



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

5636 Southern Boulevard
Virginia Beach, VA 23462
www.deq.virginia.gov

Robert G. Burnley
Director

Francis L. Daniel
Tidewater Regional Director
(757) 518-2000

STATE WATER CONTROL BOARD ENFORCEMENT ACTION SPECIAL ORDER BY CONSENT WITH THE HAMPTON ROADS SANITATION DISTRICT AND THE CITY OF NORFOLK

SECTION A: Purpose

This is a special order by consent issued under the authority of § 62.1-44.15(8a) of the Code of Virginia between the State Water Control Board, the Hampton Roads Sanitation District and the City of Norfolk to resolve certain alleged violations of environmental laws and regulations. This Order supersedes and replaces the Consent Special Order issued to the City of Norfolk and the Hampton Roads Sanitation District on December 17, 2001.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meanings assigned to them below:

1. "Code" means the Code of Virginia (1950), as amended.
2. "Board" means the State Water Control Board, a permanent citizen's board of the Commonwealth of Virginia as described in Code §§ 62.1-44.7 and 10.1-1184.
3. "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Code § 10.1-1183.
4. "Director" means the Director of the Department of Environmental Quality.
5. "Regional Office" means the Tidewater Regional Office of DEQ.
6. "Order" means this document, also known as a Consent Special Order.
7. "Regulation" means 9 VAC 25-31-10 *et seq.* - the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation.

8. "HRSD" means the Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia.
9. "Norfolk" means the City of Norfolk, Virginia, a municipal corporation of the Commonwealth of Virginia.
10. "SSES" means the Sanitary Sewer Evaluation Survey approved by DEQ on December 12, 2003.
11. "LTCP" means the Long Term Control Plan submitted to DEQ on July 31, 2003 and all supplements thereto.

SECTION C: Findings of Facts and Conclusions of Law

1. HRSD owns and operates a regional sanitary sewer transmission and treatment system designed pursuant to the Board's Sewage Collection and Treatment Regulations and HRSD's policies for system flows and pressures.
2. Norfolk owns a sanitary sewage collection system that connects to HRSD's regional sanitary sewer system.
3. The HRSD and Norfolk sanitary sewer systems receive infiltration and inflow and have experienced periodic failures due to system age and damage by contractors working in the public right-of-ways. Norfolk's system has also experienced grease and limited root intrusion problems leading to instances of backups, malfunction or rupture, resulting in reported overflows of untreated sewage.
4. On December 17, 2001, the Board entered into a consent special order with Norfolk and HRSD. The 2001 Order comprehensively addressed sanitary sewer overflows by requiring development of collection system plans, expenditure of \$13.5 million on capital improvements and system operation, and completion of the SSES and a gravity line inspection program in the City of Norfolk. In addition, the 2001 Order recites Norfolk's 2001 sewer rate increases and requires that Norfolk provide adequate funding to fulfill the requirements of the 2001 Order. Norfolk and HRSD are in compliance with the 2001 Order.
5. In 2003, Norfolk adopted sewer rate increases that provide for a 30% rate increase in fiscal year 2004, a 14% rate increase in fiscal year 2005, and a 4% annual rate increase after fiscal year 2005, subject to City Council's consideration. Norfolk anticipates that the aforementioned rate increases will be sufficient to fund, at minimum, the LTCP projects required in this Order.
6. Norfolk timely submitted the final SSES report to DEQ on July 31, 2003. DEQ approved the SSES by letter dated December 12, 2003. Overall results of the SSES revealed that grease was a predominant contributor to dry weather sanitary sewer overflows and that certain pumping station capacity limitations and negative slopes

in certain collection system lines were predominant causes of wet weather overflows. Norfolk has already begun to implement the recommendations of the SSES.

7. The SSES report recommends implementation of LTCP projects over fifteen years (in three five-year segments) to control the number and severity of overflow of sanitary sewage by reducing the amount of infiltration and inflow into Norfolk's collection system and improving its collection system performance and operation. The proposed projects are designed to address structural integrity deficiencies and hydraulic overload conditions for gravity system, pump station, and force main components. The proposed projects also address system-wide improvements, including control of inflow sources and the provision of emergency power generators at pumping stations near drinking water reservoirs.
8. The 2001 Order contemplates that, upon completion of the SSES, the Board and Norfolk would enter into a new order to provide a schedule for implementation of the SSES recommended system capital projects.
9. Code § 62.1-44.5.A and 9 VAC 25-31-50.A prohibit the discharge of sewage or other wastes into State waters, except in compliance with a certificate or permit issued by the Board. Implementation of LTCP projects and other requirements of this Order are necessary to ensure that Norfolk and HRSD comply with the referenced statutory and regulatory provisions.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of its authority in Code § 62.1-44.15(8a) orders, and HRSD and Norfolk hereby agree to the following:

