Lake Kilby Plant from a third reservoir, Lake Cohoon. Lake Cohoon contains 53% of the combined reservoir's supply capacity.

Rationale

- Construction of an intake on Lake Cohoon would provide a transmission source on the northern sub-basin of Portsmouth's reservoir system, thereby increasing protection against contamination events. Additionally water could be blended for both sub-basins feeding the terminal reservoir allowing for water quality adjustments.
- Construction of a separate access to the largest reservoir system sub-basin provides additional reliability that does not currently exist.

Funding Strategy

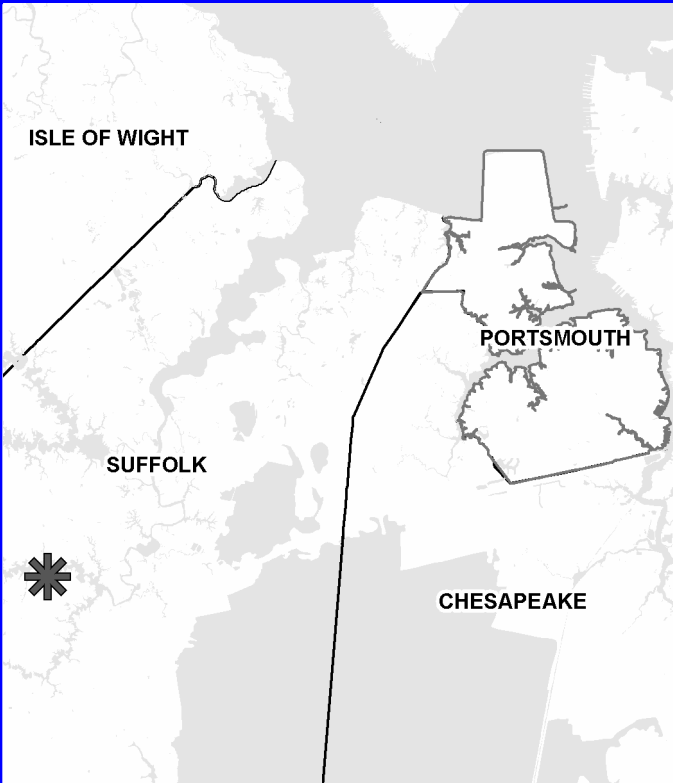
Design of the facilities is expected in FY 09-10, with construction to follow in FY 10-11.

Operating Budget Impacts

Once completed, this project will have minimal impact on the operating budget.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Design	07/09 - 06/10	800,000
Construction	07/10 - 06/12	8,000,000
Total Budgetary Cost Estimate:		8,800,000
Means of Financing		
Funding Source	Amount	
Public Utilities General Obligation Bonds	8,800,000	
Total Programmed Funding:		8,800,000
Future Funding Requirements:		0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75965 **Title: Lake Kilby Raw Water Pumping Station Replacement** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision – Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Lake Kilby Water Treatment Plant**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
7,749,000	4,051,000	3,698,000	0	0	0	0	0

Description and Scope

The Department of Public Utilities operates the Lake Kilby Water Treatment Facility. This project provides for the demolition of the abandoned electrical building and construction of a combined Lake Kilby/Lake Meade raw water intake and pumping station on the same site. This project replaces facilities built in 1936 and 1952.

Rationale

Replaces two antiquated and unreliable facilities with a new combined facility.

Funding Strategy

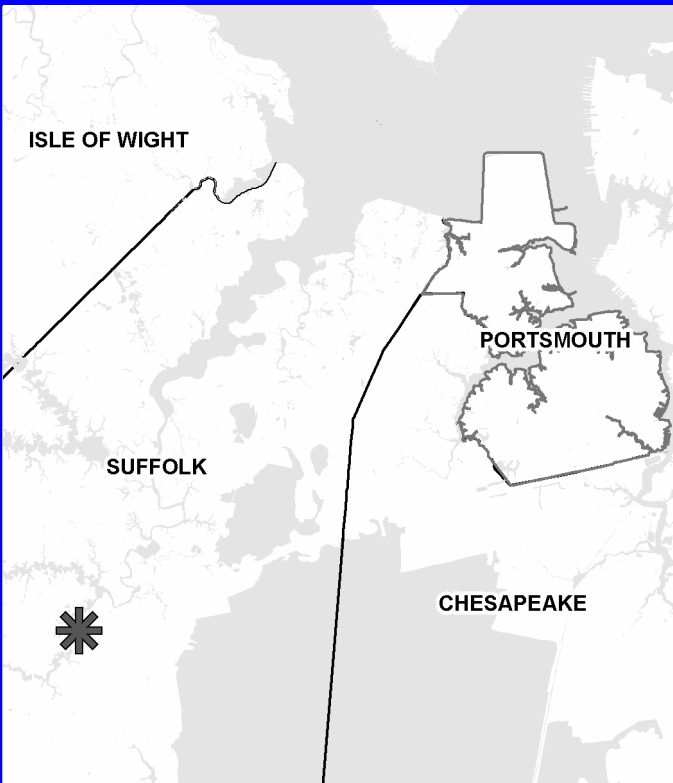
It is anticipated that the new facility will be designed in FY 05-06 using previously allocated funding; demolition of the abandoned electrical building will occur in FY 06-07 and construction of the new facility will begin in FY '06-'07 and be completed by FY 08-09.

