TENTATIVE AGENDA
STATE WATER CONTROL BOARD MEETING
WEDNESDAY, JUNE 27, 2007, AND
THURSDAY, JUNE 28, 2007

Wednesday, June 27, 2007
House Room C
General Assembly Building
9th & Broad Streets
Richmond, Virginia

Convene – 9:30 AM

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Thursday, June 28, 2007
[Note: June 28, 2007 if needed]
TBD
Richmond, Virginia

Convene – 9:00 AM

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.
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> 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.
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> 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.

Amendments to the Water Quality Standards for Exceptional State Waters Designations (9 VAC 25-260-30): Staff has two separate Exceptional State Water items to bring before the board. The first item is a request for approval to submit the Hazel River segment within Shenandoah National Park (SNP) in Rappahannock County as a proposed fast track rulemaking as the amendment is expected to be non-controversial because the federal government is the only impacted riparian landowner. Staff will recommend not moving forward to designate the Hazel river segment in Culpeper County because of opposition from riparian property owners with Kings Grant rights and a 303(d) listing of bacterial impairment that impacts the recreational swimming use in almost half of that segment. The second item is to update the Board on staff efforts to identify waters with an emphasis on exceptional recreational activities of canoeing and kayaking for consideration as Exceptional State Water candidates and to request to proceed with locality and riparian landowner notification for two waters (North River, Amherst Co. and Little Stony Creek, Scott Co.) with canoe opportunities on United States Forest Service (USFS) property.

Request to Proceed to Public Hearing and Comment on Proposed Amendments to the Water Quality Standards – Triennial Review: Staff intends to ask the Board for approval to go to public hearing and comment on amendments to the Water Quality Standards regulation. The Board has a legal mandate for a review of the Water Quality Standards under the Code of Virginia §62.1-44.15(3a) and federal regulation at 40 CFR 131 at least once every three years. During this review the Board must adopt, modify or cancel standards as appropriate. This rulemaking is needed because new scientific information is available to update the water quality standards and changes are needed to improve permitting, monitoring and assessment programs**.** The goal is to provide the citizens of the Commonwealth with a technical regulation that is protective of water quality in surface waters, reflects recent scientific information, reflects agency procedures and is reasonable and practical. An ad hoc advisory committee advised staff on the amendments. The most important changes are a narrative criterion to recognize that certain waters in the Commonwealth are naturally low in dissolved oxygen and pH (swamp waters), updates to the toxics and bacteria criteria and special standards to reflect site specific conditions.

A Notice of Intended Regulatory Action was published September 18 – November 17, 2006 and a public meeting held in Richmond on October 12, 2006. Comments were received from nine organizations. An ad hoc advisory committee consisting of 23 members was formed and held five meetings (December 2006 – May 2007). The meetings were summarized and may be seen online at http://www.deq.virginia.gov/wqs/rule.html#TR .

The following paragraphs summarize the key sections of the regulation:

Dissolved Oxygen, pH in Class VII, Swamp Waters § 9 VAC 25-260-50

Virginia has some unique aquatic ecosystems in eastern and southeastern Virginia that are naturally low in dissolved oxygen (D.O.) and pH and the aquatic biota have adapted to these conditions. While the regulation includes a separate classification for these waters (Class VII Swamp Waters), many waters have been listed as impaired under section 303(d) of the Clean Water Act for D.O. and pH because they were listed prior to having specific information about the natural conditions of these waters. To address this concern, a narrative

exemption from the dissolved oxygen and pH criteria is proposed for these waters when it is determined that conditions are natural and not due to human-induced sources. It was decided that the most protective approach would be to use a narrative criterion to recognize the natural fluctuations of these waters rather than to develop numerical criteria for each swamp. This approach is supported by the Department of Game and Inland Fisheries and the US Fish and Wildlife Service. In addition to the narrative, the proposal includes an adjustment to the existing Class VII pH criterion from 4.3 – 9.0 to 3.7-8.0 to better reflect natural conditions.

The proposal also includes the deletion of section 55 (Implementation procedure for dissolved oxygen criteria in waters naturally low in dissolved oxygen). This section was designed to address natural dissolved oxygen impairments for the stratified waters of the Bay, stratified lakes and swamp waters. The Bay and lakes have been addressed via other rulemakings and since we are now addressing the swamp waters via a narrative criterion, the section is no longer needed.

Table of Parameters (Toxics) § 9 VAC 25-260-140

The Table of Parameters contains toxics water quality criteria for protection of human health and aquatic life. The criteria are expressed in terms of concentrations as parts per billion (micrograms/liter). Triennial Review is the appropriate time to update the Table based on new technical information on the toxicity of these parameters to human health and aquatic life.

Human Health 93 Revised Parameters - The Table of Parameters has been updated and most of the human health parameters have been recalculated using the EPA 2000 Human Health Methodology. The new methodology results in human health criteria that are 60-80% more stringent. This could have an economic impact on permittees if these particular pollutant parameters are present in their effluent.