1. HRSD shall perform the actions described in Appendix A of this Order.
2. Norfolk shall perform the actions described in Appendix B of this Order.
3. All submittals to DEQ required by this Order shall be mailed to: Department of Environmental Quality, Tidewater Regional Office, 5636 Southern Blvd., Virginia Beach, VA 23462, Attn.: Francis L. Daniel, Regional Director.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of HRSD and Norfolk or on its own motion after notice and opportunity to be heard.
2. This Order addresses collection system releases within Norfolk up to the date of execution of this Order by HRSD and Norfolk. It is recognized that, during the implementation of the remedial measures required in this Order, collection system releases may continue. Accordingly, pending completion of the rehabilitation projects referenced in this Order, HRSD and Norfolk understand and agree to use their best efforts to minimize collection system releases including, but not limited to,

compliance with the Norfolk Collection System Plan referenced in Appendix B hereto and the interim operating plan referenced in Appendices A and B hereto.

3. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the collection system as may be authorized by law; or (3) taking subsequent action to enforce this Order. This Order shall not preclude appropriate enforcement actions by other federal, state, or local regulatory authorities for matters not addressed herein.
4. For purposes of this Order and subsequent actions with respect to this Order, Norfolk and HRSD admit the jurisdictional allegations, contained herein, but they do not admit the factual findings and conclusions of law contained herein. This Order is made by agreement and with the consent of the parties and does not constitute an admission of violation of any federal, state or local law, rule, regulation, certificate, permit, or standard.
5. HRSD and Norfolk consent to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
6. HRSD and Norfolk declare they have received fair and due process under the Administrative Process Act, Code §§ 2.2-4000 *et seq.*, and the State Water Control Law, and waive their right to any hearing or other administrative proceeding authorized or required by law or regulation, and to judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.
7. Failure by HRSD or Norfolk to comply with their respective obligations under the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
8. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
9. HRSD and Norfolk shall be responsible for failure to comply with their respective obligations under this Order unless compliance is made impossible by earthquake, flood, other act of God, war, act of terrorism, strike, or such other occurrences beyond their respective control. HRSD and Norfolk must show that such circumstances resulting in noncompliance were beyond their respective individual control and not due to respective individual lack of good faith or diligence on their part. HRSD and Norfolk shall notify the Director of the Regional Office in writing when circumstances are anticipated to occur, are occurring, or have occurred that

may delay compliance or cause noncompliance with their respective obligations under this Order. Such notice shall set forth:

- a. the reasons for the delay or noncompliance;
- b. the projected duration of such delay or noncompliance;
- c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
- d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

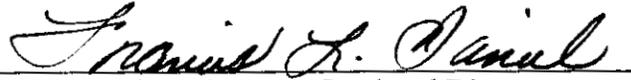
Failure to so notify the Director of the Regional Office within five (5) working days of learning of any condition listed above which HRSD or Norfolk intends to assert will result in the impossibility of compliance shall constitute waiver by that party of any claim of inability to comply with a requirement of this Order.

10. This Order is binding on the parties hereto and their respective successors in interest, designees, and assigns.
11. This Order shall become effective upon execution by the Director or his designee, HRSD, and Norfolk. Notwithstanding the foregoing, Norfolk and HRSD agree to be bound by any compliance date which precedes the effective date of this Order.
12. This Order shall continue in effect until:
 - a. Norfolk and HRSD petition the Director or his designee to terminate the Order after they have completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - b. The Director or the Board terminates this Order in his or its sole discretion upon 30 days written notice to HRSD and Norfolk.

Termination of this Order, or of any obligation imposed in this Order, shall not operate to relieve HRSD and Norfolk from their respective obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

13. By their signature below, HRSD and Norfolk voluntarily agree to the issuance of this Order.

AND IT IS SO ORDERED this 17 day of March, 2005.