Operating Budget Impacts

No appreciable impact; some slight decrease in energy consumption may be realized with newer, more efficient equipment.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Management	07/04 - 06/05	1,051,000
Construction	08/06 - 09/08	6,698,000
Total Budgetary Cost Estimate:		7,749,000

Means of Financing

Funding Source	Amount
Public Utilities General Obligation Bonds	7,749,000
Total Programmed Funding:	7,749,000
Future Funding Requirements:	0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75999 **Title: Lake Kilby Replacement Filters 1-10** **Status: Proposed**

Comprehensive Plan Information		Project Location
CIE Project: N/A	Plan Reference: CC Vision – Neighborhood	District:
LOS/Concurrency: N/A	Project Need: N/A	Location: Lake Kilby Water Treatment Facility

Programmed Funding							
Programmed Funding	Appropriated To Date	Budgeted FY 2008	FY 2009	Non-Appropriated Programmed CIP Funding			Future Funding
				FY 2010	FY 2011	FY 2012	
31,650,000	150,000	0	200,000	2,300,000	14,500,000	14,500,000	0

Description and Scope

The Department of Public Utilities operates the Lake Kilby Water Treatment Facility. This project provides for the replacement of filters 1 through 10 at the treatment facility with conventional media filters or with membrane technology.

Rationale

- Filters 1-4 were constructed in 1947 and filters 5-10 were constructed in 1968. The concrete filter boxes for some of these filters were constructed without reinforcing steel (post World War II constraint) and are now deteriorating. Additionally, the southwest corner of the filter building was not pile supported and has settled significantly. These filters have outlived or are nearing the end of their useful lives.
- To insure the continued integrity, capacity and operation of the Lake Kilby Treatment Facility it is important that these filters be replaced with either new conventional media filters or with the use of membrane technology.
- Project Source document: Lake Kilby Water Facility Master Plan 2001 Update, page 6-5, Table 6-3

Funding Strategy

It is anticipated that the evaluation of alternatives and engineering will be completed during the next five years and that construction will commence. Evaluation and study will determine the multiphasing of this project and its cost.

Operating Budget Impacts

Once completed, this project will have minimal impact on the operating budget.

Project Map	Schedule of Activities															
	<table border="1" style="width:100%"> <thead> <tr> <th align="center">Project Activities</th> <th align="center">From - To</th> <th align="center">Amount</th> </tr> </thead> <tbody> <tr> <td>Project Management</td> <td align="center">07/04 - 06/05</td> <td align="right">150,000</td> </tr> <tr> <td>Design</td> <td align="center">07/10 - 06/11</td> <td align="right">3,150,000</td> </tr> <tr> <td>Construction</td> <td align="center">07/10 - 06/11</td> <td align="right">28,350,000</td> </tr> <tr> <td align="right" colspan="2">Total Budgetary Cost Estimate:</td> <td align="right">31,650,000</td> </tr> </tbody> </table>	Project Activities	From - To	Amount	Project Management	07/04 - 06/05	150,000	Design	07/10 - 06/11	3,150,000	Construction	07/10 - 06/11	28,350,000	Total Budgetary Cost Estimate:		31,650,000
	Project Activities	From - To	Amount													
	Project Management	07/04 - 06/05	150,000													
	Design	07/10 - 06/11	3,150,000													
	Construction	07/10 - 06/11	28,350,000													
Total Budgetary Cost Estimate:		31,650,000														
Means of Financing																
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Funding Source	Amount															
Public Utilities General Obligation Bonds	31,650,000															
Total Programmed Funding:		31,650,000														
Future Funding Requirements:		0														

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75967 **Title: Low Pressure Transmission Mains** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision – Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Portsmouth and Suffolk**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
4,250,000	625,000	625,000	0	0	0	3,000,000	0

Description and Scope

•The Department of Public Utilities operates three low pressure transmission mains that convey water from the Lake Kilby Water Treatment Plant in Suffolk, 23 miles into Portsmouth. These mains were constructed in 1888, 1906 and 1950. This project provides for a plan to evaluate the remaining life of these mains and address the best way to rehabilitate or replace them in a phased, affordable manner. Total replacement may cost in excess of \$60 million dollars.