Human Health Unchanged Arsenic and Nickel - Exceptions to the new human health methodology are for the parameters arsenic and nickel. Arsenic and nickel are under review at EPA and states are not expected to incorporate the new methodology with these two parameters. Therefore arsenic and nickel remain unchanged.

Human Health Added Methyl Mercury Fish Tissue - Also included in the Table of Parameters is a new fish tissue criterion for methyl mercury of 0.30 mg/kg. Mercury is methylated quickly in the environment and bioaccumulated in the fatty tissue of fish. EPA determined the best way to protect designated uses was to develop a fish tissue criterion rather than a water column number. This is agreeable to DEQ since we monitor fish tissue for many bioaccumulative substances; including mercury. This is the first fish tissue criterion for Virginia.

Aquatic Life Added Nonylphenol - Nonylphenol is a new criterion which is an organic chemical produced in large quantity in the United States. It is toxic to aquatic life, causing reproductive effects in aquatic organisms. It is used as a chemical intermediate and is often found in wastewater treatment plant effluent as a breakdown product from surfactants and detergents.

Aquatic Life Added Diazinon - Diazinon is a new criterion and is toxic to aquatic life, particularly invertebrates. Diazinon is frequently found in wastewater treatment plant effluent and urban and agricultural runoff.

Aquatic Life Revised Cadmium - Staff is recommending a revision to the existing aquatic life criteria for cadmium based on more recent EPA guidance. The cadmium proposed criteria is more stringent than the existing criteria.

Aquatic Life Revised Tributyltin - Staff is recommending a revision to the existing aquatic life criteria for tributyltin based on more recent EPA guidance. The tributyltin revised criteria is less stringent than the existing. It is possible the revised tributyltin criteria will result in removal of some or all of the Elizabeth River from the impaired waters list for that compound (it is still listed as impaired for other parameters).

Bacteria for Recreational Waters § 9 VAC 25-260-170

Staff is proposing two alternatives for the geometric mean criteria for bacteria. The purpose of this is to receive public input on the pros and cons of both values. Only one value will be adopted into the final regulation. The first value is 126 colony forming units (CFU)/100 ml of water which is the existing criterion and is based on an illness rate of 0.8% (8 out of 1000 swimmers may get gastrointestinal illness). The second value is 206 and is

based on an illness rate of 1.0% (10 out of 1000 swimmers may get gastrointestinal illness). It is the illness rate that will be the focus of public comment. Note that the illness rate risk level for Virginia coastal beaches is, and always has been, 1.9% (19 out of 1000 swimmers – this is not a change from existing regulation). An illness rate of 8 -10 is considered protective of primary contact recreation in freshwater and is acceptable to EPA.

The Commonwealth and DEQ will benefit from a change to a risk level of 1.0%. To illustrate this benefit, staff had done some preliminary modeling efforts via the Total Maximum Daily Load (TMDL) program and found that the slight adjustment from 126 CFU to 206 CFU provides more reasonable, but still very challenging, bacteria reduction targets in some watersheds. For example, at the current level many watersheds must eliminate 100% of the bacteria loading to the watershed, including natural input from wildlife. This makes many TMDLs impractical to implement and, for stakeholders, undermines the feasibility of achieving standards and the credibility of the program. It is believed a more reasonable and attainable criterion will increase the willingness to participate in the voluntary aspects of the TMDL implementation plans. DEQ and the Department of Health have discussed this issue and the VDH has decided to remain neutral on the issue, neither supporting nor opposing the increase in the illness rate.

The bacteria section has also been clarified to list the geometric mean as the main criteria to protect primary contact recreational uses as this is considered the environmentally relevant endpoint. Where there is insufficient data to calculate the geometric mean, then no more than 10% of the total samples in the assessment period shall exceed a maximum value (e.g. 235 or 384 for E. coli). This is a change from the existing regulation which lists both the geometric mean and the single sample maximum as the main criteria. Also, the presentation of two values (e.g. 235 or 384) is because these values are mathematically derived from the geometric means, which are presented as two alternatives.

Also included in the regulation are single sample maxima criteria for use in establishing beach advisories and closures in freshwater and saltwater. Two values (e.g. 235 or 384) are presented here as well because these values are mathematically derived from the geometric means, which are presented as two alternatives.

The requirement that no more than 10% of the total samples in the assessment period shall exceed a maximum value when there is not enough data to calculate a geometric mean will generally be used for DEQ monitoring and assessments since those programs will not usually have enough data to calculate a geometric mean. However, the TMDL program will always have sufficient data (through modeling) to calculate geometric means so the TMDL endpoints will be the geometric means.

The secondary contact subsection has been modified to reflect the same structure and wording as the primary contact section and an antidegradation statement has been added as a ‘reminder’ that if a designated secondary contact water body has better water quality than that specified by the criteria, that quality shall be maintained.

