COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN VIRGINIA REGIONAL OFFICE
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L. Preston Bryant, Jr.
Secretary of Natural Resources

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Director

~~Jeffery A. Steers~~
Regional Director

STATE WATER CONTROL BOARD ENFORCEMENT ACTION
SPECIAL ORDER BY CONSENT
ISSUED TO THE
CITY OF FREDERICKSBURG
FOR THE
FREDERICKSBURG WASTEWATER TREATMENT FACILITY
(VPDES PERMIT NO. VA0025127)

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code §§ 62.1-44.15 8(a), 8(d), and 8(f) and 10.1-1185 between the State Water Control Board and the City of Fredericksburg regarding the Fredericksburg Wastewater Treatment Facility, for the purpose of resolving certain violations of the State Water Control Law and Regulations.

SECTION B: Definitions

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

1. "Va. Code" means the Code of Virginia (1950), as amended.

2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.

4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Special Order.

6. "WWTF" or "facility" means the Fredericksburg wastewater treatment facility located in the City of Fredericksburg, Virginia.

7. "NRO" means the Northern Regional Office of DEQ, located in Woodbridge, Virginia.

8. "Permit" means Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0025127.

9. "Regulations" mean the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulations, 9 VAC 25-31-10, *et seq.*

SECTION C: Findings of Fact and Conclusions of Law

1. The City of Fredericksburg ("City") owns and operates the WWTF. The WWTF is a 4.5 MGD plant located in the City of Fredericksburg and discharges into the Rappahannock River.

2. A Consent Special Order was issued to the City on December 18, 2006 ("2006 Order") to resolve violations of the Permit including exceeding effluent limits, operational and maintenance deficiencies, and failing to meet Reliability Class I requirements. The City fulfilled the requirements of Appendix A of the 2006 Order, which included repairing the clarifiers and belt filter press, initiating WWTF performance testing, and submitting a revised Operations and Maintenance Manual (O&M Manual). The 2006 Order was cancelled on April 16, 2007.

3. The Regulations, at 9 VAC 25-31-50 state that:"[E]xcept in compliance with a VPDES permit, or another permit, issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances or otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses".

4. The Board has evidence to indicate that the City violated VPDES Permit Regulation, 9 VAC 25-31-50.A and the Permit as noted in the following Warning Letters (WLs) and Notices of Violations (NOVs):

   - NOV No. W2007-02-N-0007, dated February 9, 2007 citing a violation of Part I, Page 7, Section B, Number 1.c. of the Permit for failing to ensure proper QA/QC protocols were followed during sampling and analytical procedures as was shown in a review of laboratory documentation for December 2006 and a violation of Part II, Page 7, Section Q of the Permit for failing to properly

operate and maintain the primary clarifiers, secondary clarifiers, and chlorine contact basin as observed during a inspection conducted on January 23, 2007.

- WL No. W2007-04-N-1015, dated April 10, 2007 citing a violation of the Part I, Page 1, Section A, Number 1 of the Permit for exceeding the weekly concentration average maximum limit and the monthly concentration average limit for Total Suspended Solids (TSS) as reported on the February 2007 Discharge and Monitoring Report (DMR) and for reporting a sample not containing the necessary amount of Total Residual Chlorine (TRC) prior to dechlorination.

- NOV No. W2007-05-N-0004, dated May 10, 2007 citing violations of Part I, Page 1, Section A, Number 1 of the Permit for exceeding the weekly concentration average maximum limit and monthly concentration average limit for TSS as reported on the March 2007 DMR and a violation of Part II, Page 2, Section H, Number 1 of the Permit for two overflows that occurred at the influent pump station and flowed into the Rappahannock River on March 6 and March 16, 2007 caused by a wet weather event.