Rationale

These three pipelines have been in service between 53 and 116 years and are an important part of Portsmouth's water transmission system. They exhibit leaking joints and other signs of deterioration. This project is necessary to protect the water transmission capability of Portsmouth's water supply and to provide safe and reliable service.

Funding Strategy

The only portions of this project to be performed during the next five years are an evaluation of the mains, the completion of a phased plan for their replacement or rehabilitation and the construction of the first phase. Total replacement may cost in excess of \$60 million dollars.

Operating Budget Impacts

Once completed, this major project will reduce annual maintenance requirements, will increase system reliability and will reduce lost or unaccounted for water.

Project Map

Schedule of Activities

**MAP NOT
APPLICABLE**

<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Construction	07/06 - 06/11	4,250,000
Total Budgetary Cost Estimate:		<u>4,250,000</u>

Means of Financing

<u>Funding Source</u>	<u>Amount</u>	
Public Utilities General Obligation Bonds	4,250,000	
Total Programmed Funding:		<u>4,250,000</u>
Future Funding Requirements:		0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75946 **Title: Meter Replacement Program** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision – Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Citywide**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
3,525,000	1,022,000	478,000	491,000	508,000	526,000	500,000	0

Description and Scope

The Department of Public Utilities is responsible for the reading, operation and maintenance of over 31,000 water meters. This project provides for the systematic replacement of the water meters using economically justified age and accuracy criteria.

Rationale

National studies indicate that residential and commercial water meters decrease in accuracy over time (especially in recording lower range flows to the point that replacement is economically justified due to loss of revenue. This project envisions contract replacement of 5,000 residential meters per year for the next 6 years.

Funding Strategy

This project will be multiphased over 6 years upon evaluation of firms to conduct this work.

Operating Budget Impacts

This project will reduce the annual maintenance requirements and increase revenues due to accurate metering of water consumption.

Project Map

Schedule of Activities

**MAP NOT
APPLICABLE**

<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Project Management	07/04 - 06/05	1,022,000
Design	07/06 - 06/12	250,300
Construction	07/06 - 06/12	2,252,700
Total Budgetary Cost Estimate:		3,525,000

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Public Utilities General Obligation Bonds	3,525,000
Total Programmed Funding:	3,525,000
Future Funding Requirements:	0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75953 **Title: Miscellaneous Water Work** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision – Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Citywide**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
3,082,563	2,391,563	130,000	134,000	138,000	142,000	147,000	0

Description and Scope

The Department of Public Utilities is responsible for the operation & maintenance of approximately 546 miles of water mains; over 2,500 fire hydrants; 12,000 valves; four elevated tanks; two water booster-pumping stations and other components comprising the water system. This project provides for routine replacement and/or rehabilitation of the water system components that are not included in the Neighborhood Replacement Program. The work will be performed with in-house and contractor forces.

Rationale

Replacement, repair or rehabilitation is dictated by deterioration due to age and the failure of the components.

Funding Strategy

This is an ongoing project due to the age and the condition of the water system.

Operating Budget Impacts

Project will reduce the annual maintenance budget (leak repairs, component failures) and will improve water quality.

Project Map

Schedule of Activities

**VARIOUS
LOCATIONS
CITYWIDE**

Project Activities	From - To	Amount
Project Management	07/04 - 06/05	2,391,563
Construction	07/06 - 06/12	691,000
Total Budgetary Cost Estimate:		3,082,563

Means of Financing

Funding Source	Amount
Community Share Incentive Fund	900,000
Public Utilities General Obligation Bonds	2,182,563
Total Programmed Funding:	3,082,563
Future Funding Requirements:	0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75944 **Title: Replacement of Water Plant Equipment** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision – Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Lake Kilby Water Treatment Facility**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
10,939,713	5,228,213	600,000	1,220,000	1,257,000	1,294,500	1,340,000	0

Description and Scope

The Department of Public Utilities is responsible for the operation & maintenance of a 32 million per day capacity water treatment plant and associated raw water pumping stations. This project provides for the addition, replacement, rehabilitation or life-extension overhaul of pumps, electrical & control systems, valves, HVAC systems, roofs, emergency generators, chemical storage and feed systems, security systems and other major equipment items.

