

TENTATIVE AGENDA
STATE WATER CONTROL BOARD MEETING
TUESDAY, JULY 29, 2008
AND
WEDNESDAY, JULY 30, 2008 (if necessary)

House Room C
General Assembly Building
9th & Broad Streets
Richmond, Virginia

Convene – 9:30 a.m. (Both Days)

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- IX. Consent Special Orders (Oil)** Davenport K
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ADJOURN

NOTE: The Board reserves the right to revise this agenda without notice unless prohibited by law. Revisions to the agenda include, but are not limited to, scheduling changes, additions or deletions. Questions arising as to the latest status of the agenda should be directed to Cindy M. Berndt at (804) 698-4378.

PUBLIC COMMENTS AT STATE WATER CONTROL BOARD MEETINGS: The Board encourages public participation in the performance of its duties and responsibilities. To this end, the Board has adopted public participation procedures for regulatory action and for case decisions. These procedures establish the times for the public to provide appropriate comment to the Board for their consideration.

For REGULATORY ACTIONS (adoption, amendment or repeal of regulations), public participation is governed by the Administrative Process Act and the Board's Public Participation Guidelines. Public comment is accepted during the Notice of Intended Regulatory Action phase (minimum 30-day comment period and one public meeting) and during the Notice of Public Comment Period on Proposed Regulatory Action (minimum 60-day comment period and one public hearing). Notice of these comment periods is announced in the Virginia Register and by mail to those on the Regulatory Development Mailing List. The comments received during the announced public comment periods are summarized for the Board and considered by the Board when making a decision on the regulatory action.

For CASE DECISIONS (issuance and amendment of permits and consent special orders), the Board adopts public participation procedures in the individual regulations which establish the permit programs. As a general rule, public comment is accepted on a draft permit for a period of 30 days. If a public hearing is held, there is a 45-day comment period and one public hearing. If a public hearing is held, a summary of the public comments received is provided to the Board for their consideration when making the final case decision. Public comment is accepted on consent special orders for 30 days.

In light of these established procedures, the Board accepts public comment on regulatory actions and case decisions, as well as general comments, at Board meetings in accordance with the following:

REGULATORY ACTIONS: Comments on regulatory actions are allowed only when the staff initially presents a regulatory action to the Board for final adoption. At that time, those persons who participated in the prior proceeding on the proposal (i.e., those who attended the public hearing or commented during the public comment period) are allowed up to 3 minutes to respond to the summary of the prior proceeding presented to the Board. Adoption of an emergency regulation is a final adoption for the purposes of this policy. Persons are allowed up to 3 minutes to address the Board on the emergency regulation under consideration.

CASE DECISIONS: Comments on pending case decisions at Board meetings are accepted only when the staff initially presents the pending case decision to the Board for final action. At that time the Board will allow up to 5 minutes for the applicant/owner to make his complete presentation on the pending decision, unless the applicant/owner objects to specific conditions of this permit. In that case, the applicant/owner will be allowed up to 15 minutes to make his complete presentation. The Board will then, in accordance with § 2.2-4021, allow others who participated in the prior proceeding (i.e., those who attended the public hearing or commented during the public comment period) up to 3 minutes to exercise their right to respond to the summary of the prior proceeding presented to the Board. No public comment is allowed on case decisions when a **FORMAL HEARING** is being held.

POOLING MINUTES: Those persons who participated in the prior proceeding and attend the Board meeting may pool their minutes to allow for a single presentation to the Board that does not exceed the time limitation of 3 minutes times the number of persons pooling minutes or 15 minutes, whichever is less.

NEW INFORMATION will not be accepted at the meeting. The Board expects comments and information on a regulatory action or pending case decision to be submitted during the established public comment periods. However, the Board recognizes that in rare instances new information may become available after the close of the public comment period. To provide for consideration of and ensure the appropriate review of this new information, persons who participated during the prior public comment period shall submit the new information to the Department of Environmental Quality (Department) staff contact listed below at least 10 days prior to the Board meeting. The Board's decision will be based on the Department-developed official file and discussions at the Board meeting. For a regulatory action should the Board or Department decide that the new information was not reasonably available during the prior public comment period, is significant to the Board's decision and should be included in the official file,

an additional public comment period may be announced by the Department in order for all interested persons to have an opportunity to participate.

PUBLIC FORUM: The Board schedules a public forum at each regular meeting to provide an opportunity for citizens to address the Board on matters other than pending regulatory actions or pending case decisions. Anyone wishing to speak to the Board during this time should indicate their desire on the sign-in cards/sheet and limit their presentation to not exceed 3 minutes.

The Board reserves the right to alter the time limitations set forth in this policy without notice and to ensure comments presented at the meeting conform to this policy.

Department of Environmental Quality Staff Contact: Cindy M. Berndt, Director, Regulatory Affairs, Department of Environmental Quality, 629 East Main Street, P.O. Box 1105, Richmond, Virginia 23218, phone (804) 698-4378; fax (804) 698-4346; e-mail: cmberndt@deq.virginia.gov.

VPDES Permit No. VA0091821 Craigsville STP – Augusta County: The purpose of this agenda item is to determine the appropriate action regarding the issuance of Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0091821.

Background: The Town of Craigsville has applied for issuance of a VPDES Permit to authorize the discharge of treated wastewater from a new sewage treatment facility serving the Town and the Augusta Correctional Center. The proposed design flow will be 0.435 MGD, discharging to Smith Creek. The existing sewage treatment facility serving the Town and the Correctional Center has a design capacity of 0.25 MGD, and treated wastewater is currently land applied on 53.3 acres of agricultural land owned by the Town. The public notice for the proposed permit issuance was published in the Daily News Leader on January 27 and February 3, 2008. During the public comment period for this draft permit, the agency received 15 letters, phone calls, and e-mails from private citizens objecting to the draft permit. Of these, there were four requests for a public hearing. On February 19, 2008, a public meeting was held at the Town Hall in Craigsville to provide information, answer questions and listen to concerns. Seventeen members of the community were present at the meeting, as well as Town of Craigsville representatives, including five members of the Town Council and the town clerk. Representatives from the Virginia Department of Corrections, Central Shenandoah Planning District Commission, and R. Stuart Royer & Associates, Inc. were also present. Following this meeting, the decision was made to proceed with a public hearing.

Public Hearing: A public hearing was held on May 6, 2008. Six citizens were present at the hearing, as well as Town of Craigsville representatives, including eight members of the Town Council. Representatives from the Virginia Department of Corrections and R. Stuart Royer & Associates, Inc. were also present. Mr. Shelton Miles III served as the hearing officer. Six citizens provided oral comments, all opposed to the draft permit. The hearing record comment period closed on May 21, 2008. No additional comments were received following the public hearing.

Summary of Public Comments and Agency Response to Comments: These comments were acknowledged by DEQ staff during the hearing. DEQ staff's responses to these comments are provided below.

1. Public Comment: Recreational uses of downstream waters will be negatively impacted by the proposed discharge.

DEQ Response: According to the Water Quality Standards regulation, “all State waters ... are designated for the following uses: recreational uses, e.g., swimming and boating; the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; wildlife; and the production of edible and marketable natural resources, e.g., fish and shellfish.” The Water Quality Standards regulation further establishes an in-stream level of E. coli bacteria at a geometric mean of ≤ 126 colony forming units per 100 mL as the level that will protect primary contact recreational uses, defined as “any water-based form of recreation, the practice of which has a high probability for total body immersion or ingestion of water” (e.g., swimming, water skiing, canoeing, kayaking, etc.). This in-stream concentration has been imposed in the draft permit as the effluent limit since the Town is proposing to utilize ultraviolet irradiation as the disinfection method. (Monitoring for E. coli is not required if the facility utilizes chlorination for disinfection because chlorine has been demonstrated to be consistently effective in reducing E. coli concentrations to less than 126 cfu/100 mL.) In addition, the facility will be using very advanced wastewater treatment technology which will remove pollutants to very low levels, producing a clear, nearly odorless discharge.

2. Public Comment: During the summer the majority of flow in Smith Creek and Little Calfpasture River will be treated effluent.

DEQ Response: The low ratio of stream flow to effluent flow during critical flow periods was considered in the drafting of this permit. This fact, in conjunction with maintaining compliance with antidegradation requirements, resulted in the very stringent effluent limitations that have been imposed in the draft permit. The proposed facility will be using very advanced wastewater treatment technology which will remove pollutants to very low levels, producing a clear, nearly odorless discharge.

3. Public Comment: Craigsville may not be able to afford to operate the facility properly.

DEQ Response: Among other things, the proposed permit requires the Town of Craigsville to meet certain effluent limitations and to operate the facility in accordance with an Operations & Maintenance (O&M) Manual that will be developed for the facility and approved by DEQ staff. Once approved, the O&M Manual becomes an enforceable part of the permit. Facilities that experience noncompliance with their VPDES permits are encouraged by DEQ staff to promptly remedy the permit noncompliance. Persistent or serious instances of noncompliance typically warrant enforcement action. DEQ encourages public participation not only in the permitting process, but also in the compliance and enforcement process, in order to most effectively manage the discharges from the facilities we regulate. The goal of our compliance and enforcement actions is to provide serious disincentives for noncompliance and to encourage a prompt return to full permit compliance.

4. Public Comment: A properly designed and operated spray irrigation system is better than a direct discharge to Smith Creek.

DEQ Response: The Town of Craigsville has evaluated the option of upgrading their spray irrigation system to bring it into compliance with current regulatory guidelines, but has elected to submit an application for a VPDES permit that does not include the use of spray irrigation. There is no prohibition in Virginia law or regulations against anyone applying for a wastewater discharge permit. If a permit application is submitted and the proposal would be in compliance with local zoning ordinances, then DEQ has a legal obligation to prepare a draft permit that would be protective of water quality. In this case, the draft permit requires that the facility use very advanced wastewater treatment technology which will remove pollutants to very low levels, producing a clear, nearly odorless discharge.

5. Public Comment: The proposed location of the new STP is subject to flooding by Smith Creek.

DEQ Response: The proposed permit issuance does not specify where the treatment plant will be built, only where the outfall is to be located; however, the construction of this facility will be required to comply with all the relevant laws and regulations administered by DEQ. The Sewage Collection and Treatment Regulations (9 VAC 25-790) are very prescriptive regarding the siting and design of the wastewater treatment facilities, and DEQ will ensure that the proposed facility complies with these regulations. According to these regulations, the treatment works site shall be located to avoid flooding. The regulations specify that, "All mechanical and electrical equipment that could be damaged or inactivated by contact with or submergence in water (motors, control equipment, blowers, switch-gear, bearings, etc.) shall be physically located above the 100-year level or otherwise protected against the 100-year flood/wave action damage. All components of the treatment works shall be located above or protected against the 25-year flood/wave action level and remain fully operational. Consideration should be given to designing the treatment works in such a way as to facilitate the removal of vital components during more extreme flood events."

6. Public Comment: The Department of Corrections is not playing a large enough role in addressing the wastewater treatment issues.

DEQ Response: Augusta Correctional Center contributes 56% of the wastewater flow to the treatment facility, and the State of Virginia has committed to funding 56% of the upgraded treatment facility project. The State will also be paying monthly service fees for use of the wastewater treatment facility. The Town of Craigsville is the entity that applied for the proposed permit; therefore, the Town will be ultimately responsible for permit compliance.

7. Public Comment: Anything operated by people will occasionally fail, in this case causing serious environmental impacts.

DEQ Response: There is a certain level of risk associated with almost every activity, and this is no different for the operation of a wastewater treatment facility. The design of the upgraded treatment facility currently includes both cloth media filtration and membrane filtration, which will not only provide the treatment necessary to meet the very stringent permit limits under routine operations, but will also serve as safety barriers to provide a high-quality discharge, even under conditions when the conventional treatment facilities might have difficulty doing so.

8. Public Comment: The river quality has declined over the past 50 years for unknown reasons, and this proposal would exacerbate the problem.

DEQ Response: The Little Calfpasture River, from its headwaters downstream to its confluence with Smith Creek, is included on the EPA 303(d) impaired waters list, due to elevated bacteria concentrations. Potential sources of the impairment have been identified as non-point source runoff and wildlife. A Total Maximum Daily Load (TMDL) will be developed to definitively identify the sources and to address the impairment. There is currently no impairment indicated at the confluence of Smith Creek and Little Calfpasture River. The proposed permit includes an E. coli bacteria limit to ensure that the discharge is in compliance with the E. coli Water Quality Standard. The facility could discharge at its design flow and at the E. coli permit limit, and still be in compliance with the E. coli Water Quality Standard. In practice, we have found that it is much more likely that the discharge will consistently have an E. coli concentration far below the limit. The proposed permit has been drafted such that all other Water Quality Standards are also met; therefore, the discharge should not contribute to a decline in the quality of the river. In fact, the facility will be using very advanced wastewater treatment

technology which will remove pollutants to very low levels, producing a clear, nearly odorless discharge.

9. Public Comment: State laws and regulations change so frequently that the new facility may need to be upgraded again soon after it is built.