- NOV No. W2007-06-N-0012, dated June 8, 2007 citing violations of Part I, Page 1, Section A, Number 1 of the Permit and Part II, Page 2, Section H, Number 1 of the Permit, as noted on the facility's April 2007 DMR for the following:

    - exceeding the weekly concentration average maximum limit, the monthly concentration average limit, the weekly loading average maximum limit, and the monthly loading average limit for TSS;

    - exceeding the monthly loading average limit and monthly concentration average limit for Total Phosphorous;

    - exceeding the weekly concentration average maximum limit, the monthly concentration average limit, the weekly loading average maximum limit, and the monthly loading average limit for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$);

    - exceeding the monthly concentration average limit and the weekly concentration average maximum limit for Ammonia;

    - discharging untreated sewage into the Rappahannock River due to overflows that occurred at the influent pump station on April 15 and April 25, 2007 caused by the loss of power at the pump station.

- NOV No. W2007-07-N-009, dated July 12, 2007 citing the following violations of:

- Part II, Page 2, Section H, Number 1 of the Permit for an unpermitted discharge into state waters stemming from an overflow event on May 13, 2007 due to operator error and lack of sufficient back up to the WWTF influent pumps.

- Part I, Page 17, Section F, Number 5 of the Permit for failing to meet Reliability Class I standards stemming from insufficient duplication of essential equipment due to the lack of backup to the influent pumps serving the facility.

- Part 1, Page 1, Section A, Number 1 of the Permit for exceeding the weekly loading average maximum limit, the weekly concentration average maximum limit, and the monthly concentration average maximum limit for TSS, the monthly loading average limit, the weekly concentration average maximum limit and the monthly concentration average limit for Total Kjeldahl Nitrogen (TKN) and for failing to meet the minimum limit for TRC as reported on the May 2007 DMR.

5. In addition to those violations noted in the February NOV found during DEQ's January inspection, DEQ staff also observed general maintenance issues such as; animal burrows under tanks, oil, debris, and sludge within the drive pits for the oxidation ditch, a non-functional primary effluent pump and spilled polymer. These items were noted within DEQ's inspection report sent to the City on February 12, 2007. Many of these items were also noted as needing correction during a previous DEQ inspection on April 27, 2006.

6. The City responded to the NOVs in letters dated March 2, 2007 and May 18, 2007. Within its response, it outlined steps it has taken including amending its Standard Operating Procedures (SOPs) to ensure compliance with QC procedures and working to address the solids inventory in the facility's system to reduce TSS and improve treatment and effluent quality. Additionally, the City asserts that the March 6, 2007 overflow was caused by a power failure due to a transformer issue, which has since been resolved and that the March 16, 2007 overflow was caused by failure of the influent pumps, which the City is working to address. The City reported both overflows in compliance with State Water Law and Regulation.

7. DEQ conducted a site visit of the facility on March 19, 2007 and found that some of the deficiencies and maintenance issues first noted during the January inspection had improved including the cleaning of the primary clarifiers, chlorine contact chambers, and polymer area in the oxidation ditch. In addition, the City had hired a trapper to address the animal burrows.

8. DEQ met with the City on April 13, 2007, at which time the City presented improvements made at the facility in response to previous DEQ inspection

reports. DEQ also presented measures to increase the efficiency and effectiveness of the treatment process. These actions have been incorporated into Appendix A of the Order.

9. DEQ conducted an additional inspection of the WWTF on June 5, 2007 and made among others, the following observations:

- Both primary clarifiers were out-of service for cleaning and being bypassed directly to the oxidation ditch. Primary clarifier 2 was full of solids. The solids smelled as if they had gone septic.

- There were new holes around the solids holding tank indicating the a continuing problem with animal burrowing.

- Only two of the four influent pumps were in service, one of which is necessary to pump influent to FMC (another wastewater treatment facility located in Spotsylvania County) and one of which is used to serve the facility. Reliability Class I standards require operable backups for both pumps. Per the City's Permit, it is required to meet Reliability Class I standards.

- Solids had built up on the equipment and floors within the belt filter press building.

- The chlorine addition system was not operational and instead chlorine was being fed by suspending buckets with drilled holes and filled with chlorine tablets in the chlorine contact tanks.

- The digesters were still inoperable and still filled with solids.

10. DEQ conducted a site visit on June 25, 2007 and noted many improvements. The WWTF staff was working to remove solids remaining within the primary clarifier, the new chlorine vacuum system was operational, and general housekeeping issues were greatly improved.