Francis L. Daniel, Tidewater Regional Director,
for Robert G. Burnley, Director
Department of Environmental Quality

The terms and conditions of the Order are voluntarily accepted by HRSD:

Date: 1/13/05 By: D.R. Wheeler
D.R. Wheeler, General Manager

Commonwealth of Virginia
City/County of Virginia Beach

The foregoing instrument was acknowledged before me this 13th day of Jan., 2005, by
D. R. Wheeler, General Manager of HRSD, on behalf of HRSD.

1/13/05
Date

Shirley S. Croft
Notary Public

My commission expires: 4/30/05

The terms and conditions of the Order are voluntarily accepted by the City of Norfolk:

Date: January 21, 2005

By: Regina VK Williams
Regina VK Williams, City Manager

Attest:

R. Budig
Name:
City Clerk

Approved as to Form:
B.A. Pishko
Bernard A. Pishko, Esquire
City Attorney

Approved as to Content:
Kristen M. Lentz
Kristen M. Lentz, P.E.
Director of Utilities

Commonwealth of Virginia
City/County of Norfolk

The foregoing instrument was acknowledged before me this 21st day of January, 2005, by Regina VK Williams, City Manager of Norfolk, on behalf of the City of Norfolk.

1-21-05
Date

Sheela M. Meder
Notary Public

My commission expires: 8-31-06

Appendix A

1. HRSD shall consult and cooperate with Norfolk during the planning, construction, and testing of the LTCP projects, as well as the projects and activities required of HRSD in Appendix A.
2. HRSD shall conduct corrective actions in accordance with the schedule provided in Attachment A to this Order. HRSD may modify the schedule as needed to facilitate rehabilitation of the Norfolk sanitary sewer system and/or control sanitary sewer overflows. Proposed modifications must be submitted in writing to DEQ and Norfolk prior to their implementation. The description of the modification should identify the proposed addition/exception to the scheduled projects including the project location, should provide the reason that modification of the schedule is believed to be necessary, and should provide rescheduled dates for the remainder of the listed projects, if appropriate.
3. HRSD shall periodically provide to Norfolk data acquired from HRSD's Master Metering Program.
4. By November 1, 2005, and by each November 1 thereafter HRSD shall submit to DEQ, and simultaneously provide to Norfolk a copy of, an annual status report regarding HRSD's progress during the immediately preceding fiscal year toward completion of the projects discussed in paragraphs 1 and 2 above, including any anticipated project completion dates.
5. HRSD shall cooperate with Norfolk in the implementation of the interim operating plan for Norfolk pump stations 18, 23, 51, 52 and 57, dated January 12, 2004, as may be updated ("Interim Operating Plan"). The Interim Operating Plan (as may be updated) shall remain in effect for each such pump station sewershed until either (i) a finding by DEQ that no corrective actions or improvements are needed for that pump station sewershed based on the agency's evaluation of the Five Sewershed Report, or (ii) completion of any corrective actions or improvements to that pump station sewershed recommended by the Five Sewershed Report and approved by DEQ.
6. HRSD shall timely provide written comments to Norfolk regarding the review and approval of engineering plans and specifications submitted by Norfolk for LTCP Projects which may increase flows and/or pressures into the HRSD system.