DEQ Response: We are not aware of any new or pending laws or regulations that would require additional treatment to be added at this time. Since this permit would be issued for a 5-year term, upgrades would not normally be required for at least that long, and a compliance schedule is usually provided when a permit is reissued that requires additional treatment. That said, the General Assembly may pass laws, and regulations may be developed from those laws, that would require the new treatment facility to be upgraded again soon after it is built; however, this situation would not be unique to the Town of Craigsville, and it is rare that such new requirements are imposed prior to a permit's reissuance. Many of the additional comments received during the public hearing dealt with the same issues acknowledged during the hearing presentation by DEQ staff, and discussed above.

Presented below is a summary of the additional comments received at the public hearing and DEQ staff's responses.

1. Public Comment: The facility cannot remove everything from the wastewater; therefore, certain drugs and hard-to-kill pathogens such as viruses will pass through the facility and will be discharged into Smith Creek.

DEQ Response: This issue is currently being researched by EPA and our Central Office staff. At this point, there have been no conclusions reached regarding whether any health risks are posed by these substances, nor have any regulations or guidance been developed regarding the control of these substances.

2. Public Comment: In order to make decisions regarding the recreational use of the Little Calfpasture River, downstream riparian landowners should be notified by the Town of Craigsville no later than the day after a permit limit is exceeded or another problem is experienced at the facility.

DEQ Response: The draft permit requires the Town to notify DEQ of certain events. This notification is to be made immediately, but in no case later than 24 hours after discovery of the event. In most cases, the immediate notification must be followed by the submission of a written report detailing the event within five days of discovery of the event. The draft permit defines those events as follows:

a. Unauthorized Discharges

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into State waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. 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.

b. Unusual or Extraordinary Discharges

Any unusual or extraordinary discharge including a bypass or upset that occurs from a treatment works and the discharge enters or could be expected to enter State waters. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

c. Noncompliance

Any noncompliance which may adversely affect State waters or may endanger public health.

State law requires DEQ to notify the chief administrative officer of any potentially affected local government immediately upon determining that there has been a violation that poses an imminent threat to the health, safety or welfare of the public; however, there are currently no laws or regulations that require either DEQ or the permittee to notify downstream riparian landowners of any of the events described above. All information provided by the permittee regarding the notifications required by the permit is available for the public to review at the DEQ – Valley Regional Office.

In summary, the staff believes that the proposed permit is written in full compliance with all applicable State and Federal regulations, is protective of water quality, and will result in no detrimental effects to the environment.

Recommendation

The staff recommends that the Board authorize the issuance of VPDES Permit No. VA0091821 as drafted.

VWP Permit No. 07-2334; Dominion Virginia Power – Virginia City Hybrid Energy Center

Project; Wise County: The Virginia City Hybrid Energy Center Project is a proposed 585-megawatt coal-fired electric generation facility and an associated Solid Waste Management Facility (i.e. landfill) in Wise County. On October 19, 2007, Dominion Virginia Power submitted a Joint Permit application for the issuance of a VWP permit for the proposed impacts associated with the Virginia City Hybrid Energy Center Project. The impacts from the site are associated with the construction of the Solid Waste Management Facility (i.e. landfill). The landfill site is located in drainageway known as Curley Hollow, which is adjacent to the proposed power plant location. The site is approximately 378 acres, and is part of a larger parcel of land, about 1,700 acres in size, currently owned or under option by Dominion. The landfill will utilize the entire area of Curley Hollow, and will require the placement of fill within approximately 3880 linear feet of stream channel and within 0.42 acres of emergent wetland.

In order to provide compensation for those losses, the applicant has proposed to:

- 1) Restore and preserve approximately 1,580 linear feet of Meade Creek using a design that mimics natural stream channel pattern and profile;
- 2) Enhance and preserve at least 2.0 acres of emergent wetland in the floodplain area adjacent to Meade Creek, and;
- 3) Preserve the entire watershed along 6,100 feet of intermittent stream channel in Maize Hollow.

This combination of creation, restoration and preservation provide sufficient mitigation credits under current DEQ guidelines to provide adequate compensation for the unavoidable losses, and the implementation of the mitigation plan is anticipated to result in no net loss of wetland or stream function.

Public Notice and Public Hearing:

Public Notice of the proposed draft permit and notice of the proposed public hearing appeared in the following publications:

<u>Publication</u>	<u>Location</u>	<u>Date of Publication</u>
Bristol Herald Courier	Bristol, TN-VA	April 17, 2008

Clinch Valley Times	St. Paul, VA	April 24, 2008
The Coalfield Progress	Wise, VA	April 18, 2008
Kingsport Times News	Kingsport, TN	April 17, 2008

A public hearing was held in St. Paul, Virginia on May 29, 2008. The hearing was held in the St. Paul High School auditorium, which is approximately 2 miles from the project site. An informational briefing and short question and answer session preceded the hearing. State Water Control Board Chairman W. Sheldon Miles, III served as the hearing officer. Approximately forty-two people attended the public hearing. Seventeen of the citizens in attendance elected to provide oral comments on the proposed permit as well as a representative of the company, and two local elected officials.

Summary of Significant Oral Comments Presented at the Hearing:

The two elected officials as well as three of the seventeen citizens who spoke at the hearing offered statements in support of the proposal. The other fourteen speakers offered comments and suggestions in opposition.

Many of the comments received at the hearing focused upon the placement of the ash and its potential to leach contaminants into the surface water and ground water. The comments also expressed concern that the landfill will be developed in an area underlain by mine voids, thereby presenting a potential for a subsidence failure which would breach the liner system and result in a release to the environment.

Several speakers expressed concern that the loss of aquatic resources or the potential release of pollutants from the site would have a negative impact on the Clinch River, its unique biodiversity and its population of threatened and endangered species.

Several comments also questioned the adequacy and success of stream and wetland restoration, or questioned the process of restoring previously affected streams in exchange for eliminating other natural streams.

Several speakers requested that the agency assess the potential cumulative impacts in the watershed which would address other potential pollutant sources such as non-point, air deposition, coal mining, etc.

Others questioned how the permit could be issued in opposition to regulations which prohibit the placement of industrial waste within 100 feet of a stream.

Summary of Written Comments:

The comment period for the proposed permit action began on April 17, 2008, and extended until June 13, 2008. The Southwest Regional Office received written comments from twenty-two people during the comment period. Of these, eleven expressed support for the permit, citing that the proposed compensation plan meets the current regulatory requirements. The other eleven written comments were opposed to the current permit proposal.

Most (7 of 11) of the citizens which submitted written comments in opposition to the proposal all expressed the following 3 concerns which were parroted from suggested comments from a local conservation group:

- All commented that the loss of 0.42 acres of wetland and 3880 liner feet of stream will have a negative impact to the Clinch River-Copper Creek Stream Conservation Unit which is habitat for approximately 50 rare and endangered species;
- They expressed concern about the effectiveness of the proposed wetland mitigation, and requested that the permit implement a long term monitoring program to ensure that compensatory wetlands and stream channel work proposed in the permit is carried out effectively, and;
- They were concerned about the quantity of water to be removed from the Clinch River by the power plant from the existing municipal water systems which have agreed to serve the plant.

(The applicant indicates that the facility will use approximately one million gallons per day from the municipal water systems.)

Of the other four written comments we received, two were from citizens. The others were from The Nature Conservancy office in Southwest Virginia and the Environmental Integrity Project in Washington DC. The citizen comments were general in nature and did not present specific water quality based objections to the permit, or presented objections outside the scope of this permit action.

The Environmental Integrity Project presented extensive comments regarding the ash and its disposal, and the Nature Conservancy offered comments and suggestions regarding the timing and implementation of the mitigation plan.

The written comments are addressed specifically in Item V below.

Summary of Comments and DEQ Staff Response:

Staff received many comments on the proposed permit action and the following summary has combined or paraphrased many of them where it is possible. Attached is the summary of significant comments along with staff's response. The following is not all inclusive of the comments received, but summarizes the major issues raised. The responses were prepared with regulatory, technical, and historical perspectives.

1. There were numerous comments both written and oral regarding the potential chemical characteristics of the waste ash, and its potential to contribute pollutants to the surface and ground water. There were also many comments regarding the potential instability of the underlying previously mined strata and the potential for subsidence to create a breach in the liner system, thereby contaminating surface and ground waters.

DEQ Response: The criteria for assessing the appropriateness of the site, and its potential stability, are not components of the VWP regulations, but rather are issues which will be addressed under Solid Waste Management regulations during the permitting process for the landfill. Similarly, the waste characterization and the evaluation of the proposed liner system, leachate collection system as well as other aspects of the design, construction, operation and closure of the landfill are components of the solid waste management permit, and will be evaluated under separate regulations. The solid waste regulations will require groundwater monitoring to confirm the integrity of the landfill cell.

Because the fill material which is proposed to be placed within the wetlands and waterways will be native material produced in the initial grading, and the foundation of the fill will be hydrologically isolated from the waste by the liner system, the staff has determined that the plans provide a reasonable assurance that the activity will protect in-stream beneficial uses and will not violate applicable water quality standards.

2. Many comments questioned the potential for impact to the Clinch River and its sensitive populations of threatened and endangered species.

DEQ Response: Curley Hollow, Meade Creek and Maize Hollow are all headwater streams in the Clinch River watershed. The focus of this permit action is limited to the evaluation of the loss of the Curley Hollow waterway, the provisions taken to minimize impact to the aquatic community, and the measures taken to provide compensation for the unavoidable loss.

Both Curley Hollow and Meade Creek have been impaired by previous land disturbing activity which pre-dates environmental regulation. The current channel of Meade Creek is unstable and its condition is aggravated by the uncontrolled access to grazing livestock. During the construction of the facility and the construction of the restoration site the permittee must adhere to strict erosion and sediment control practices. The construction work for the restoration of Meade Creek will be completed and stabilized prior to directing flow into the new channel. Both the Meade Creek restoration site and the Maize Hollow preservation site will permanently

preserved and future land disturbing activity will be prohibited. Livestock will also be permanently excluded from the restoration site as part of this project. Therefore, the potential off site impacts should be minimized.

3. Many comments questioned the effectiveness of the proposed wetland mitigation and cited studies which purport that compensatory wetlands often end up being smaller than was stipulated in the permit or have overall low success rates. The comments also recommend that the DEQ require a long term monitoring program to ensure that compensatory wetlands and stream channel work proposed in the permit is carried out effectively.

DEQ Response: The compensation ratios applied to the site adhere to the statewide DEQ recommendations for compensation. The DEQ staff has confirmed the field conditions and assumptions utilized in the Unified Stream Model, and concur with the results of the model and the appropriateness of the proposal. However, in order to ensure that the compensation is successful, fully offsets the loss and address this public comment, the staff proposes to modify the proposed permit conditions to increase the success monitoring period from five years to the entire 15 year life of the permit.

4. Several comments expressed concern that the increased withdrawal of water from the Clinch River will have a detrimental effect upon the river and its aquatic community.

DEQ Response: Although the proposed facility is estimated to require up to one million gallons of water per day, the water will be obtained from the Wise County Public Service Authority through an existing water intake which serves the Wise County Water Treatment Plant. The original 401 certification issued by the State Water Control Board in 1982 authorizes withdrawals up to 3.75 MGD. The water treatment plant currently has adequate excess unused capacity at the plant to meet the anticipated demand. The Wise County PSA does not anticipate that the additional withdrawal necessary to accommodate the power plant will exceed the limitations imposed by the current 401 certification. Dominion is evaluating options to recycle and reuse stormwater and process waters to further reduce the need for potable water. Therefore, the original certification remains valid, and withdrawal rates equal to or less than the current level cited in the original certification should have no adverse impact to the beneficial uses of the stream.

5. Several speakers requested that the agency assess the potential cumulative impacts in the watershed which would address other potential pollutant sources such as non-point, air deposition, coal mining, etc.

DEQ Response: Issues regarding secondary impacts of the power plant operation, or other environmental affects which are regulated by other regulations or agencies are not germane to the VWP permit action.

6. Other comments questioned how the permit could be issued in opposition to regulations which prohibit the placement of industrial waste within 100 feet of a stream.

DEQ Response: Although Section 9 VAC 20-80-270.A.4.a of the solid waste management regulation states that “no new industrial waste landfillshall extend closer than 100 feet of any surface water body” DEQ considers the issuance of a VWP permit for the activity as satisfying this requirement.

7. The Nature Conservancy offered the following specific comments regarding the mitigation plan:

a. TNC noted that the permit allows up to 180 days to initiate mitigation activities after an initial stream or wetland disturbance occurs; and suggested that required stream and wetland mitigation projects should be completed prior to Dominion’s construction activities so there is no temporal loss of overall stream or wetland function.

DEQ Response: Standard VWP permit conditions provide the flexibility to allow a 180 day period between permitted impacts and the proposed initiation of mitigation. Because many of the activities planned in the mitigation (i.e. planting of vegetation) are restricted to certain seasons, the 180 time frame provides the required flexibility in timing of the required work. Therefore, DEQ staff does not recommend the suggested change.

b. TNC also recommends that the DEQ permit require the use of native species and explicitly restrict the use of any non-native, invasive species for all re-vegetation activities associated with compensatory mitigation.