11. DEQ conducted an inspection of the WWTF on July 16, 2007 in response to odor complaints received about the facility. During this inspection DEQ staff found that the effluent discharge was a dark tan color and was foaming before it entered the discharge pipe leading to the Rappahannock River. DEQ staff then observed a visible plume in the river where the underground outfall pipe discharges. The City informed DEQ later that day that the influent pump used to pump flow to FMC was out of service. This resulted in increased flows being sent to the facility. Due to these additional flows through the plant, and a build up of solids within the plant, partially treated sewage was released through the outfall into the river. The City was able to have the pump repaired and back in service on July

19, 2007. DEQ observed, on July 19th that upon the City's pumping flow to FMC, the plume dissipated.

12. DEQ staff met with City representatives on July 20, 2007 to discuss the recent events. The City advised that it had procured a portable pump to use as a back-up in the event that the FMC pump failed again. DEQ requested that the City test the portable pump at a time of low flow to ensure that it would be capable of pumping flow to FMC.

13. DEQ issued the City a NOV on July 24, 2007 citing a violation of the Permit Part I, Page 17, Section F, Number 5 for failing to meet Reliability Class I requirements stemming from not having the required number of influent pumps operational.

14. DEQ conducted site visits at the WWTF on July 23 and 24, 2007 and found that despite pumping flow to FMC, the facility was still discharging a plume to the river consisting of partially treated sewage. This was due to high level of solids remaining within the facility.

15. DEQ received the City's July DMR on August 13, 2007 and noted the following violations of Part I, Page 1, Section A, Number 1 of the Permit in NOV No. W2007-09-N-0009, dated September 6, 2007 :

    - exceeding the weekly concentration maximum limit, the monthly concentration average limit, the weekly loading maximum limit, and the monthly loading average limit for TSS;
    - exceeding the monthly concentration average limit and the monthly loading average limit for Total Phosphorus;
    - failing to meet the minimum instant residual limit for Chlorine;
    - exceeding the weekly concentration maximum limit and the monthly concentration average limit for $CBOD_5$;
    - exceeding the weekly concentration maximum limit, the monthly concentration average limit, the weekly loading maximum limit, and the monthly loading average limit for TKN.

16. DEQ received the City's August DMR on September 10, 2007 and noted the following violations of Part I, Page 1, Section A, Number 1 of the Permit in NOV No. W2007-10-N-0009, dated October 3, 2007:

    - exceeding the monthly loading average limit, the weekly concentration average limit, and the monthly concentration average limit for TKN;

- failing to meet the minimum instant residual limit for Chlorine.

17. DEQ staff conducted an audit of the City's pretreatment program on August 15, 2007 and noted the following violations of Part I, Page 9, Section D, Number 1 of the Permit:

    - failure to produce pretreatment program records for inspection by DEQ staff.

    - failure to notify DEQ of nonsubstantial modifications to the pretreatment program stemming from the City failing to request an amendment to the Approved Program's Significant Industrial User (SIU) Listing upon the closure of a SIU.

    - failure to have sufficient resources and qualified personnel to carry out the authority and procedures of the pretreatment program stemming from the City staff's lack of knowledge of the pretreatment program.

SECTION D: Agreement and Order

By virtue of the authority granted it in Va. Code § 62.1-44.15 8(a), 8(d), and 8(f), the Board orders the City, and the City voluntarily agrees to perform the actions described in Appendices A and B of this Order.

In addition, the Board orders the City, and the City voluntarily agrees to pay a civil charge of $96,000.00 in settlement of the violations cited in this Order, to be paid as follows:

1. The City shall pay $10,000.00 of the civil charge within 30 days of the effective date of the Order in settlement of the violations cited in this Order. Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia", delivered to:

    Receipts Control
    Department of Environmental Quality
    Post Office Box 1104
    Richmond, Virginia 23218

    The payment shall include the City's Federal Tax ID.

2. The City shall satisfy the remaining portion of the civil charge by satisfactorily completing the Supplemental Environmental Project (SEP), with a minimum value of $86,000.00, as described in Appendix B of this Order.

3. By signing this Order, the City certifies that it has not commenced performance of the SEP before DEQ identified the violations in the Order and approved the SEP.