Appendix B

1. Norfolk shall consult and cooperate with HRSD during the planning, construction, and testing of LTCP projects, as well as the projects and activities required of HRSD in Appendix A.
2. Norfolk shall allocate and spend no less than \$39,400,000 in project year dollars on conducting the LTCP sanitary sewer system rehabilitation projects and corrective actions scheduled for fiscal years 2004 through 2008 described in the SSES report referenced in Paragraph C.6 and 7 of the Order, as shown in the LTCP Schedule included as Attachment B attached to this Order or an amended Attachment B modified pursuant to subsections 2.a and 2.b and paragraph 7 below (the "Projects"). Said Projects are to be designed to reduce infiltration and inflow in the Norfolk sanitary sewer collection system, thereby reducing the occurrences of sanitary sewer overflows in the Norfolk and HRSD systems, and to improve Norfolk's collection system performance and operation.
 - a. Norfolk may, if it finds it to be necessary, substitute permanent diesel bypass pumps for the emergency generators proposed to be installed in the LTCP Schedule shown in Attachment B.
 - b. Norfolk may otherwise revise the LTCP Schedule as needed to reduce/control sanitary sewer overflows more effectively. Proposed modifications to the LTCP Schedule shown in Attachment B shall be submitted to DEQ for approval with a copy to HRSD prior to implementation. The description of the modification shall identify the proposed addition/exception to the LTCP Schedule, the proposed Project location, and the reason that the modification is believed to be necessary. In addition, proposed list modifications shall provide the estimated cost of any substituted Project and the rescheduled dates for the remainder of the listed Projects, if appropriate.
 - c. As soon as the data becomes available, but no later than June 30, 2009, Norfolk shall submit to the DEQ a report documenting Project expenditures (in Project year dollars) from fiscal year 2004 through fiscal year 2008 on program management and on making capital improvements to the sanitary sewer system infrastructure.
 - d. If budget constraints allow, and upon coordination and mutual agreement with HRSD, Norfolk shall undertake additional sewer system improvement and/or repair projects from fiscal years 2004 through fiscal year 2008 in addition to and consistent with the list of LTCP projects in Attachment B which are designed to reduce or control sanitary sewer overflows. Any such additional projects shall be described in the annual report required by paragraph 10 below.
3. From fiscal year 2002 through fiscal year 2004, Norfolk shall have allocated and expended at least \$13.5 million for the projects listed in Attachment C of this Order. By December 31, 2004, Norfolk shall provide to DEQ a report documenting the expenditure of at least \$13.5 million from fiscal year 2002 through Norfolk's fiscal year 2004 on such projects.
4. Norfolk shall continue to implement its collection system plan, as submitted to DEQ on February 14, 2002. The collection system plan addresses the capacity, maintenance, operation, and management of the Norfolk collection sanitary sewer system.

5. Norfolk shall continue to pursue available federal and state grant and loan funding for the repair, improvement and operation of its sanitary sewer system and shall provide DEQ with copies of any approvals for such funding within 30 days of receipt of such approval.
6. Norfolk shall ensure that adequate funding is available to fulfill its obligations set forth in this Order.
7. Norfolk shall perform an in-depth evaluation of the sanitary sewer components associated with Norfolk's pump stations 18, 23, 51, 52, and 57 and identify areas requiring rehabilitation, improvement, and/or maintenance to reduce SSOs and infiltration and inflow. Norfolk shall propose recommendations for reducing SSOs and infiltration and inflow in said components. Norfolk shall submit to DEQ for its review and approval, and simultaneously copy HRSD with a copy of the complete evaluation report for the aforementioned pump stations (hereinafter referred to as the "Five Sewershed Report") within one year of the effective date of this Order. The Five Sewershed Report shall include the evaluation's methodology, findings, recommendations, and a proposed implementation schedule. Upon approval by DEQ, the recommendations and implementation schedule shall be reflected as a modification to the 15-year LTCP Schedule in the SSES. To the degree that such approved implementation schedule calls for the commencement of projects in the aforementioned five sewersheds by the end of Norfolk's 2008 fiscal year that are not already listed in Attachment B, Attachment B shall be amended as needed to reflect their implementation schedule and any needed substitutions for existing Projects. Attachment B as may be amended in this manner shall be a part of and enforceable under this Order.
8. Engineering plans and specifications for all LTCP Projects and approved modifications to said Projects which may result in increased flows and/or pressures into the HRSD system shall be submitted to HRSD for comment and approval prior to construction.
9. Norfolk shall cooperate with HRSD in the implementation of the interim operating plan for Norfolk pump stations 18, 23, 51, 52 and 57, dated January 12, 2005, as may be updated ("Interim Operating Plan"). The Interim Operating Plan (as may be updated) shall remain in effect for each such pump station sewershed until either (i) a finding by DEQ that no corrective actions or improvements are needed for that pump station sewershed based on the agency's evaluation of the Five Sewershed Report and such finding is approved by DEQ, or (ii) completion of any corrective actions or improvements to that pump station sewershed recommended by the Five Sewershed Report and approved by DEQ.
10. By November 1, 2005, and annually thereafter through the term of this Order, Norfolk shall submit to DEQ, and simultaneously copy HRSD with, an annual status report regarding Norfolk's progress during the immediately preceding fiscal year in meeting the LTCP Schedule in Attachment B (as said schedule may be amended pursuant to this Order) and the schedule of the Five Sewershed Report. The status reports due November 1, 2005, November 1, 2006, and November 1, 2007 shall also include a list of Projects that have been funded as part of Norfolk's FY06, FY07, and FY08 budgets, respectively
11. Norfolk shall periodically provide to HRSD data from the City's flow metering system. Norfolk shall also share with HRSD as soon as practicable, but prior to commencing construction, all plans, preliminary and final designs, timelines, and engineering calculations related to the improvements listed in Attachment B and the Five Sewershed Report.