DEQ Response: Part I.G.6 of the permit states: "Vegetation shall be native species common to the area and shall be suitable for growth in local wetland and/or riparian conditions." The staff contends that this language meets the TNC recommendations and no further modification is necessary.

c. TNC recommends that the applicant provide evidence that deed restrictions are enforceable and have supremacy in the chain of title associated with the lands and waters to be restored and preserved. Given that there may be 3rd party mineral, oil, and/or gas interests, which have been divided from the surface ownership in the mitigation areas, the TNC suggests that separate and legally binding written agreements with all sub-surface owners be executed and approved by Virginia DEQ to ensure that compensatory mitigation sites will not be disturbed by future 3rd party mineral or gas development.

DEQ Response: The current proposal before DEQ indicates that Dominion owns all surface and subsurface rights in the area around Meade Creek where the wetland and stream restoration work will be performed and in the preservation area of Maize hollow. Therefore, Dominion has indicated that there will be no future mineral or gas development in those areas. The company will likely be required to grant the gas company access to their existing wells at the upper end of Maize Hollow, but they will not be allowed to develop any additional wells within the preservation area. The permit will require that the specific deed restrictions be approved by DEQ, and that they be filed on the deeds at the courthouse, before the impact to Curley Hollow is authorized.

d. TNC further requests that DEQ explore options for engineering solutions to this acid seepage rather than simply piping this seepage under the proposed Solid Waste Management Facility and releasing it into the surface stream.

DEQ Response: The primary source of acid mine drainage affecting the Curley Hollow stream has historically been the underground mine discharge which is pumped into a treatment system at the head of the hollow. This source is proposed to be eliminated when the discharge is redirected into an adjacent drainageway. The remaining groundwater sources in Curley hollow will be limited to seeps associated with the coal seams. These sources are small volume and are not anticipated to produce pollutant loads which would have an adverse impact to the downstream waters. However, the solid waste management permit will require groundwater monitoring as well as monitoring of the underdrains from the fill. Any water quality issues which are detected by the monitoring plans will be addressed at that time.

8. The Environmental Integrity Project submitted extensive comments regarding the coal combustion waste (ash) and its potential to leach pollutants into the environment. They also provided extensive comments regarding the selection of the Curley hollow site, the alternatives considered, and the potential impact to wetlands. The following is a summary of their comments:

a. The EIP contends that the coal combustion waste contains many potentially toxic chemicals and that neither the application nor the permit contains sufficient information about the characteristics of the waste or the potential for contamination of the water resources. They

further state that the VWP permit does not consider the proposed fuels used at the plant and its potential affect upon the waste generated.

DEQ Response: The constituents of the waste material proposed to be placed within the land fill are not considered a factor in the VWP permit process. The waste will not be placed within wetlands and waterways. Furthermore, the waste material will be regulated by the solid waste management regulation under the provisions of another permit. The evaluation of the constituents of the waste, the evaluation of the appropriateness of the site, the design of the liner, and the design of the leachate collection and treatment systems are not regulated by the VWP regulations, and are not germane to the VWP permit action. However, all will be addressed in other DEQ permit actions.

b. The EIP contends that the applicant has not adequately address alternatives that would avoid having an impact to wetlands and waterways.

DEQ Response: The DEQ staff has reviewed the alternatives analysis information contained in the application and does not disagree with Dominion's determination that the Curley Hollow site is the least environmentally damaging alternative of the sites studied. Although, there will be an impact to waters, the wetlands and waterways which will be affected by this project are of poor quality, and have low biological diversity and integrity. The use of this single hollow design for the refuse fill minimizes the amount of disturbed acreage necessary for haulage ways and other support areas, and the implementation of the proposed mitigation plan will result in "no net loss" of aquatic resources in accordance with the current DEQ regulations and guidelines.

Comments were also received in support of the draft permit but we have not detailed them since there is little reason for staff response.

Proposed Changes in the Draft Permit

The initial draft permit has been changed to incorporate increased success monitoring.

Staff Comments

Staff will recommend the draft permit be issued with the proposed modifications as listed above.

Virginia Water Protection (VWP) Individual Permit Town of Warrenton Recreation Center, Joint Permit Application (JPA) Number 06-0553, Fauquier County: The applicant, the Town of Warrenton, submitted a JPA for a VWP Permit for the proposed activities, which was received by the Virginia Department of Environmental Quality (DEQ) on March 10, 2006. The Town proposes to construct an approximately 4-acre pond for the purpose of recreation, irrigation and stormwater management as part of the Town of Warrenton Recreation Center, which includes athletic fields, an aquatic center and associated infrastructure on an approximately 65 acre parcel. The project site is located along the north side of Lee Highway (U.S. Route 211), approximately 0.55 miles west of its intersection with West Shirley Avenue (U.S. Route 17) in Fauquier County. The upland areas of the project site that contain the athletic fields and the aquatic center (and associated infrastructure) have already been constructed. The construction of the approximately 4 acre pond will result in the permanent impact of 0.10 acre (607 linear feet) of perennial stream channel. The stream channel is a tributary to Cemetery Run, which is a tributary to Great Run, located within the Rappahannock River watershed. The project also includes the installation and operation of a water withdrawal from the proposed pond to irrigate athletic fields. Compensation is proposed to be provided through the off-site stream channel restoration and enhancement along 1,020 linear feet of a perennial tributary to Cemetery Run, the preservation of 230 linear feet of intermittent stream channel, and the reforestation of 5.21 acres of riparian buffer along both stream channels (100 feet per side). The stream channel compensation site is located approximately 2,500 linear feet downstream of the impacts. The

public notice was published in the Fauquier Times Democrat on January 16, 2008 with the 30-day public comment period ending on February 15, 2008. DEQ received four comments, three from private citizens and one from a non-profit organization (Citizens for Fauquier County). Of the four comments received, three requested the denial of the VWP individual permit, but none requested a public hearing. However, at a March 10, 2008, meeting DEQ convened for the citizens who provided comments, two of the four citizens that attended (Ms. Mimi Moore of Citizens for Fauquier County and Mr. David van Roijen) requested a public hearing. The Regional Director authorized staff to convene a public hearing regarding the proposed permit issuance on March 12, 2008. The public hearing notice was published on April 2, 2008 in the Fauquier Times Democrat. All citizens that responded to the original public notice were sent written notification of the public hearing and a copy of the public hearing notice. Notification of the public hearing and copies of the public notice were also sent to the locality. The public hearing was held on May 8, 2008, from 7:00 p.m. to 9:00 p.m. in the Auditorium of Taylor Middle School in the Town of Warrenton. Ms. Komal Jain serviced as the Hearing Officer. An informal briefing session was held prior to the hearing from 6:00 p.m. to 7:00 p.m. in the same location. Seven oral comments were provided at the public hearing, six from private citizens and one from a representative for a non-profit organization (Citizens for Fauquier County). The individual representing a non-profit organization also provided a transcript of her oral comments to staff during the hearing. The public comment period for the hearing was from April 3, 2008 through May 23, 2008. During this timeframe, in addition to the seven oral comments received during the public hearing, staff received three requests for information and two written comments from private citizens who also spoke at the public hearing. The U.S. Army Corps of Engineers (USACE) Norfolk District denied the applicant's request for an USACE individual permit for the proposed project. The denial by the Norfolk District is based upon their determination that the applicant's proposal was not the least environmentally damaging practicable alternative and therefore, they concluded that the project did not comply with the Section 404(b)(1) guidelines. The applicant appealed the denial to the USACE North Atlantic Division, which oversees the Norfolk District. The North Atlantic Division met with the applicant on March 26, 2008, at the project site. To date, North Atlantic Division has not made a decision on the appeal. The comments received during the comment periods for both draft permit and the public hearing contained similar concerns regarding the following:

- Reduced water quality due to the stormwater management function of the pond and runoff from the athletic fields.
- Insufficient avoidance and minimization of the proposed impacts.
- Inadequate evaluation of water supply alternatives for irrigation.
- Reduced hydrology downstream of the project site due to the in-line pond and irrigation activities.
- The proposed flow amount to by-pass the pond is insufficient.
- Data utilized in water budget is insufficient.
- Insufficient compensation provided for the proposed impacts.
- Unrealized recreational use of the pond.
- Concerns of recreational activities in a pond also serving as a stormwater management facility.
- The project should be reviewed at the watershed level.
- The proposed project did not include environmental planning.
- Concern that construction of the pond will impact downstream landowners.
- Concern of lack of government oversight.
- Concern about historical resources on the project site.

Staff included the following permit conditions in the draft VWP individual permit to address citizen concerns:

- Part I.G.2. The permittee shall maintain the hydrology downstream of the pond during the initial filling of the pond following construction by allowing, at a minimum, thirty percent of the estimated mean annual flow to be by-passed.
- Part I.G.3. The permittee shall submit a final pond habitat design plan to DEQ for review and approval prior to construction of the pond. The final plan shall also be submitted to DGIF for their review.
- Part I.G.4. The permittee shall submit to DEQ a water quality monitoring plan prior to construction of the pond.
- Part I.G.5. The permittee shall plant a vegetative buffer around the pond in accordance with the “Conceptual Pond Buffer Plan” dated April 18, 2008 and received April 24, 2008 or the most recent DEQ approved plan.
- Part I.G.6. The permittee shall submit the final design of the minimum in-stream flow by-pass structure and specifications to DEQ prior to initiation of surface water withdrawal activities.
- Part I.H.1. The application of fertilizers, herbicides, insecticides, fungicides, and other pesticides shall be prohibited within the buffer zone, which shall be a minimum of 20 feet from the boundary of the pond and perennial stream channel, unless otherwise approved by DEQ for the control of invasive species.
- Part I.H.2. The permittee shall submit an integrated management plan that discusses the management of the athletic fields. The plan shall include, at a minimum, frequency and amount of the application of fertilizers, herbicides, insecticides, fungicides, and other pesticides and a map depicting the buffer zone around the pond and perennial stream channel. The plan shall be submitted to DEQ prior to construction of the pond.
- Part I.I.2. The irrigation intake pipes shall be set at a water elevation that is two (2) inches higher than 477.00 feet above mean sea level.
- Part I.I.3. No water withdrawal activities shall occur when the water elevation of the pond is below 477.00 feet above mean sea level.

A summary of changes to the draft permit for clarification are as follows:

- Revised Part I.C.4. to clarify that 30 percent of the mean annual flow must be by-passed when the elevation of the pond is above 477.00 feet above mean sea level.
- Revised Part I.C.8.a. to correct the 30 percent of the mean annual flow due to an error discovered in the initial calculation, to clarify the purpose of the flow by-pass and to clarify that the flow must be by-passed when the water elevation of the pond is above 477.00 feet above mean sea level.
- Revised Part I.C.8.c. to specify the flow velocity through the screen that the irrigation intakes shall not exceed.
- Revised heading of Part I.G.
- Revised Part I.I.5.f. to clarify that the Emergency Drought Management Plan shall address management of irrigation during times of drought.
- Revised Part I.I.5.ii. to clarify that information desired is how minimum downstream flows will be preserved.
- Revised Part I.K.1. to clarify the perennial stream proposed for compensation is a tributary to Cemetery Run.

It is staff’s view that the concerns raised in the responses received during the two public comment periods have been adequately addressed by the modifications to the draft VWP individual permit. Additionally, the proposed activity is consistent with the provisions of the

State Water Control Law and VWP Permit Program regulations, policy and guidance. Therefore, staff recommends that the State Water Control Board issue the permit.

9VAC25-740-105 of the Water Reclamation and Reuse Regulation: At the July 2008 meeting of the Board, DEQ staff of the Water Division, Office of Land Application Programs will ask the Board to approve the following recommendations regarding future action on 9VAC25-740-105 of the Water Reclamation and Reuse Regulation. On December 4, 2007, the Board voted to adopt the Water Reclamation and Reuse Regulation but deferred action on 9VAC25-740-105 and directed DEQ staff to: (i) reconvene the Technical Advisory Committee (TAC) that assisted the agency with the development of the regulation to discuss 9VAC25-740-105; and (ii) return to the Board by no later than its 2008 summer session with recommendations for a subsequent Board action on only this section. The draft Water Reclamation and Reuse Regulation that was advertised for public comment contained Department of Conservation and Recreation (DCR) recommendations concerning the reduced waste load discharge of total nitrogen (N) and total phosphorus (P) a wastewater treatment facility with the General VPDES Watershed Permit (9VAC25-820) could report. These recommendations concerning assumed N and P losses to state waters from irrigation reuse of reclaimed water that has not undergone biological nutrient removal (non-BNR reclaimed water), included: (i) assumed losses of 30% for total N and 20% for total P for irrigation of areas less than or equal to five acres (e.g., urban areas and residential lawns); and (ii) assumed losses of 15% for total N and 10% for total P for irrigation of areas greater than five acres. During the public comment period, the agency received many comments from the regulated and academic communities opposing the concept of accounting for such nutrient losses, for the following reasons:

- Imposing assumed nutrient losses on irrigation reuse of non-BNR reclaimed water will provide only a small nutrient load reduction compared to the reductions from wide-scale implementation of point source nutrient controls, and will act to discourage water reclamation and reuse and the associated positive benefits to the Chesapeake Bay.
- For bulk irrigation reuse (>5 acres) with non-BNR reclaimed water, application of assumed nutrient losses is not necessary given all the other measures to manage nutrients that are required in the regulation for these sites, including a nutrient management plan prepared by a nutrient management planner certified by DCR, stringent irrigation setbacks, prohibition against any runoff, and “supplemental” rates of irrigation.
- For non-bulk irrigation (≤ 5 acres) with non-BNR reclaimed water, the regulation requires management of nutrients by service area rather than by individual end users. Providers will report total volume of non-BNR reclaimed water reused for non-bulk irrigation along with concentrations of N and P in the reclaimed water, such that monthly N and P loads to the service area can be calculated.
- There is a lack of scientific data to derive actual percentages of assumed nutrient loss.
- Assumptions for nutrient loss from landscape irrigation reuse should not be drawn from nutrient efficiencies measured for non-irrigated agriculture or irrigated agriculture performed under imprecise water management plans; appropriately irrigated vegetation with reclaimed water containing soluble and readily plant available N and P should enable rapid and efficient plant assimilation of these nutrients; appropriately operated irrigation should not result in runoff from the reuse sites; and the soluble (largely non-particulate) P that occurs in reclaimed water should rapidly infiltrate into the soil where it is less likely to be transported off-site in surface runoff compared to surface applied P from a nutrient source such as animal manure.