Rationale

- Two of the Portsmouth finished water vertical turbine pumps require replacement with variable speed drive pumps and the other vertical turbine pumps require major overhaul after 24 years of use.
- Additionally, chemical storage and feed equipment and other major end items require rehabilitation, replacement or overhaul to continue the safe, reliable operation of the water treatment plant to meet state and federal regulations. Finally, funds are required to further enhance the security systems at the plant and connected facilities.

Funding Strategy

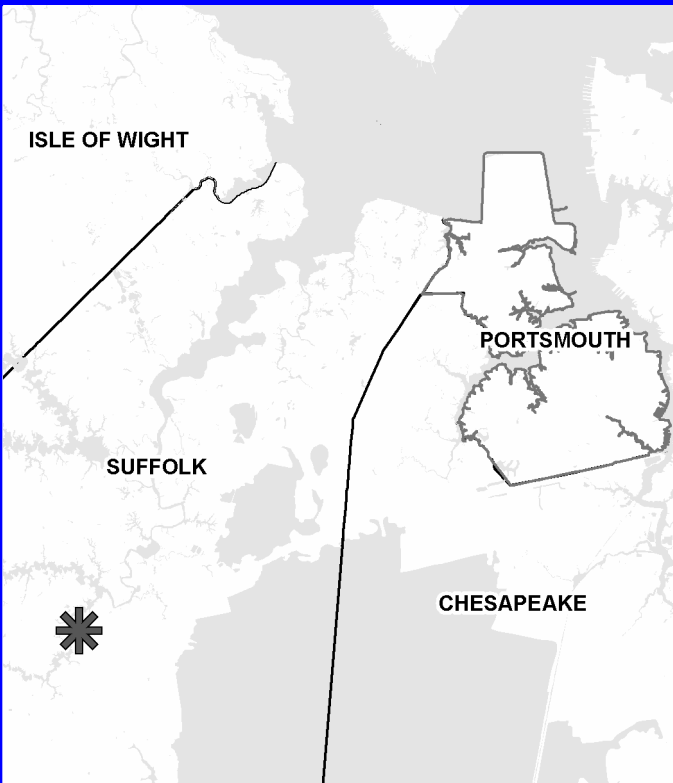
This is an ongoing project that will continue throughout the life of the water plant.

Operating Budget Impacts

Project will reduce the annual maintenance requirements and provide for reliable operations.

Project Map

Schedule of Activities



<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Project Management	07/04 - 06/05	5,228,213
Design	07/06 - 06/12	571,150
Construction	07/06 - 06/12	5,140,350
Total Budgetary Cost Estimate:		10,939,713
Means of Financing		
<u>Funding Source</u>	<u>Amount</u>	
Public Utilities General Obligation Bonds	10,939,713	
Total Programmed Funding:		10,939,713
Future Funding Requirements:		0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75962 **Title: Water Main Replacement** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision – Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Citywide**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	<i>Non-Appropriated Programmed CIP Funding</i>				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
1,761,000	883,000	163,000	171,000	176,000	181,000	187,000	0

Description and Scope

The Department of Public Utilities is responsible for the operation & maintenance of approximately 546 miles of water mains; approximately 50 miles of which are constructed from 2" diameter galvanized pipe which is beyond its useful life and is deteriorated. This project provides for replacement of the 2" pipe with high density polyethylene pipe and also replaces the water service lines connected with the 2" main. Work will be performed with in-house and contractor forces.

Rationale

Replacement is dictated due to the age of the material; internal & external corrosion of the pipe (with resultant leaks; discolored water and reduced flow and pressure); and the potential for water quality problems.

Funding Strategy

This is an ongoing project and will continue until all the 2" galvanized pipe throughout the City is replaced.

Operating Budget Impacts

Project will reduce the annual maintenance budget (leak repairs and resultant pavement and sidewalk repairs) and will improve water quality.