4. The City acknowledges that it is solely responsible for completing the SEP project. Any transfer of funds, tasks, or otherwise by the City to a third party, shall not relieve the City of its responsibility to complete the SEP as described in this Order.

5. In the event that the City publicizes the SEP or the SEP results, the City shall state in a prominent manner that the project is part of a settlement for an enforcement action.

6. The Department has the sole discretion to:

   a. Authorize any alternate SEP proposed by the City; and

   b. Determine whether the SEP, or alternate SEP, has been completed in a satisfactory manner.

7. Should the Department determine that the City has not completed the SEP, or alternate SEP, in a satisfactory manner, the Department shall so notify the City in writing. Within 30 days of being notified, the City shall pay the amount specified in Paragraph D.2., above, as provided in D., above.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of the City, for good cause shown by the City, or on its own motion after notice and opportunity to be heard.

2. This Order addresses and resolves only those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking action regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the WWTF; 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. However, this Order shall preclude any such action against the City to the extent that such actions are barred by the Clean Water Act § 309 (g) and/or Va. Code § 62.1-44.15 (8f).

3. For purposes of this Order and subsequent actions with respect to this Order, the City admits the jurisdictional allegations, but does not admit nor deny 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, standard, plan, or manual.

4. The parties agree to venue in the Circuit Court of the City of Fredericksburg for any civil action taken to enforce the terms of this Order.

5. The City declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 2.2-4000 *et seq.*, and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the City's right to any administrative proceeding for, or to judicial review of, any action taken by the Board to terminate, change the terms of, or enforce this Order, or any other Board action that arises from the facts stated herein.

6. Failure by the City to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall act to waive or bar 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.

7. 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.

8. The City shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or other such circumstance. The City must show that such circumstances resulting in noncompliance were beyond its control and not due to a lack of good faith or diligence on its part. The City shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of this Order. Such notice shall set forth:

   a. The reasons for the delay or noncompliance;

   b. The projected duration of any 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 in writing within five (5) working days of learning of any condition above, which the City intends to assert will result in the impossibility of compliance, shall constitute a waiver of any claim of inability to comply with a requirement of this Order, unless, given the nature of the event, such full notification cannot be made.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. Any plans, reports, schedules or specifications attached hereto or submitted by the City and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.

11. This Order shall become effective upon execution by both the Director or his designee and the City. Notwithstanding the foregoing, the City agrees to be bound by any compliance date which precedes the effective date of this Order.

12. This Order shall continue in effect until:

    a. The City petitions the Director or his designee to terminate the order after it has 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 Board terminates the Order in his or its sole discretion upon 30 days written notice to the City; provided, however that the City shall have the rights specified in Section E.5. upon termination.

    Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve the City from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

13. By its signature below, the City voluntarily agrees to the issuance of this Order.

14. The undersigned representative of the City certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind the City to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of the City.

And it is so ORDERED this _____day of _____, 2007.

_____

Thomas A. Faha, NRO Deputy Regional Director
Department of Environmental Quality

The City voluntarily agrees to the issuance of this Order.

By: Phillip L. Rodenberg

Title: City Manager

Date: October 10, 2007

Commonwealth of Virginia

City/~~County~~ of Fredericksburg

The foregoing document was signed and acknowledged before me this 10 day of October, 2007, by Phillip L. Rodenberg, who is
(Phillip L. Rodenberg)

the City Manager of the City on behalf of the City

Notary Public

My commission expires: November 30, 2010

TONYA B. LACEY
NOTARY PUBLIC
REG. #322740
MY COMMISSION EXPIRES
COMMONWEALTH OF VIRGINIA

APPENDIX A

The City shall:

1. Submit to DEQ for review and approval by February 1, 2008, an assessment of the WWTF, including the condition of and needed repairs of all mechanical equipment, all process units and plant infrastructure. The assessment shall be completed by a licensed engineer, shall include recommendations and a schedule for the repairs or upgrades that need to be made to the WWTF, and identify where the current O&M Manual may need to be revised to accommodate such recommendations to ensure consistent compliance with the City's Permit. Upon approval by DEQ, the repair and upgrade recommendations and schedule shall become an enforceable part of this Order.