ATTACHMENT A

HRSD Corrective Action Plan

Line No.	Line Name	Corrective Action	Estimated Completion	Remarks
46, 52	North Trunk Sewers Section W 10" Force Main Powhatan Avenue (SF-046) and South Trunk Sewers Section R 10" Force Main (SF-052)	Evaluate approximately 5,000 LF of 10" pipeline along Powhatan Avenue- from HRSD Powhatan Ave PS to Norfolk PS 11, determine how much is deteriorated and rehabilitate or replace as needed	June 2008	This project is being pursued as a System Assets Upkeep project.
47	Lamberts Point Reinforcement 54" Gravity	Rehabilitate approximately 3,400 LF of deteriorated 54" reinforced concrete gravity main along Bluestone Avenue and 43rd Street to the VIP Treatment Plant.	Completed April 2004	This project is being pursued as a System Assets Upkeep project. Original rehabilitation contract was terminated. New rehabilitation contract awarded Oct 2003.
49	North Trunk Sewers Section D 30" Gravity	Rehabilitate or replace approximately 800 LF of deteriorated sections of 30" reinforced concrete pipe along 43rd Street between Hampton Blvd and Bluestone Ave.	June 2008	This project is being pursued as a System Assets Upkeep project.
51	North Trunk Sewer Section D 24" Force Main	Rehabilitate or replace approximately 250 LF of deteriorated sections of 24" RCCP force main along 42nd Street between Hampton Blvd and Bluestone Ave.	Completed October 2004	This project is being pursued as a System Assets Upkeep project.
53	Lamberts Point Influent Reinforcement 42" Gravity	Replace approximately 200 LF of liner for the 42" pipeline that failed along Bluestone Ave.	Completed April 2004	This project is being pursued as a System Assets Upkeep project.
89	Broad Creek Sewage Discharge Line 24" Gravity	Rehabilitate or replace approximately 100 LF of deteriorated 24" pipeline under R/R crossing near intersection of Virginia Beach Blvd and Ballentine Blvd.	June 2008	This project is being pursued as a System Assets Upkeep project.
	Installation of Master Metering Program to Serve Norfolk	Install flow and pressure meters necessary to separate out Norfolk's portion of flow entering the HRSD system	May 2007	This is part of a CIP project.

ATTACHMENT B

Norfolk LTCP Schedule

LTCP Project	Sewershed / Pumping Station Name	Pump Station/Project Address	Project Neighborhood	Type	Ultimate Project Completion Date	Description
Bi-County Road	HRSD-108	Project Address: Bi-County Road. Pump Station Address: 948 Dovercourt Rd.	South Bayview	Special Project	2008	Problem investigations and sewer modifications as required to correct sewer surcharging conditions.
Manhole Inserts	System Wide	N/A	N/A	Manhole Inserts	2008	Manhole Inserts
Inflow Source Repairs	System Wide	N/A	N/A	Inflow Source Controls	2008	Inflow Source Repairs List of eliminated sources to be provided in the annual status reports.
Install Emergency Generators	System Wide	N/A	N/A	Emergency Power Generation (Generators or Pumps)	2008	Installation of Emergency Generators or Equivalent Engineering Solutions (e.g. stand by pumps)
PS-007 Sewershed	PS-007	1800 E. Brambleton Ave.	Haynes Tract, North Brambleton, South Brambleton	Gravity System	2008	Rehabilitate/replace deteriorated sections of mainline gravity sewers, manholes, and house lines in public right-of-way. Includes field investigations to establish site-specific needs.
PS-008 Sewershed (Part A)	PS-008	871 C Avenue	Barraud Park, Belmont Place, Gowrie Park, Huntersville, Lindenwood, St. Julian - Princess Anne Road, Villa Heights	Gravity System	2013	Rehabilitate/replace deteriorated sections of mainline gravity sewers, manholes, and house lines in public right-of-way. Includes field investigations to establish site-specific needs.

ATTACHMENT B – Norfolk LTCP Schedule (cont.)