Project Map

Schedule of Activities

**VARIOUS
LOCATIONS
CITYWIDE**

<u>Project Activities</u>	<u>From - To</u>	<u>Amount</u>
Project Management		883,000
Construction	07/06 - 06/12	878,000
Total Budgetary Cost Estimate:		<u>1,761,000</u>

Means of Financing

<u>Funding Source</u>	<u>Amount</u>
Public Utilities General Obligation Bonds	1,761,000
Total Programmed Funding:	<u>1,761,000</u>
Future Funding Requirements:	0

**City of Portsmouth
Fiscal Year 2008 Adopted Budget**

**Capital Improvements
Water**

Project: 75943 **Title: Water Plant Residuals Management and Disposal** **Status: Proposed**

Comprehensive Plan Information

Project Location

CIE Project: N/A **Plan Reference: CC Vision - Neighborhood** **District:**
LOS/Concurrency: N/A **Project Need: N/A** **Location: Lake Kilby Water Treatment Facility**

Programmed Funding

Programmed Funding	Appropriated To Date	Budgeted FY 2008	Non-Appropriated Programmed CIP Funding				Future Funding
			FY 2009	FY 2010	FY 2011	FY 2012	
7,833,500	4,433,500	0	1,700,000	0	1,700,000	0	0

Description and Scope

The Department of Public Utilities operates the lake Kilby Water Treatment Plant. The treatment process removes naturally occurring organic and inorganic particles suspended in the water. These particles are known as residuals. Currently the residuals removed in the treatment process are placed in a lagoon. Over its 24 year life the lagoon has accumulated residuals to the extent that it needs to be cleaned out over a period of time. This multi-year project provides for the restoration of the capacity of the lagoon by removing residuals by dewatering and disposal in approved landfills.

Rationale

- The present residuals lagoon has limited storage capacity remaining.
- Continued filling of the lagoon will lead to degradation of its effluent and environmental permit violations.
- New treatment processes have increased the amount of residuals produced.
- Restoration of the capacity of the lagoon will require dewatering, removal and off-site disposal of the residuals.
- Future construction of a land application project may be considered; however, that is outside the timeframe of this 5 year CIP.

Funding Strategy

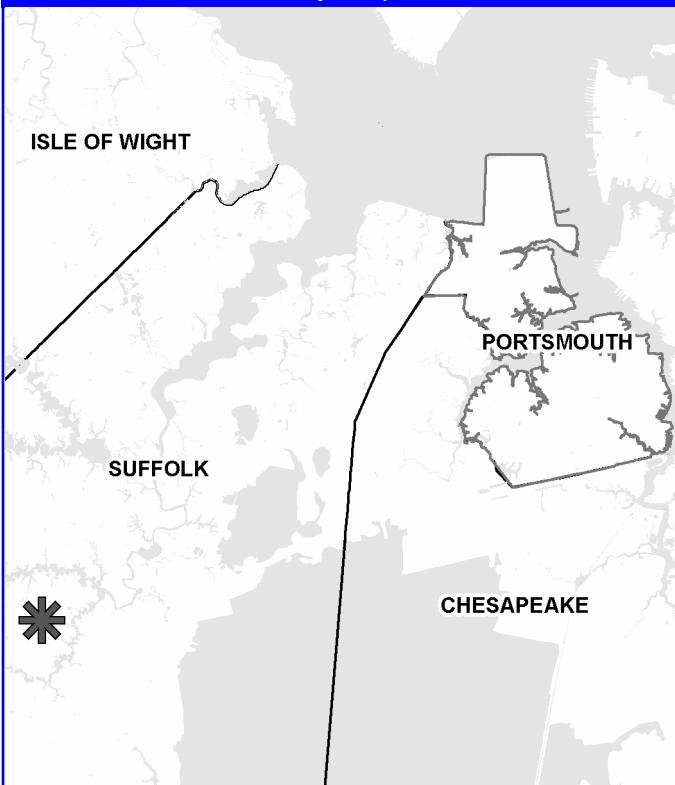
This is an on-going project that will continue as long as the City owns the residual lagoon. This work will be contracted every two years.

Operating Budget Impacts

Over the past 24 years residuals have been disposed of in a man-made lagoon at little cost. This lagoon is almost full. This project will fund disposal projects to both restore and maintain the capacity of the lagoon. Once the capacity is restored, a project to maintain capacity will be required approximately every three years.

Project Map

Schedule of Activities



Project Activities	From - To	Amount
Project Management	07/04 - 06/05	4,433,500
Design	07/08 - 06/11	340,000
Construction	07/08 - 06/11	3,060,000
Total Budgetary Cost Estimate:		7,833,500
Means of Financing		
Funding Source	Amount	
Public Utilities General Obligation Bonds	7,833,500	
Total Programmed Funding:		7,833,500
Future Funding Requirements:		0