- The NPDES permit program, in general, and the General VPDES Watershed Permit (9VAC25-820) are not designed to accommodate accounting and reporting of assumed nutrient losses from irrigation reuse with non-BNR reclaimed water.
- Any assumed nutrient losses, if quantifiable, should be equitably applied to all forms of irrigation that have the potential to contribute nutrients to surface waters and not just to irrigation reuse with reclaimed water.

Per the direction of the Board, the TAC was reconvened on January 9, 2008 to discuss and attempt to resolve the issues referenced above. At the meeting, DCR restated their concerns regarding nutrient loss from irrigation reuse, in particular from the potential misapplication of reclaimed water in residential areas and the subsequent nutrient runoff that could negatively affect the discharge of municipal separate storm sewer systems (MS4s). However, although likely to increase in the future, only a small percentage of reclaimed water (3% based on HRSD estimates) is currently used for non-bulk irrigation. In answer to the growth concern, it was noted that new wastewater treatment facilities having no nutrient allocation for their discharge will likely treat to BNR to reduce the nutrient load that they would need to offset in order to discharge, thereby eliminating this as an issue. Other TAC members emphasized that the runoff from reclaimed water would not be distinguishable from other urban sources of nutrients, such as nutrient loss from misapplication of commercial fertilizers to residential lawns. They also noted that for bulk irrigation reuse of reclaimed water, requirements for a nutrient management plan and best management practices are sufficient to prevent most nutrient losses. It was mentioned that irrigation reuse with reclaimed water will increase the nutrient use efficiency of the crops. Consequently, more nutrients will be removed by the crop than lost to leaching and should be considered a credit to offset nutrient losses from irrigation reuse. The issue of how to account for nutrient losses was also discussed. The concept of adding nutrient losses from non-point sources back to the nutrient load discharged by a wastewater treatment facility providing water for reclamation and irrigation reuse is not appropriate and is actually prohibited by the VPDES permit regulations. Such losses could be accounted for in the Chesapeake Bay Model as a nutrient non-point source, and then the nutrient inputs from this source could be addressed by adjustments to TMDLs or overall tributary strategies. This adjustment should also apply to nutrient inputs from stormwater discharges of MS4s, which the DCR representatives confirmed were currently not accounted for in the model. Conversely, it was also mentioned that nutrient credits should be given for irrigation reuse that results in improved nutrient use efficiency. The lack of available scientific data to quantify the percentages of assumed nutrient loss from irrigation reuse was identified as an issue needing further investigation. It was suggested that a study of nutrient losses from the urban and residential reuses with non-BNR reclaimed water be conducted to determine if percentages of nutrient loss are necessary, and if so, what the actual percentages would be. Possible avenues to conduct and/or sponsor such as study were mentioned, including universities, the Mid-Atlantic Water Program in EPA Region III, or one or more utilities. At the conclusion of the meeting, the TAC offered the following suggestions that most participants found acceptable to address language of the Water Reclamation and Reuse Regulation contained in 9VAC25-740-105.

- Eliminate percentages of assumed nutrient loss for bulk irrigation reuse with non-BNR reclaimed water; any such losses are already mitigated by requirements for a nutrient management plan, supplemental rates of irrigation, prohibitions against runoff, and other site management practices to reduce nutrient loss.
- Eliminate percentages of assumed nutrient loss for non-bulk irrigation reuse with non-BNR reclaimed water as there is a lack of available scientific data to support specific nutrient loss values, and there is no mechanism to account for such losses within the

General VPDES Watershed General Permit program. An alternative to this suggestion would be to include some sort of default percentages in the regulation until more information is available to adjust them upward or downward.

- Should percentages of assumed nutrient loss for non-bulk irrigation reuse with non-BNR reclaimed water continue to warrant consideration, a study should be conducted to: (a) determine if actual nutrient losses specific to this reuse are significant and, if so, (b) establish an appropriate mechanism to account for those nutrients losses. Such a study should include both a scientific component to generate and interpret data, and a policy component to consider what might be the best means to account for nutrient loss from non-bulk irrigation reuse with non-BNR reclaimed water if it is distinguishable from other non-point sources and is significant.

Based on the above, DEQ staff recommend that the Board delete 9VAC25-740-105 in its entirety; and either:

1. Establish a committee consisting of regional experts on non-point sources of water pollution, faculty from Virginia Tech and staff of DEQ and DCR to conduct a study that will:
 - a. Quantify the loss of nutrients from urban and residential irrigation reuse with non-BNR water for comparison with nutrient losses from non-bulk irrigation reuse with BNR reclaimed water. This component of the study should include a literature review and some type of field studies conducted by a reputable research institution or organization, and
 - b. Identify or develop an accounting mechanism for non-point source nutrient losses from urban and residential irrigation reuse with non-BNR reclaimed water contingent upon the results of the scientific component of the study;or, in the absence of funding for the study,
2. Direct DEQ staff to assemble, review and report on, as available, monitoring data of monthly N and P loads for urban and residential irrigation reuse of non-BNR reclaimed water to a service area submitted by permittees in accordance with subdivision 9VAC25-740-100.C.3.c(4) of the regulation. This loading rate could be compared to recommended fertilizer rates for lawn turf most common to the region to roughly determine if nutrients are being over applied by non-bulk irrigation reuse within the service area. This would indicate if the issue of nutrient loss could be of concern.

Request to Proceed to Public Hearing and Comment on Proposed Amendments to the Water Quality Standards – 9VAC25-260-275. Protection of Eastern Shore Tidal Waters for Clams and Oysters: Staff will request Board approval to proceed to Notice of Public Comment and hearing with proposed amendments to the Water Quality Standards regulation to include a new section, 9 VAC 25-260-275 that requires an analysis be conducted to determine if a wastewater management alternative other than a Virginia Pollutant Discharge Elimination System discharge to shellfish waters on the Eastern Shore would be feasible, produce less of an environmental impact, and not result in significant social and economic impacts. This requirement is initiated when applications for new or expanded VPDES discharges to Eastern Shore waters result in condemnations but are not denied pursuant to 9 VAC 25-260-270 (Shellfish buffer zones; public hearing). The purpose of the proposal is to provide additional water quality protection for clams and oysters in waters on the Eastern Shore of Virginia and to ensure that the wastewater management disposal alternative chosen for that area has less of an environmental impact than another alternative. The proposal is intended to reduce condemnations on the Eastern Shore so more waters may be protected for clam and oyster production, including aquaculture. This rulemaking began as a Governor’s initiative to support

aquaculture wherein he requested ways be identified that encourage consideration of alternatives to the discharge of wastewater for treatment facilities on the Eastern Shore. The goal was to enhance high quality waters which are especially well-suited for shellfish or aquaculture operations and to safeguard important shellfish habitat areas and the sustainability of Virginia's aquaculture industry by providing additional water quality protection for these waters on Virginia's Eastern Shore. The initiative also supports the Virginia Coastal Zone Management Program's Seaside Heritage Program which strives to protect coastal resources and ensure the growth of sustainable industries such as shellfish farming and ecotourism that depend on high water quality. A Notice of Intended Regulatory Action (NOIRA) was published in Virginia Register of Regulations on September 17, 2007 with the comment period ending November 30, 2007. A public meeting was held in Painter, VA on October 17, 2007. The Department utilized the participatory approach by forming an ad hoc advisory committee that held three public noticed meetings (March 18, April 24 and May 22, 2008) on the Eastern Shore. A summary of each of these meetings is provided at the following web address <http://www.deq.virginia.gov/wqs/rule.html#SHELL>. Generally, the committee had varying opinions on whether to include all Eastern Shore waters for this new requirement or to choose individual areas. Several members were concerned about the appearance of 'designating' waters for aquaculture when other uses apply (i.e. recreation). Concerns were raised over the costs of an alternatives analysis. The committee also discussed the timing of the alternatives analysis and how it relates to the existing regulation Section 270 (Shellfish buffer zones; public hearing) in light of the recent Captain's Cove decision. Staff attempted to craft a regulation that does not 'designate' waters for aquaculture; rather applies the requirements to the applicant of discharge permits to all Eastern Shore waters. Staff also inserted a phased approach to the alternatives analysis in an attempt to relieve costs of the analysis. Staff also developed the draft so that the requirement for conducting an alternatives analysis applies only to a proposed new or expanded discharge that would not be denied under Section 270 but would result in a shellfish condemnation. Staff believes the proposal takes a balanced approach to enhancing protection of these waters while also limiting additional regulatory burdens.

Water Quality Standards Proposed Amendments

9 VAC 25-260-275. Protection of Eastern Shore Tidal Waters for Clams and Oysters

A. This section applies to applications for individual Virginia Pollutant Discharge Elimination System (VPDES) permits authorizing new or expanded discharges to or otherwise affecting Eastern Shore tidal waters which include all tidal rivers and creeks on the Eastern Shore (Accomack and Northampton Counties) including the tidal waters within the barrier islands on the eastern seaside of the Eastern Shore (does not include Atlantic Ocean waters) and all tidal rivers and creeks on the western bayside and including the Chesapeake Bay to a point one mile offshore from any point of land on the Eastern Shore.

B. When such application proposes a new or expanded discharge that would not be denied pursuant to 9 VAC 25-260-270 but would result in shellfish water condemnation, then the application shall be amended to contain an analysis of wastewater management alternatives to the proposed discharge. An application shall be deemed incomplete until this analysis is provided to the Department.

C. For purposes of this part, condemnation shall mean a reclassification of shellfish waters by the State Department of Health to prohibited or restricted (as defined by the US Food and Drug Administration, National Shellfish Sanitation Program, Guide for the Control of Molluscan Shellfish, 2005 Revision) thereby signifying that shellfish from such waters are unfit for market.

D. The alternatives analysis shall first identify and describe the technical feasibility of each wastewater management alternative to the proposed new or expanded discharge. If the analysis

demonstrates that any of the identified alternatives are technically feasible, then the analysis shall further describe the environmental, social and economic impacts and opportunities to mitigate any adverse impacts for those alternatives.

E. If the alternatives analysis demonstrates that the proposed new or expanded discharge is the only technically feasible alternative or produces the least environmental impact of all the technically feasible alternatives, the application will be processed in accordance with 9 VAC 25-31-10 et seq. (VPDES Permit Regulation). If the analysis demonstrates that a technically feasible alternative produces less of an environmental impact than that associated with the proposed new or expanded discharge but results in significant adverse social and economic impacts to beneficial uses and to the locality and its citizens, the application shall be processed in accordance with 9 VAC 25-31-10 et seq. If the analysis demonstrates that a technically feasible alternative produces less of an environmental impact than that associated with the proposed new or expanded discharge and does not result in significant adverse social and economic impacts to beneficial uses and to the locality and its citizens, then processing of the VPDES application shall be suspended while the applicant makes a good faith effort to obtain approval from the appropriate regulatory authorities for the alternative. Processing of the application shall be resumed only if the alternative form of wastewater management is disapproved by the appropriate regulatory authorities.