2. Submit to DEQ for review and approval by February 1, 2008, a Preliminary Engineering Report (PER) that evaluates the options of either refurbishing the primary clarifiers and digesters or proposes an alternative solids treatment method. The City shall submit plans and specifications to DEQ for the approved option within 30 days of DEQ approval of the PER. Within 15 days of DEQ approval of the plans and specifications, the City shall submit a plan and schedule of implementation for the approved option that shall become enforceable under the Order.

3. Prepare and submit to DEQ for review and approval by November 1, 2007 a plan and schedule of implementation specifically addressing how the City plans to meet Reliability Class I requirements. As of the date of the City's execution of this Order, DEQ is aware of only one Class I requirement, i.e. WWTF influent pumps that needs to be addressed to ensure continued compliance with Reliability Class requirements, therefore, DEQ anticipates that on November 1, 2007, the City will prepare and submit a plan for the repair and upkeep of said pumps. Upon approval by DEQ, the plan and schedule shall become an enforceable part of this Order. If at the time of approval, DEQ notes other reliability class requirements that are not being met, DEQ will notify the City and the City will submit an amended plan within 30 days of notification.

4. Calculate a mass balance for solids in the WWTF on a monthly basis beginning November 1, 2007 and continuing for the life of this Order. The mass balance calculations shall be due by the 10th of each month and shall be submitted with the monthly DMR. After three months of calculations, the City shall perform an evaluation of the data to ensure that the difference between the quantity of solids entering the facility and exiting the facility is not greater than 15% and that accumulation of solids in the WWTF is not adversely affecting effluent quality or causing violations of effluent limits. The evaluation shall be submitted to DEQ, for review and approval, with DMR due April 10, 2008. If upon review, DEQ determines that the evaluation supports a finding of solids accumulation and potential adverse effects on effluent quality, the City shall submit to DEQ for review and approval a plan and schedule detailing steps that the City will take to alleviate the solids accumulation. The plan and schedule shall be due within

30 days of notification by DEQ that it has reached this conclusion. Upon approval said plan and schedule shall become a part of and enforceable under the terms of this order.

5. Beginning on November 10, 2007, provide a monthly report on the WWTP's belt filter press and lime stabilization operations, including a description of any significant maintenance issues related to the press and solids stabilization operations. Included in this report shall be data regarding pH and detention time and the amount of sludge processed and hauled offsite from the facility. Said report shall be submitted concurrently with the monthly DMR.

6. Develop by October 15, 2007, a procedure that documents when facility employees contact Spotsylvania County for plant assistance, including why the contact was made and what the outcome was. Said document shall be stored at the facility and available for review upon request by DEQ staff.

7. Prepare and submit to DEQ, for review and comment by December 1, 2007, a report that describes the Infiltration and Inflow (I&I) Program administered by the City. This report shall include at a minimum: (1) a description of all methods of I&I detection, evaluations and analysis used by the City; (2) a schedule on which said methods of detection, evaluation and analysis have been or will be performed in order to eliminate or reduce I&I within the City's sanitary sewer collection system; (3) the number of dedicated staff for I&I reduction and elimination activities, their duties and their management structure; and (4) budget information for I&I evaluation and reduction/elimination activities for the past five years. Additionally, the report shall include description of contemplated future I&I Program activities within the City's sanitary sewer collection system for the next three years. This report is for informational purposes only and the City reserves the right to adjust its I&I program within its discretion.

APPENDIX B

The City shall perform the SEP identified below in the manner specified in this Appendix.

1. The SEP to be performed by the City is donating $90,000.00 to the Tri-County/City Soil and Water Conservation District (SWCD) for non-point source pollution control projects within the City or for City riparian lands.

2. The SEP shall be completed within 60 days of the execution of this Order and the City shall notify DEQ in writing within 90 days from the effective date of this Order, that the SEP has been completed in accordance with the terms of the Order.

3. Documents to be submitted to the Department, other than the civil charge payment described in Section D of the Order, shall be sent to:

Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193
ATTN: Enforcement Division