LTCP Project	Sewershed / Pumping Station Name	Pump Station/Project Address	Project Neighborhood	Type	Ultimate Project Completion Date	Description
PS-010 Sewershed	PS-010	845 W. 38th Street	Colley Avenue, North Colonial Place, Riverview, South Colonial Place, Virginia Place	Gravity System	2013	Rehabilitate/replace sewer pumping station, deteriorated sections of mainline gravity sewers, manholes, and house lines in public right-of-way. Includes field investigations to establish site-specific needs.
Fairmount Park	PS-018 & PS-021	2510 Chesapeake Blvd. (PS-018) & 2416 Pershing Ave. (PS-021)	Old Lafayette Shores, Lafayette Park, Lafayette Terrace, Willard Park	Gravity System	2018	Rehabilitate/replace sewer pumping station, deteriorated sections of mainline gravity sewers, manholes, and house lines in public right-of-way. Includes field investigations to establish site-specific needs.
PS-017 Sewershed	PS-017	924 Balview Ave.	Pinewell, Bayview, Lenox, Oceanair	Gravity System	2013	Rehabilitate/replace deteriorated sections of mainline gravity sewers, manholes, and house lines in public right-of-way. Includes field investigations to establish site-specific needs.
PS-027 Sewershed	PS-027	101 North Shore Road	Colony Point, Denby Park, Granby Park, Monticello Village Oak Grove, Pinehurst, Rosegardens, Suburban Park, Talbot Park	Gravity System	2013	Rehabilitate/replace deteriorated sections of mainline gravity sewers, manholes, and house lines in public right-of-way. Includes field investigations to establish site-specific needs.
PS-047 Sewershed	PS-047	1361 Sheppard Ave.	Snug Harbor, Cherokee Heights, Forrest Park	Force Main	2008	Extend and replace the existing 8-inch cast iron force main.
PS-109 Sewershed	PS-109	7413 Glen Cove Pl.	Lochhaven	Gravity System	2008	Rehabilitate/replace deteriorated sections of mainline gravity sewers, manholes, and house lines

ATTACHMENT B – Norfolk LTCP Schedule (cont.)

LTCP Project	Sewershed / Pumping Station Name	Pump Station/Project Address	Project Neighborhood	Type	Ultimate Project Completion Date	Description
						in public right -of-way. Includes field investigations to establish site-specific needs.
Related Program Management and Updates	System Wide	N/A	N/A	LTCP Maintenance	Ongoing	Activities required to maintain the LTCP schedule and adjust the program to meet objectives

ATTACHMENT C

FISCAL YEAR 2002 – 2004 PROJECTS

- 1. Sanitary Sewer Evaluation Study, cost \$2.8 million.**
- 2. Wastewater system: Completion of outstanding as-built drawings and electronic storage of same, cost \$200,000.**
- 3. Campostella Phase 1 Sewer Replacement: Replacement of the sewer system installed in the 1900-1920 time frame, cost \$3.0 million.**
- 4. Estabrook Park Sewer Rehabilitation: Includes system cleaning, TV inspection and selected repairs such as slip-lining as indicated, cost \$875,000.**
- 5. ODU Village Sewer System: Replacement of the sewer system in renewal areas at Old Dominion University, \$1.0 million.**
- 6. Colley Ave Sewer Replacement: Replacement of sewers system in Colley Avenue renewal area, cost \$550,000.**
- 7. Miscellaneous Sewer Projects: Such as installation of sewers in small areas presently serviced by septic tanks and the installation of house line cleanouts, cost \$1,250,000.**
- 8. Hampton Blvd. Sewer: Replacement and upgrade of sewers outside the area of a VDOT sewer relocation project, cost \$350,000.**
- 9. Wastewater Pump Station #44 Rehabilitation, cost \$190,000.**
- 10. Wastewater Pump Station #45 Rehabilitation, cost \$190,000.**
- 11. Wastewater Pump Station #48 Replacement, cost \$560,000.**
- 12. Wastewater Pump Station #51 Replacement, cost \$560,000.**
- 13. Wastewater Pump Station #52 Replacement, cost \$560,000.**
- 14. Wastewater Pump Station #57 Replacement, cost \$863,000.**
- 15. Construction of Filer Street Wastewater Pump Station: New pump station to eliminate overflow condition resulting from the failure of existing sewer line in a wetland area, cost \$205,000.**
- 16. Fairmont Park Wastewater System Upgrade: Includes the design and construction of a new pump station and the design of the first phase of a collections system replacement, cost \$1.3 million.**

Except as to item 1 above, Norfolk may revise this list based on future or changing needs to address sanitary sewer system capital improvements.