Evergreen Country Club, Haymarket, VA (Prince William County) - Consent Special Order – Amendment with Civil Charge: Evergreen Country Club, Inc. (“Evergreen”) owns the Evergreen Country Club Sewage Treatment Plant (“STP”). Evergreen contracts with Environmental Systems Service, LTD. (“ESS”) to operate the STP. DEQ and Evergreen entered into a Consent Special Order on October 8, 2002 to resolve repeated violations of the STP’s permitted effluent limits. The Order required Evergreen to, among other things, replace the existing STP with a new STP within 18 months of beginning construction. Evergreen began construction on the new STP on April 10, 2005 yielding a completion date of October 10, 2006. DEQ received correspondence from ESS dated September 29, 2006 which provided a new completion date of November 15, 2006. They stated the reason for the delay was lack of adequate electrical service from the power company. DEQ staff conducted a site visit on January 31, 2007 and found that the new STP was still not online due to delays in Evergreen obtaining the necessary electrical permit from the power company. Evergreen asserted that the new STP should be online and operational by the end of February 2007. Evergreen contacted DEQ on February 20, 2007 to advise that an outdated easement required updating prior to completing the electrical work and that the plant should be up and running by March 30, 2007. Evergreen contacted DEQ again on March 23, 2007 and advised that they would not meet the March 30, 2007 deadline and that the new plant should be operational by the week of April 9, 2007. Evergreen made no contact with DEQ until DEQ requested a meeting for May 23, 2007. At this meeting, Bryan Dolieslager, General Manager of Evergreen, admitted that Evergreen had failed to maintain good communication with DEQ regarding the plant. He explained that the current delay was due to rewiring of the plant that needed completion. He estimated the new date for being online as June 1, 2007. Additionally, DEQ had conducted a review of the Evergreen file and found that Evergreen had failed to submit monthly grease trap log reports as required by the 2002 Order. Mr. Dolieslager agreed to submit this information. Evergreen submitted a letter on May 29, 2007 along with the grease trap logs detailing this information. In addition to constructing a new STP, the Order also required the submittal of a closure plan for the existing STP within 30 days of beginning construction (i.e. May 10, 2005). DEQ did not receive the closure plan until November 29, 2005. DEQ sent a proposed Amended Order to Evergreen to

resolve the forgoing violations that was signed by Evergreen on September 4, 2007. Following the signing of the Order by Evergreen, DEQ followed necessary procedures in order to present the Amended Order to the State Water Control Board at the December 4, 2007 meeting. However, prior to presentation, DEQ received communication from ESS noting that the STP was continuing to experience malfunctions leading to permit effluent violations. These violations were noted in additional NOV's sent to Evergreen. Due to this new information, DEQ determined that the Amended Order as proposed did not adequately address the problems that the STP was experiencing and that it would need to be edited to reflect the newest information received. The new Amended Order includes additional penalties for violations that occurred between August and December 2007 and also an analysis of the plant to determine how the plant as built differs from how it was designed. The Amended Order requires Evergreen to: (1) complete an assessment of the STP to determine any discrepancies between how it was designed and built; (2) submit a final CTO request; (3) complete construction of fencing; (4) complete insulation of the STP; (5) close the existing STP in compliance with the approved closure plan; and (6) increase sampling and continue to have a licensed operator onsite everyday. The costs associated with the items included in the Appendix include \$40,000.00 to pump and haul the lagoon associated with the existing STP and an additional \$250.00 a month for increased sampling. The assessment to determine the discrepancies between the designed STP and how it was built will be approximately \$3500.00. In addition, in order to complete repairs at the STP, Evergreen will be required to correct deficiencies with its collection system at a cost of \$85,000.00. Civil Charge: \$28,250.00.

Hartland Institute Of Health & Education Sewage Treatment Plant, Madison County - Consent Special Order w/ Civil Charges: Hartland Institute owns and operates a sewage treatment plant, which is a 0.025 MGD plant that is located in Madison County, Virginia and treats wastewater from an educational institute. Hartland Institute was referred to enforcement on December 6, 2006, after it had violated permit effluent limits for Biochemical Oxygen Demand (BOD), Dissolved Oxygen (DO), and E. coli in July, August and November of 2006, which may have been a result of problems with its aeration system that has since been repaired. Then, Hartland submitted incomplete DMRs in July 2006 as well as January and June 2007 which were a result of operator error. In addition, Hartland failed to submit a required update to its O&M manual. The O&M Manual update was due September 24, 2006 but was not submitted until mid-January 2007, and upon review, it was determined that the manual was incomplete. DEQ enforcement staff attempted to work with Hartland Institute to complete the update; however, although partial submissions were received, it proved very difficult to obtain the correct updates due to the difficulties of communication with the plant operator. DEQ made a site visit to the sewage treatment plant on April 2, 2007, for an announced reconnaissance inspection. At that time, the plant appeared to be in relatively good condition although the DEQ inspectors informed the operator that the lagoon curtain divider needed to be replaced as it was not working properly since it wasn't floating across the entire lagoon and apparently had not been replaced since its initial installation. DEQ personnel met with Hartland Institute on October 18, 2007, after repeated failed attempts to contact and get responses from the former plant operator. In addition, upon reviewing the Hartland file, DEQ discovered that there are no records to show how the collection system is set up and operates at Hartland nor if there is a grease trap that may cause potential problems at the plant. During the meeting, all prior violations in the past year were reviewed and DEQ suggested a number of action items for Hartland to complete to return to compliance. Since there were a number of past permit limit exceedances, DEQ requested that Hartland begin to sample more frequently in order to obtain

more data regarding plant performance. In discussions with Hartland officials, it was determined that records and log books were not being kept onsite and may not be accessible due to issues with the former operator. Hartland Institute has recently fired the previously mentioned plant operator and hired a new operator, Environmental Systems Service, Ltd., to operate the plant. A number of compliance items are reflected as a result of the current situation at the plant in order to ensure future compliance and are a part of Appendix A of the Order. During the Consent Order process, in which an evaluation of the collection system was done, two sanitary sewer overflows were found. The first was found and reported to DEQ on January 24, 2008, near a manhole where a tree root had grown through a pipe and it appeared the overflow had been going on for some time. A pump and haul contractor was called to the site, removed the overflow, unclogged the pipe and placed lime on the ground around the overflow. The second overflow was found and reported to DEQ on January 30, 2008, with an overflowing manhole near the Mansion. Again, a pump and haul contractor was called to the site, removed the overflow, unclogged the manhole and placed lime on the ground around the overflow. In response to these overflows, the Order was amended to include specific compliance actions to address these overflows, including mapping and evaluating the entire sewer collection system at Hartland Institute. DEQ NRO personnel visited the site on January 28, 2008, in order to observe the overflows. While there, DEQ also inspected the lagoon and observed that the aeration system did not seem to be working properly. Therefore, the Order was modified to include an evaluation of the adequacy of the lagoon aeration system as well. Hartland has completed a majority of the compliance items listed in Appendix A which have been confirmed in a site visit on May 12, 2008. As a result of the violations stated above, DEQ has negotiated a Consent Order with Hartland Institute, to (1) evaluate and map the current collection system and submit a report to DEQ, (2) have the collection system evaluated by a certified engineer, (3) inspect the lagoon curtain and replace if necessary, (4) provide safe and secure access to the outfall, (5) resample the BOD and provide results to DEQ, (6) begin sampling twice per month for BOD, TSS and E. coli, (7) complete Initial Demonstration of Compliance (IDC) requirements, (8) evaluate the adequacy of the aeration system and upgrade if necessary, (9) update the current O&M Manual to reflect current practices, (10) ensure that the discharge valves to the old lagoon have been locked or plugged and (11) keep all required records and logs on site for DEQ review. The injunctive relief cost is fairly significant in order to perform all of the necessary actions listed in the Appendix. Hartland has already spent approximately \$17,000 for upgrades to the plant, hiring a new operator, installing a new lagoon curtain and performing an evaluation of the collection system. It is projected that at least an additional \$10,000 will be spent for the engineering evaluation, upgrades to the aeration system and other associated costs to complete all of the compliance items listed in the Appendix. Civil Charge: \$4,500.

Town of Appomattox, Appomattox County - Consent Special Order Amendment: The facility's VPDES discharge Permit was re-issued on October 18, 2004, which contained a final copper effluent limitation of 21 µg/l. Due to low hardness present in the receiving stream, along with low pH in the Town's potable groundwater supply, the Town has been unable to consistently meet the copper effluent limit. The Town entered into a Special Order by Consent, effective December 7, 2005, which required the Town to maintain sequestering agents in the potable water supply for a period of one year. The Order contained an interim copper limit of 45 µg/l to give the Town a chance to investigate various compliance methods to meet their copper limit. The Town has been working diligently with their engineering consultants to chemically treat the potable water supply and reduce the leaching of copper from the distribution system. Numerous compliance options have been tried and rejected due to a combination of ineffectiveness, total

costs, or toxicity to the treatment plant. The proposed Amendment requires the Town to explore additional compliance options and gives a deadline of three years from the effective date of the Amendment to perform a Site-Specific Water Effect Ratio (SSWER) for the receiving stream, and contains an interim copper effluent limit of 47 µg/l. An additional option currently being explored by the Town involves the installation of a potable water supply line from Concord to the Town, with water supplied by the Campbell County Utility Service Authority (CCUSA) from a surface water source.

The Scotts Company LLC of Ohio, Lawrenceville - Consent Special Order w/Civil

Charges: Scotts owns and operates a soil amendment bagging Facility in Brunswick County, Virginia, which is subject to the General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity, Number VAR05. Permit coverage for the Facility was established under Registration Statement No. VAR051268, submitted on February 24, 2005. On August 14, 2007, in an investigative response to a citizen's complaint of red colored water flowing in Wilson Creek, Department staff observed severe impacts to the Creek as it flowed under the Route 712 bridge, 1.5 miles downstream from the Scotts Company property. At this location the Creek was red in color, with a DO measurement of 0.2 mg/l and a pH of 3.5. In addition, the Creek contained excess bacterial colonies on its substrate, no fish, a poor benthic community, and a strong odor of decaying mulch. DEQ staff traced the low pH/DO reddish discoloration upstream into Huckleberry Branch and found the source on Scotts Company property. Large quantities of mulch products commingled with stormwater had discharged at the north western edge of the Site. Just west of Outfall 001, staff observed a breach in a stormwater ditch meant to convey stormwater to a settling basin prior to discharge at outfall 001. The breach was the main discharge point for the contaminated stormwater, and was a point not designated as an authorized outfall in the Company's Permit. DEQ staff conducted upstream surveys and determined that Scotts is the sole contributor to the water quality impacts. Staff also observed that Scotts had failed to perform and record the quarterly and annual comprehensive site inspections required by the Permit and they failed to report the discharge to DEQ. On December 4, 2007, the Department issued an NOV to Scotts citing it for an unauthorized discharge and the failure to report the discharge to DEQ. The Department met with Scotts on December 18, 2007 to discuss the discharge and the NOV. Scotts quickly acted to restore the stormwater conveyance system at the Facility, and to date has spent over \$62,000 on corrective action. The Order requires Scotts to modify their SWPPP to meet Permit requirements and to implement and maintain BMPs necessary to meet water quality standards, conduct biochemical monitoring of Wilson Creek and Huckleberry Branch, and increase the frequency of inspections and effluent monitoring at the Facility. The Order converts the benchmarks in the Permit to numerical limitations and adds limitations for BOD, TSS and DO. The Order also requires that Scotts apply for an individual stormwater permit on or before June 15, 2009, if, after review of the stream monitoring data collected by both Scotts and DEQ, DEQ determines that the streams have not fully recovered. The cost of injunctive relief is expected to be \$72,000. Civil Charge: \$52,500.

Associated Naval Architects, Incorporated, Portsmouth - Consent Special Order with Civil

Charge: Associated Naval Architects, Incorporated ("ANA") is located on a 12-acre site in the city of Portsmouth, Virginia, at which it repairs small barges, landing craft and similar vessels. Vessels being repaired at the ANA facility ("facility") are mounted on one of four marine railways ("MRWs"). DEQ issued ANA Virginia Pollutant Discharge Elimination System ("VPDES") Permit #VA0087599 ("Permit") on December 1, 2003; it expires on November 30, 2008. The Permit authorizes ANA to discharge wastewater for conventional MRW operations

and process wastewater associated with vessel repair and/or maintenance from listed industrial and storm water outfalls. Among other things, the Permit requires ANA to comply with Best Management Practices (“BMPs”) detailed in the Permit and to monitor the discharges from its four permitted outfalls (Outfalls 001, 002, 003 and 004) for flow, pH, total suspended solids, dissolved copper and dissolved zinc. Monitoring results for Outfall 003 are to be submitted quarterly on Discharge Monitoring Reports (“DMRs”), which are due to DEQ on the 10th day of the month following the end of the quarter. DMRs for the other three outfalls are to be submitted annually. On September 20, 2007, and October 26, 2007, compliance staff (“staff”) conducted compliance inspections of the ANA facility. These facility inspections and a subsequent record review indicated deficiencies in compliance with Permit-required BMPs for the management of abrasive blast material (“ABM”), trash and debris, and paints, solvents and waste material. ANA was advised of its VPDES non-compliance issues in a Notice of Violation dated February 19, 2008 (“NOV”). In addition, the NOV advised ANA that it had not submitted the DMR for Outfall 003 for the 4th Quarter 2007 by the date required by the Permit (January 10, 2008). ANA responded to the report of the compliance inspections by letter dated January 8, 2008. The letter notified DEQ that ANA had reassigned responsibility for BMP compliance from corporate counsel to the vice president for production; that ANA committed to removal of ABM from the MRW carriages and the surrounding area, to implement procedures to prevent ABM from entering State waters, and to improve overall management of ABM; that a training program on container and equipment management had been implemented; and that ANA was committed to improving its housekeeping practices. In an electronic mail to DEQ on January 23, 2008, ANA acknowledged that it had failed to monitor the discharge from Outfall 003 during the 4th Quarter 2007. DEQ enforcement and compliance staff (“staff”) conducted a site visit on March 19, 2008 and met with ANA production leadership who had recently been assigned responsibility for Permit compliance. Staff observed considerable improvement in site conditions compared to the non-compliance observations noted in the February 19, 2008 NOV. Most significantly, ABM had been removed from the railway carriages and the waterfront surrounding all four MRWs. The Order would require ANA to pay a civil charge within 30 days of the effective date of the Order. ANA has addressed all Permit deficiencies noted above. To ensure continued compliance with the Permit, the Order also requires ANA to increase the monitoring frequency of discharges from Outfalls 001, 002 and 004 from annually to quarterly for one year and to submit quarterly corrective action plans to address BMP deficiencies noted during Permit-required facility inspections. The Order was executed on May 27, 2008. Civil Charge: \$28,280.

Hercules, Incorporated, Southampton County - Consent Special Order with Civil Charge:

Hercules, Incorporated (“Hercules”) owns and operates an industrial chemical manufacturing facility. VPDES Permit No. VA0003433 was issued to Hercules on April 19, 2002 authorizing discharges from outfalls 002 (waste water and non-contact cooling water), 003 (storm water), and 902 (storm water); outfalls 002 and 902 are collocated. The VPDES permit expired on April 19, 2007, was administratively extended while Hercules’ timely permit renewal application was being reviewed, and reissued on December 12, 2007 with an expiration date of December 11, 2012. The chemical-production assets in one of the process areas at the Hercules facility are owned by GEO Specialty Chemicals (“GEO”), which manufactures organic peroxides used in the rubber and plastics industries. The GEO assets are operated and maintained by Hercules. On July 16, 2007 Hercules reported to DEQ the release to the Nottoway River of tert-butyl hydroperoxide (“TBHP”) and dimethylbenzyl alcohol (“DMBA”). An estimated 640 gallons of TBHP and 1,200 gallons of DMBA had been released. TBHP is harmful to invertebrates and fish and toxic to algae and higher aquatic life. It was later determined that operator error caused

the internal failure of a heat exchanger in the GEO process area resulting in the release of the material in the heat exchanger (including TBHP and DMBA) to the pipe that conveys non-contact cooling water through the heat exchanger to a ditch that conveys non-contact cooling water from the GEO process area. That release discharged to the drainage canal that conveys non-contact cooling water, process waste water, and storm water from other parts of the Hercules facility to the Nottoway River through Outfall 002/902. DEQ responded to the spill report on July 16, 2007 and observed that Hercules had taken immediate corrective action by shutting down the GEO process and by removing from the drainage canal any free product that had not already dissolved. DEQ conducted a fish-kill investigation on July 17, 2007. Three dead fish were found in the Nottoway River; the Virginia Department of Game and Inland Fisheries reported that it had determined that, because so few fish were killed in the Nottoway River, it would not be seeking reimbursement from Hercules to replace the dead fish. On the day of the release, Hercules personnel also collected several hundred dead minnows and small fish from the drainage canal that conveys the combined flows to the Nottoway River through Outfall 002/902. On August 13, 2007 DEQ issued an NOV advising Hercules that it had violated its permit by discharging TBHP and DMBA to State waters without authorization. Hercules submitted a spill report on July 23, 2007 and responded to the NOV on August 27, 2007. The company reported that it had recovered nearly 1,000 gallons of contaminated water on the day of the release, had replaced all of the oil absorbent booms in the drainage ditch/canal system, had repaired and reinstalled the GEO process heat exchanger, had modified its standard operating procedures to prevent a recurrence of the unpermitted discharge, and had rerouted the non-contact cooling water from the GEO process heat exchanger to a containment area where it will be collected and inspected before being either reused or treated for disposal. The Order would require Hercules to pay a civil charge within 30 days of the effective date of the Order and reimburse DEQ for the cost of the fish-kill investigation (\$162.28). Hercules has addressed all Permit deficiencies noted above. To ensure continued compliance with the Permit, the Order also requires Hercules to submit a corrective action plan that fully examines the root cause of the release, describes actions to prevent future releases from the GEO process area and mitigate environmental damage in the event a release does occur, and thoroughly evaluates ways Hercules can increase ground water reuse in the GEO process area. The Order was executed on October 9, 2007. This Order was originally scheduled for presentation at the December 4, 2007 meeting of the State Water Control Board. However, the Order presentation was delayed pending the outcome of toxics concerns at the facility. These concerns were addressed during 1st quarter 2008 and the Order as executed on October 9, 2007 was recommended for presentation at the next regularly scheduled Board meeting. Civil Charge: \$12,800.

Town of Craigsville, Augusta County - Consent Special Order with Civil Charge:

Craigsville owns and operates the Facility, which serves Craigsville and the nearby Augusta County Corrections Facility (ACCF). The Permit was reissued on December 17, 2002, with an expiration date of December 16, 2012. The Facility provides primary wastewater treatment in Imhoff tanks from which the wastewater flows to three lagoons and is ultimately applied onto a 53.5 acre site. The design flow of the Facility has been rated and approved as 0.25 MGD. However, during 20 months out of a 34-month period (January 2005 through October 2007), the monthly average flows through the Facility exceeded the Facility's design flow. These excessive flows compound other operational problems which stem from the Facility's now out-moded land application design: the steep topography of the land application site limits application rate and area; the gravity flow distribution system fails to provide even, consistent wastewater application; and the karst geology underlying the land application area has precluded effective

monitoring of groundwater quality at the land application site. In the early 1990s, the development of a regional sewer system which could serve Craigsville and the surrounding area was explored. A PER was developed that indicated that a regional plant would be a cost effective remedy for the area's sewage handling problems. In reliance on its ability to connect to a new regional STP, Craigsville agreed to a Permit special condition (Part I.C.5.) which required Craigsville to cease all land application by December 16, 2006. The goal was that the reissued Permit would allow for the continued operations of the Facility until the Town connected to the (then) proposed regional STP, or until a VPDES permit could be issued for a new "local" STP. At the time, it appeared that the regional STP would be online within four years. Had the reissued Permit not contained the December 16, 2006 requirement to cease spray irrigation, it would have instead included a schedule for upgrading the Facility's land application equipment and design. Following Permit reissuance, however, plans for a regional STP were abandoned. In examining its alternatives to regional plant connection, Craigsville and DEQ ultimately determined that it was not feasible to upgrade the land application equipment at the Facility to meet current land application regulatory requirements. As the alternative to conveying wastewater to a regional STP, Craigsville ultimately determined to upgrade and modify the Facility from a land application to a discharging treatment system. However, a number of complicated permitting, design, and funding issues have significantly delayed the planning and construction of the Facility's upgrade, most significantly the lack of a wasteload allocation for a discharge. DEQ issued Warning Letter W2007-02-V-1019 on February 6, 2007, to Craigsville for failure to cease land application by December 16, 2006, and exceedances of the Plant Available Nitrogen limits on Fields #1 and #3 during November and December 2006. On March 14, 2007, representatives of Craigsville, ACCF, Central Shenandoah Planning District Commission (CSPDC) and DEQ met to discuss the mechanisms needed to move forward with the construction of an upgraded Facility to address the expiration of the Permit's authorization to continue spray irrigation. During the March 14, 2007 meeting, DEQ requested that Craigsville submit a plan and schedule for upgrading the Facility. DEQ issued NOV's to Craigsville on May 14, 2007, July 6, 2007, and August 6, 2007, citing primarily failure to cease land application by December 16, 2006, but also failure to maintain a 2-foot freeboard in the lagoons and failure to notify DEQ of the freeboard exceedance. Funding and wasteload allocation impediments have been resolved. By letters dated November 13, 2007 and November 30, 2007, Craigsville, via its consultant, submitted to DEQ an updated plan and schedule for the construction of a new discharging sewage treatment plant to replace its failing land application system. The new discharging treatment plant is to be designed for a flow capacity of 0.435 MGD. DEQ issued NOV W2008-05-V-0001 on May 6, 2008, to Craigsville for failure to cease land application by December 16, 2006 and failure to maintain a minimum chlorine residual of 2.0 mg/l in treated wastewater being land applied to Field #1. The proposed Order, signed by the Town on May 28, 2008, requires the Town to construct a new discharging Facility to meet final effluent limitations. The Order also includes a civil charge. COST: \$10.5 Million. Civil Charge: \$2,200.

Ellis Land, LLC, Westmoreland County - Consent Special Order w/ Civil Charge: On November 6, 2008, DEQ staff inspected the Westmoreland Athletic Complex construction site in Montross, Virginia, in response to a report that sedimentation from construction activities had potentially impacted wetlands and streams. DEQ staff observed that approximately 791 linear feet of stream channel had been filled with sediment that had washed off of the construction site due to the lack of erosion and sedimentation controls. The sediment averaged 18 inches in depth, and ranged up to 30 inches deep, resulting in the destruction of fish and invertebrate habitat along the entire reach. Notice of Violation No. 07-11-PRO-702 was issued on December 6, 2007

for these unauthorized impacts. On December 17, 2007, DEQ staff met with Mr. Ward on the site. Further site investigation and a records review revealed that an additional 215 linear feet of stream and 0.06 acre of wetlands were filled during construction. Notice of Violation No. 08-01-PRO-701 was issued on January 29, 2008 for the unauthorized fill of wetlands and streams during grading activities. The Consent Order requires restoration of the streams and wetlands affected by sedimentation and construction activities, and requires monitoring to ensure these areas successfully recover. The estimated cost to comply with all injunctive relief required by the Consent Order is \$60,000. Restoration of the stream that was the subject of the December 2007 NOV has been completed. The restoration plan for the stream and wetland that were the subject of the January 2008 NOV and the monitoring plan for all impacted areas has been received and approved by DEQ. Civil Charge: \$49,802.

Walmart Stores East, LP, Kilmarnock - Consent Special Order with Civil Charges: On October 30, 2007, DEQ staff inspected the Wal-Mart Supercenter in Kilmarnock, Virginia, in response to a report that the on-site stormwater pond failed and potentially impacted wetlands and streams. DEQ staff observed that the pond failure resulted in the sedimentation over portions of 0.8 acre of a scrub-shrub wetland area and relocated 100 linear feet of stream channel. A Notice of Violation was issued on November 28, 2007 for these unauthorized impacts. The Consent Order requires restoration of the streams and wetlands affected by sedimentation, and requires monitoring to ensure these areas successfully recover. The estimated cost to comply with all injunctive relief required by the Consent Order is \$100,000. Restoration was completed in April 2008, and monitoring has begun. Civil Charge: \$6,370.

C. W. Properties, LLC, Greene County - Consent Special Order with Civil Charge: C. W. Properties, LLC owns the Site, a 14.42 acre parcel of land, which it is developing for a shopping center (Ben Leake Plaza). On August 24, 2007, DEQ received a complaint regarding potential unauthorized environmental impacts to State waters. DEQ conducted an inspection of the Site on August 31, 2007, and observed that approximately 480 linear feet of headwater intermittent stream channel and approximately 0.10 acres of pond appeared to have been filled or excavated without a permit. DEQ issued NOV No. 07-09-VRO-004 to C. W. Properties, LLC on October 15, 2007 for conducting in-stream construction, alteration of the stream bed, and filling and excavation on an intermittent stream section without a permit in violation of VA Code 62.1-44.15:5 and 9 VAC 25-210-50, which prohibit such actions without a permit. On November 6, 2007, DEQ met with Mr. Carlyle Weaver, sole proprietor/general manager of C. W. Properties, LLC, in an informal conference to discuss the violations cited in the NOV. Mr. Weaver attributed the violations to his reliance on his engineering consultants to develop the Site plans and deal with the environmental permitting issues for the Site. During the meeting, DEQ requested a plan and schedule of corrective actions to address the violations. By letters dated February 14, 2008, March 30, 2008, April 7, 2008, and April 10, 2008, C. W. Properties, LLC submitted to DEQ for review and approval a SMP to address the alleged unauthorized impacts to the Site, by providing mitigation/compensation for the stream channel impacts and by establishing riparian buffers in an area of an unnamed tributary to Preddy Creek protected by an easement to be granted on the mitigation area. The proposed Order, signed by C. W. Properties, LLC on May 21, 2008, requires C. W. Properties, LLC to compensate for the loss of stream bed and pay a civil charge to resolve the violations. Civil Charge: \$15,600.

Columbia Gas Transmission Corporation (Columbia Gas), Greene County - Consent Special Order with Civil Charge: Columbia Gas Transmission Corporation (Columbia Gas) is

constructing a gas transmission line project through portions of the Valley Region, including Greene County. As part of this project, Columbia Gas conducted horizontal directional drilling (HDD) under certain reaches of Swift Run in Greene County to lay the gas transmission line. Columbia Gas obtained proper Federal permits prior to conducting this work. No DEQ permits were required. On August 30, 2007, Columbia Gas reported a spill of approximately 10 gallons of drilling clay or bentonite to Swift Run during HDD, which it contained and cleaned up. On September 1, 2007, Columbia Gas reported a bentonite spill of 200 gallons to Swift Run that occurred during HDD when the drilling process encountered a rock fracture that allowed the bentonite a passage up to the stream (“frac out”). The Company reported that it utilized an onsite vacuum truck to clean up the spill. On September 17, 2007, DEQ received a pollution complaint about a fish kill and a release of bentonite to Swift Run which occurred on September 15, 2007, as a result of Columbia Gas’s pipeline work. On September 17, 2007, DEQ conducted an initial fish kill investigation. During the initial investigation, staff observed a few dead fish and sediment/bentonite in the stream. On September 20, 2008, DEQ responded to a message from Columbia Gas reporting a pollution problem at its Swift Run stream crossing site in Greene County. During the investigation, DEQ staff observed a few dead fish within a stream reach of approximately 80 meters. The fish kill took place primarily in a stream reach where the Company had installed coffer dams to contain the bentonite and pumped around that section, thereby dewatering the stream reach to facilitate cleanup of the bentonite. DEQ issued NOV No. W2007-09-V-003 on September 26, 2007 to Columbia Gas for unpermitted/unauthorized discharge to State waters which resulted in adverse water quality impacts, including a fish kill. On October 10, 2007, Columbia Gas reported another release of an unknown quantity of bentonite to Swift Run. On October 16, 2007, DEQ met with Columbia Gas representatives in an informal conference to discuss the September 26, 2007 NOV and resolution of those violations. During the October 16, 2007 meeting, Columbia Gas discussed the situations that led up to the bentonite releases and the related cleanup attempts. On November 16, 2007, DEQ received Columbia Gas’s initial written plan of corrective actions to complete cleanup and mitigation of the spills and prevent future spills from reaching State waters. On November 26, 2007, Columbia Gas reported that its drilling hole had collapsed, allowing the entire stream flow to enter its bore hole and exit about 1,000 meters downstream through the drilling’s exit hole, thus dewatering the stream through that segment. On November 26, 2007, DEQ staff conducted a site investigation, during which staff observed that a fish kill had taken place in the dewatered stream segment. DEQ staff determined that 1,013 fish were killed on a dewatered stream reach of approximately 1,000 meters. DEQ issued NOV No. W2007-12-V-004 on November 29, 2007 to Columbia Gas for unauthorized alterations of the physical properties of State waters which resulted in a fish kill. By letters dated December 20, 2007 and January 18, 2008, Columbia Gas submitted a revised plan of corrective actions to complete cleanup and mitigation of the spills and prevent future spills from reaching State waters. Sections of this plan and schedule have been incorporated into Appendix A of this Order. Columbia Gas has abandoned the HDD technique to lay the pipeline under Swift Run. The proposed Order, signed by Columbia Gas on May 15, 2008, requires Columbia Gas to continue to monitor the success of its stream remediation and pay a civil charge to resolve the violations. Civil Charge: \$35,100.

R & K Foundations, Inc., Franklin Co. - Consent Special Order with Civil Charge: In 2005, James and Rosie Musgrove hired a contractor to build a dam to create a pond on property owned by their construction company, R & K Foundations, Inc. (“R&K”). The Musgroves also constructed a home at the same site. The Musgroves currently live in that home and use the pond for recreational purposes. The Musgroves did not obtain a Virginia Water Protection

Permit before proceeding with construction. On February 1, 2006, WCRO staff inspected the pond site and observed that dam construction had impacted a perennial stream. Subsequent calculations indicate that total of 1,759 linear feet of stream was impacted. DEQ issued Warning Letters to R&K dated October 27, 2006 and January 10, 2007 alleging that R & K had taken impacts without a VWP permit in violation of Code § 62.1-44.5, Code § 62.1-44.15:20, and 9 VAC 25-210-50. The Warning Letters requested that R&K submit a Joint Permit Application (“JPA”) for the impacts. A consultant for R&K submitted a draft JPA on January 29, 2007. The JPA was not complete and a permit has not been issued. The Musgroves met with DEQ staff on July 25, 2007 to discuss options for coming into compliance with the Regulation. Subsequent negotiations focused primarily on the injunctive relief that would be required. The Musgroves were offered the options of either removing the dam and restoring the stream or retaining the dam and performing mitigation in accordance with an approved compensation plan using the criteria that would have been used for mitigation under a VWP permit. The Musgroves ultimately chose the mitigation option. The Order before the Board includes a civil charge of \$19,880.00 for the violations listed above. The order also includes a requirement that the Musgroves submit a mitigation plan and comply with that plan after it is approved by the Department. Mitigation required would be similar to that which would have been required had the Musgroves obtained a permit prior to constructing the pond. A potentially significant difference between these scenarios is that when a mitigation plan is approved prior to construction, the permit applicant is encouraged to find ways to avoid or reduce impacts. Because it occurs after impacts have been taken, post-construction mitigation planning cannot minimize impacts. Therefore, the cost of mitigation planned after construction is often higher than the mitigation cost of properly planned projects. Civil Charge: \$19,880.

New Town Associates, LLC and AIG Baker Williamsburg, L.L.C., James City County - Consent Special Order with Civil Charge: New Town Associates, LLC (“New Town”) and AIG Baker Williamsburg, L.L.C. (“AIG Baker”) are partners in the development of the New Town Development (“Property”) in James City County, Virginia. The Property consists of a mixed-use development and associated roads, stormwater management facilities, and utilities, and contains wetlands and streams that drain into Powhatan Creek and thereby the James River, state waters of the Commonwealth of Virginia. New Town and AIG Baker are subject to VWP Individual Permit No. 05-2948 (“Permit”), which became effective May 1, 2007 and will expire April 30, 2022. The Permit authorizes 554 linear feet of stream impacts, to be compensated on-site through preservation in perpetuity of a 0.55 acre small whorled pogonia plant colony, 4.08 acres of small whorled pogonia upland buffer immediately surrounding the colony, and 13.87 acres of non-Resource Protection Area (“RPA”) upland buffer adjacent to seven stream reaches associated with the property. The small whorled pogonia (*Isotria medeoloides*) is an orchid plant species listed as threatened by the U.S. Federal Government and endangered by the Commonwealth of Virginia. On October 15, 2007 DEQ received e-mail correspondence and supporting documentation from Williamsburg Environmental Group (“WEG”) indicating that portions of the preserved upland buffers had been cleared, grubbed and graded, reportedly due to inaccurately placed flags (flags indicate areas not authorized for impacts). Based on WEG’s calculations, unauthorized impacts included 0.05 acres of non-RPA buffer adjacent to wetlands, and 0.22 acres of small whorled pogonia buffer. DEQ staff confirmed the unauthorized impacts and inaccurate flagging by site inspection on October 18, 2007. New Town and AIG Baker were advised of the above referenced Permit deficiencies in a Notice of Violation issued on November 1, 2007. The order requires payment of a civil charge, submittal of an approvable preservation

and restoration plan and implementation schedule, and implementation of the plan upon approval by DEQ. The order was executed on June 9, 2008. Civil Charge: \$21,600.

American Timberland Company, Suffolk - Consent Special Order with Civil Charge:

American Timberland Company (“American Timberland”) owns property consisting of 60.47 acres situated on Corinth Chapel Road (Route 667) adjacent to Chapel Swamp in Suffolk, Virginia. On September 6, 2007, American Timberland had submitted to the City of Suffolk (“City”) a development subdivision site plan showing the property divided into four lots all of which front on Corinth Chapel Road. The site plan depicts a wetland line through all four parcels that apparently defines a wetland system associated with Chapel Swamp. A City construction inspector reported to DEQ possible unauthorized wetlands impacts on the property. DEQ compliance staff (“staff”) conducted a site inspection on October 22, 2007 and observed that access roads to Corinth Chapel Road had been constructed on three of the lots, with all three access roads crossing forested wetlands at one or more locations. Staff observed the absence of woody vegetation, the presence of wheel ruts and tire tracks on the constructed access roads, and piles of side-cast material, including large woody debris, uprooted trees, detritus and soil in several locations along the sides of the three access roads. Staff estimated that about 1.63 acres of forested wetlands and 48 linear feet of stream had been impacted. A review of DEQ files did not find a Virginia Water Protection (“VWP”) permit issued for wetland impacts on the property. On October 31, 2007, DEQ issued a Notice of Violation (“NOV”) for impacting wetlands without a VWP permit. In response, American Timberland submitted a Joint Permit Application (“JPA”) on November 29, 2007. The JPA was considered incomplete by DEQ. American Timberland has been working with a consultant and DEQ to complete the JPA process. American Timberland has indicated that the JPA will be revised to address retaining only a portion of one road – the minimum necessary to access all four lots; the wetlands impacted by the construction of other two roads and the remainder of the third road will be restored. As of the preparation date of this summary, American Timberland has not completed a wetland delineation. The Order would require American Timberland to pay a civil charge within 30 days of the effective date of the Order, complete a wetland delineation of the entire property, and have the wetland delineation confirmed by the United States Army Corps of Engineers (“ACOE”). The Order would also require American Timberland, within 60 days of ACOE’s wetland confirmation, to remove all fill material from delineated wetlands and to submit a complete, revised JPA for the portion of the one road it will be retaining and a restoration plan for the other two roads and the portion of the third road it will not be retaining. The Order was executed on May 29, 2008. Civil Charge: \$16,380.

Mr. W. Scott Baugh/formerly Do Drop In General Store, Powhatan Co. - Consent Special Order with Civil Charge:

Mr. W. Scott Baugh owns the property formerly called the Do Drop In General Store and gasoline station in Powhatan, Virginia. On July 19, 2006, DEQ staff conducted an inspection of the underground storage tanks (USTs) at the property. During the inspection, staff observed that there was liquid in the sumps around the pumps; there was no evidence of overfill prevention; release detection was not being performed on the pipes or USTs; and required documentation was not provided. In March 2007 Mr. Baugh bought the property and the above described alleged violations remained unresolved. Mr. Baugh was made aware of these issues in April 2007 and stated that he planned to have the USTs removed from the ground. In June 2007, Mr. Baugh notified DEQ that he was having the USTs removed from the ground. Mr. Baugh failed to submit an amended 7530 Notification Form reflecting ownership of the UST; failed to submit an amended 7530 Notification Form reflecting removal and permanent

closure of the USTs; failed to provide a copy of the County building permit to remove the USTs; and failed to provide a site assessment of the excavation zone after the USTs were removed. Mr. Baugh was issued a Warning Letter in July 2007 for the above described alleged violations. In September 2007, DEQ issued a Notice of Violation to Mr. Baugh for continued lack of response to the alleged violations. In February 2008, Mr. Baugh entered into a contract with a consultant to perform the required testing and submit a Site Characterization Report regarding the USTs removal, and to provide a completed 7530 Notification Form. Mr. W. Scott Baugh has agreed to a Consent Special Order with the Department to address the above described unresolved alleged violations. The Order requires that by March 14, 2008, Mr. Baugh submit a completed 7530 Notification Form and submit a complete Site Characterization Report for the reported removal of the USTs at the property. The Order also requires the payment of a civil charge. DEQ staff estimated the cost of injunctive relief to be approximately \$1,150. Civil Charge: \$3,700.

Dann Marine Towing, LC, Chesapeake City, MD - Consent Special Order with Civil Charge:

Dann Marine Towing, LC owns and operates a transportation company located in Chesapeake City, Maryland. On November 28, 2005, Dann Marine had control and custody of a barge containing approximately 30,000 barrels of heated liquid asphalt. The company was transporting the barge up the James River when it reportedly ran aground on an uncharted obstruction at Mile Marker 157, in Henrico County at approximately 3:30 AM. A mate on the tugboat notified the USCG National Response Center of the grounding. It soon became apparent to the tugboat personnel that the barge had sustained structural damage and began taking on water. About one hour after the grounding, tugboat personnel observed that heated liquid asphalt was leaking from a cargo compartment of the barge into the James River and immediately notified the USCG National Response Center. The USCG notified the Virginia Department of Emergency Management (DEM) and DEM in turn notified DEQ of the situation. The USCG assumed command of the site; responders deployed a boom around the barge and tugboat shortly after the incident, and recovery and cleanup operations commenced. On the following day equipment arrived to stabilize the barge for pump off and recovery efforts. The liquid asphalt remaining in the barge was offloaded onto another barge secured by Dann Marine. The asphalt, which had solidified upon contact with the frigid waters of the James River, was recovered from the bottom of the river using a clamshell crane and offloaded onto waiting dump trucks. The recovered solidified asphalt was recycled by a local business enterprise rather than placed in a landfill. The clean up and recovery operation continued until the USCG approved it as complete on December 15, 2005, after divers had inspected the site. Dann Marine has agreed to a Consent Special Order with the Department to address the above described alleged violations. The settlement was delayed because staff had requested a copy of the USCG report regarding their investigation of the incident under the Freedom of Information Act. The cost of cleanup was reported to be over \$600,000. The Order requires that Dann Marine pay a civil charge for the spill. Civil Charge: \$45,000.

Five Star Property Holdings, LLC, Richmond - Consent Special Order with Civil Charge:

Five Star Property Holdings, LLC owns the Express Mart, a convenience store and gasoline service station in Richmond, Virginia. A Notice of Violation (NOV) was issued on September 27, 2007, for the following deficiencies that were unresolved since the formal inspection conducted on July 25, 2005: (1) failure to demonstrate compliance with spill and overflow prevention equipment as specified by state regulation; (2) failure to provide records and perform required testing demonstrating compliance with release detection requirements for the underground storage tanks (USTs) and piping; and (3) failure to provide documentation

demonstrating financial responsibility (FR). Five Star Property Holdings, LLC has since submitted records verifying compliance with the spill and overflow prevention equipment; provided documents demonstrating compliance with financial responsibility; and is submitting monthly records verifying release detection testing for the USTs and piping. Five Star Property Holdings, LLC entered into a Consent Special Order with the Department to address the above unresolved alleged violations. The Order requires that copies of the monthly tank release detection testing be submitted to DEQ beginning with March 2008 and ending with the August 2008 records. The Order also requires the payment of a civil charge to be paid in six quarterly installments. The final payment is due on September 15, 2009. DEQ staff estimated the cost of injunctive relief to be approximately \$800. Civil Charge: \$7,080.

Richmond Petroleum Marketing, Incorporated, Mechanicsville - Consent Special Order with Civil Charge: Richmond Petroleum Marketing, Incorporated owns and operates Petro Express, a convenience store and gasoline service station in Mechanicsville, Virginia. On December 6, 2006, DEQ staff conducted an inspection of the USTs at Petro Express and observed the following deficiencies: failure to submit an amended 7530 Notification Form demonstrating current ownership and operation of the USTs; failure to report and investigate the presence of liquid in the sump around the pumps; failure to provide records verifying the cathodic protection equipment was operating properly; failure to provide records and perform required testing demonstrating recent compliance with monthly release detection requirements; and failure to provide documentation demonstrating financial responsibility. Richmond Petroleum Marketing has submitted records verifying the cathodic equipment was operating properly, submitted records verifying current passing tests for annual line tightness and leak detectors, and has provided documents demonstrating compliance with financial responsibility. Richmond Petroleum Marketing, Inc. entered into a Consent Special Order with the Department to address the above unresolved alleged violations. The Order requires that copies of the monthly tank release detection testing be submitted to DEQ beginning with November 2007 and ending with the April 2008 records. The Order also requires the payment of a civil charge to be paid in four quarterly installments. The final payment is due on January 10, 2009. DEQ staff estimated the cost of injunctive relief to be approximately \$950. Civil Charge: \$6,615.

Grottoes Ganesh, Inc., Rockingham Co. - Consent Special Order with Civil Charge: Grottoes Ganesh, Inc. owns an underground storage tank (UST) facility located at 309 3rd Street, Grottoes, Virginia. The owner stores petroleum in these USTs under the requirements of 9 VAC 25-580-10 et seq. Underground Storage Tanks: Technical Standards and Corrective Action Requirements and 9 VAC 25-590-10 et seq. Petroleum Underground Storage Tank Financial Responsibility Requirements (collectively, the UST Regulations). The UST Regulations require that owners of UST facilities protect USTs from corrosion, perform release detection on the USTs, properly register the USTs, properly close non-compliant USTs, and maintain both compliance records and financial responsibility for the USTs. An April 19, 2006, inspection of the facility revealed a number of alleged violations. Alleged violations noted relevant to this Consent Special Order are failure to: 1) perform release detection on UST numbers 1C and 2C, and 2) maintain financial responsibility for the facility. DEQ issued a Notice of Violation (NOV) to the owner on January 23, 2008. The owner responded by meeting with DEQ staff on February 8, 2008 to discuss resolution of the violations. On February 20 and 22, 2008, DEQ staff received copies of an invoice for the repair of the release detection system and copies of passing release detection results for the USTs dated February 15, 16 and 17, 2008. On April 29, 2008, DEQ staff received copies of acceptable financial responsibility documentation for the facility.

Submittal of these documents returned the facility to compliance with the UST Regulations. In order to resolve the past violations, the owner signed a Consent Special Order on May 22, 2008. The owner alleges that they have sold the UST facility to a new owner and have submitted the correct form, as required in Appendix A, to notify DEQ of this ownership change. All other alleged violations were resolved prior to signing the Order. The costs incurred by the owner to cure the alleged violations were approximately \$1,696. Civil Charge: \$2,333.

Division Director's Report - TMDL reports being approved under delegation to DEQ Director And Process underway to designate Broad Creek, Jackson Creek, and Fishing Bay as No Discharge Zones: The first item contained in this memorandum is to inform the Board of the pending action by the DEQ Director to approve thirty-six TMDL reports, one TMDL modification and four TMDL implementation plans as Virginia's plans for the pollutant reductions and management actions necessary for attainment of water quality goals in various impaired segments, and to authorize inclusion of the TMDL reports and TMDL implementation plans in the appropriate Water Quality Management Plans. The second item contained in the memorandum is to inform the Board of DEQ's intent to move forward with No Discharge Zone Designations for Broad Creek, Jackson Creek, and Fishing Bay, located in lower Middlesex County.

List of thirty-seven TMDL reports to be approved by the Director
Potomac River & Shenandoah River Basins:

1. "Bacteria Total Maximum Daily Load Development for Primary Contact Use and Shellfish Harvest Impairments on the Nansemond River and Mattox Creek Watersheds"

- 5 bacteria TMDLs, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments and to address VDH Shellfish Area Condemnations

2. "Bacteria Total Maximum Daily Load Development for the NF Shenandoah River, Stony Creek and Mill Creek"

- 3 bacteria TMDLs, located in Rockingham, Shenandoah, and Broadway Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments

3. "Bacteria Total Maximum Daily Load Development for Hogue Creek"

- 1 bacteria TMDL, located in Frederick County, propose bacteria reductions for portions of the watershed to address primary contact (swimming use) impairments

4. "Total Maximum Daily Load Development for Primary Contact Use Impairments Broad Run, South run, Popes Head Creek, Kettle Run, Little Bull Run, Bull Run, and the Occoquan River Watershed"

- 9 bacteria TMDLs, located in Prince William and Fauquier Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments

In the James River Basin:

5. "Bacteria TMDLs for Nansemond River and Shingle Creek, Suffolk, Virginia"

- 2 bacteria TMDLs, located in Suffolk, proposes bacteria reductions for portions of the watersheds to address a primary contact (swimming use) impairment

6. "Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Nansemond River"

- 1 bacteria TMDL, located in Suffolk, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations

7 “Bacteria TMDLs for Totier Creek, Ballinger Creek, Rock Island Creek, Slate River, Austin Creek, Frisby Branch, North River, and Troublesome Creek, in Albemarle and Buckingham Counties, Virginia”

- 9 bacteria TMDLs, located in Albemarle and Buckingham Counties, proposes bacteria reductions for portions of the watersheds to address a primary contact (swimming use) impairment

8. “Bacteria TMDLs for Blackwater Creek, Fishing Creek, Ivy Creek, James River, Burton Creek, Judith Creek, and Tomahawk Creek, in Lynchburg, Virginia”

- 7 bacteria TMDLs, located in Lynchburg City, proposes bacteria reductions for portions of the watersheds to address a primary contact (swimming use) impairment

9. “Bacteria Total Maximum Daily Load Development for Primary Contact Use –White Oak Swamp, Fourmile Creek, and Tuckahoe Watershed”

- 6 bacteria TMDLs, located in Henrico and Goochland Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments and to address VDH Shellfish Area Condemnations

10. “Total Maximum Daily Load Development for Primary Contact Use Impairments in Fourmile Creek Watershed”

- 11 bacteria TMDLs, located in Louisa, Orange, Caroline, Hanover, King William, and New Kent Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments

In the Roanoke River Basin:

11. “Bacteria TMDLs for the Banister River, Cherrystone Creek, Whitehorn Creek, Polecat Creek, Stinking River, and Sandy Creek”

- 8 bacteria TMDLs, located in Pittsylvania, Henry, Halifax and Mecklenburg Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments

12. “Bacteria TMDL for Great Creek, Mecklenburg County, Virginia”

- 1 bacteria TMDL, located in Mecklenburg County, proposes bacteria reductions for portions of the watershed to address a primary contact (swimming use) impairment

In the Tennessee-Big Sandy River Basin:

13. “General Standard (Benthic) and Bacteria Total Maximum Daily Load Development for Garden Creek”

- 2 TMDLs, located in Buchanan County, proposes chloride and TDS reductions for portions of the watershed to address an aquatic life use (benthic) impairment and bacteria reductions for portions of the watershed to address primary contact (swimming use)

14. “Bacteria and Benthic Total Maximum Daily Load Development for Knox and PawPaw Creeks”

- 3 bacteria and benthic TMDLs, located in Buchanan County, propose bacteria reductions for portions of the watershed to address primary contact (swimming use) impairments and proposes sediment and TDS reductions for portions of the watersheds to address an aquatic life use (benthic) impairment

In the Chowan River Basin:

15. “Total Maximum Daily Load Development for Primary Contact Use Impairments in Roses Creek” modification

- 1 bacteria TMDL modification, located in Brunswick, Albemarle Counties, propose bacteria reductions for portions of the watershed to address primary contact (swimming use) impairments

In the Chesapeake Bay-Small Coastal-Eastern Shore Basin:

16. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Barnes Creek, Pierce Creek, Nomini Creek, Buckner Creek, North Prong, Currioman Bay”
 - 6 bacteria TMDLs, located in Westmoreland County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
 17. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Ball, Mill, and Cloverdale Creeks”
 - 3 bacteria TMDLs, located in Northumberland County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
 18. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Church, Warehouse, Nassawadox, Westerhouse (a & b) Creeks and Holly Grove Cove”
 - 6 bacteria TMDLs, located in Northumberland County, proposes bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
 29. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – The Gulf”
 - 1 bacteria TMDL, located in Northampton County, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations
 20. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Cherrystone Inlet: Kings Creek”
 - 1 bacteria TMDL, located in Northumberland, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations
 21. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Old Plantation Creek”
 - 1 bacteria TMDL, located in Northumberland, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations
 22. “Total Maximum Daily Loads for the Shellfish Harvest Impairments in Folly Creek, Deep Creek, Hunting Creek, Bagwell Creek, Swans Gut, and Greenbackville Harbor”
 - 6 bacteria TMDLs, located in Accomack County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
 23. “Total Maximum Daily Load Reports for Shellfish Areas Listed Due to Bacteria Contamination -Horn Harbor, Doctors Creek and Davis Creek”
 - 3 bacteria TMDLs, located in Mathews County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
 24. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Chesconessex Creek”
 - 1 bacteria TMDL, located in Accomack County, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations
 25. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination -Edwards Creek, Queens Creek, Stutts Creek, Morris Creek and Billups Creek”
 - 5 bacteria TMDLs, located in Mathews County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
 26. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination and for Recreational Bacteria Impairments – Parker Creek, Assawoman Creek, and Little Mosquito Creek”
 - 6 bacteria TMDLs, located in Accomack County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
- In the Rappahannock River Basin:

27. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Corrotoman River Watershed, Rappahannock River Basin”
- 9 bacteria TMDLs, located in Lancaster County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
28. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Carter Creek and Eastern Branch”
- 3 bacteria TMDLs, located in Lancaster County, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations
29. “Bacteria Total Maximum Daily Load) Development for Blue Run, Rapidan River, March Run, UT to Rapidan River, and Cedar Run”
- 6 bacteria TMDLs, located in Orange, Greene, Madison, Albemarle, Spotsylvania and Culpeper Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments
30. “Total Maximum Daily Load Development for Primary Contact Use Impairments on Little Dark Run and the Robinson River”
- 2 bacteria TMDLs, located in Madison County, propose bacteria reductions for portions of the watershed to address primary contact (swimming use) impairments
31. “Total Maximum Daily Load for Primary Contact Use Impairments in the York River Basin”
- 6 bacteria TMDLs, located Orange and Louisa Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments
32. “Total Maximum Daily Load Development for Primary Contact Use Impairments on Matadequin and Mechumps Creek”
- 2 bacteria TMDLs, located in Hanover County, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments
33. “Total Maximum Daily Loads for Bacteria Recreation Use Impairments on The Rappahannock River and Six Tributaries: Hughes River, Hazel River, Rush river, Craig Run, Browns Run and March Run”
- 10 bacteria TMDLs, located in Culpeper, Fauquier, Madison and Rappahannock Counties, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
- In the New River Basin:
34. “Total Maximum Daily Load Development for Primary Contact Use and Aquatic Life Impairments in Laurel Fork Watershed”
- 1 bacteria TMDL, located in Tazewell and Pocahontas Counties, propose bacteria reductions for portions of the watershed to address primary contact (swimming use) impairments and sediment reductions to address aquatic life
- In the York River Basin:
35. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Aberdeen, Jones, Timberneck, Cedarbush and NS Carter Creeks”
- 5 bacteria TMDLs, located in Gloucester County, propose bacteria reductions for portions of the watersheds to address VDH Shellfish Area Condemnations
36. “Total Maximum Daily Load Development for Primary Contact Use Impairments in Pamunkey River Basin”
- 11 bacteria TMDLs, located in Louise, Orange, Caroline, Hanover, King William, and New Kent Counties, propose bacteria reductions for portions of the watersheds to address primary contact (swimming use) impairments

37. “Total Maximum Daily Load Report for Shellfish Areas Listed Due to Bacteria Contamination – Sarah Creek and Perrin River”

- 2 bacteria TMDLs, located in Gloucester County, propose bacteria reductions for portions of the watershed to address VDH Shellfish Area Condemnations

List of four TMDL implementation plans to be approved by the Director

In the New River Basin:

1. “Back Creek Watershed TMDL Implementation Plan” – proposes management actions needed to restore the primary contact (swimming) use and restore the benthic community in Back Creek, Pulaski County

In the Tennessee Big Sandy River Basin

“Upper Clinch River TMDL Implementation Plan” – proposes management actions needed to restore the benthic community in the Upper Clinch River, Tazewell County

“Knox and PawPaw Creeks TMDL Implementation Plan” – proposes management actions needed to restore the primary contact (swimming) and the benthic community in Knox and PawPaw Creeks, Buchanan County”

“Beaver Creek TMDL Implementation Plan” – proposes management actions needed to restore the primary contact (swimming) use and restore the benthic community in Beaver Creek, Washington County