Special Standards § 9 VAC 25-260-310

There are several new special standards proposed and special standard “ff” was significant to the Environmental Protection Agency during the ad hoc discussions because it is associated with a parameter (manganese) that applies to a public water supply. Manganese is referred to as a “taste, odor and aesthetic” criterion, is derived to prevent staining of laundry and applies at the drinking water intake. Unless otherwise specified, all metals criteria are considered to apply to the “total” amount of metal in the water as opposed to a fraction of the total (e.g. dissolved). A permittee in the Roanoke Basin who discharges to a public water supply requested DEQ to work with the Health Department to determine the appropriate manganese criterion for this water supply since background total concentrations were much higher than the criterion. The Health Department recommended a protective criterion to prevent staining of laundry in this water supply would be “dissolved” and this is what staff recommends for special standard “ff.”

Another special standard “gg” was significant to the stakeholders during the ad hoc discussions. Special standard “gg” is a new benthic numerical criterion for the Little Calfpasture River which reflects a subcategory of benthic aquatic life uses due to the presence of Goshen Dam. It is common that aquatic life uses will be modified below dams. However, the standards do not reflect this. This is the first time we are establishing a subcategory of aquatic life use based on the hydrologic modification, which is one of the six reasons EPA allows states to change aquatic life uses. This is also the first time we are incorporating a quantitative measure

that reflects the benthic community health. The proposal uses a metric called the Stream Condition Index which recently became a routine component in our macroinvertebrate monitoring program to assess the general criteria and to make decisions about the health of state waters. The standard applies a stream condition index of 20.5 to less than 200 yards of the Little Calfpasture River below the Goshen Dam. Generally, a stream condition index of 60 or greater [out of 100] is considered fully attaining the aquatic life use. Several members of the ad hoc group were concerned about the low metric and where it applied. Staff addressed their concerns by making the segment very small where the low metric applies (immediately below the dam).

Other: There are other amendments proposed and these are listed on the*Summary Table Triennial Review Water Quality Standards Amendments*. These other amendments are generally housekeeping or for clarity and are not expected to generate significant public comment.

Several other issues were discussed with the advisory committee but staff does not believe revisions to the regulation are warranted at this time:

Antidegradation § 9 VAC 25-260-30
Several members of the ad hoc advisory group want DEQ to change agency procedures for implementation of the antidegradation policy. The premise of the antidegradation policy is to maintain water quality when the background concentrations are better than the criteria concentrations. Waters at or worse than the criteria are identified as 'Tier 1.' Waters with quality better than the criteria are identified as 'Tier 2' waters. DEQ guidance currently allows all the permit limits to be based on the criteria concentration (Tier 1) when one criteria concentration is exceeded in the stream. There are exceptions to that rule that add conservatism to our policy. For example, bacteria, dissolved oxygen, fish tissue or nutrient concentrations cannot be used to place a water in Tier 1. Also, public water supplies, trout streams and streams with no data are automatically Tier 2. However, the environmental groups would like us to be very specific and consider antidegradation tiering decisions to be made for each parameter. The change to the permitting practices do not require a change in the standard, rather a change in procedure. This will be discussed as guidance for the triennial review moves forward.

Mixing Zones for Persistent Bioaccumlative Toxicants § 9 VAC 25-260-20
Several members of the ad hoc advisory group want DEQ to restrict mixing zones for persistent bioaccumlative toxicants (PBTs). Some options presented were to restrict mixing for these PBTs for all dischargers, to new dischargers only, or just in endangered and threatened species waters. One of the most notorious PBTs are polychlorinated biphenyls (PCB). DEQ is only recently developing guidance for monitoring PCBs in wastewater discharges using low level analytical procedures. DEQ is also working on developing the Potomac PCB total maximum daily loads (TMDL), the Bluestone River PCB TMDL, with several others planned. Delaware has been addressing PCBs via pollution minimization plans at various sites which seem to be successful (as opposed to permit limits). Because of a new lower analytical detection limit we are finding PCBs in municipal effluent at levels higher than the criteria. DEQ is evaluating these data to determine the share of point source discharges to the overall PCB load.

Many PBTs may be found in municipal or industrial effluents; however, these are generally not considered the major sources, but rather these pollutants enter the water via more diffuse sources, such as legacy spills or mercury deposition. Because of the unknowns associated with such a requirement, staff decided not to recommend an amendment, but will revisit the issue in a future triennial review.

Ammonia, Copper, Cadmium and Cyanide Criteria § 9 VAC 25-260-140
During the ad hoc meetings, DEQ was presented new scientific information that suggested the existing ammonia and copper criteria were not protective of endangered mussels and should be updated (made more stringent) using this new information. New information was also shared with DEQ during the ad hoc on updated cadmium and cyanide data that suggested the existing criteria were too stringent and should be relaxed. DEQ staff carefully reviewed all the studies and determined that these criteria may need to be updated. However, due to the fact that EPA is reviewing some of these issues on a national level (ammonia and copper), the issues are

very complex and the impact may be very great, particularly to municipalities, we recommend not incorporating this new data in the criteria calculations for ammonia, copper, cadmium and cyanide criteria at this time. All the technical issues would be best worked out in a separate advisory committee and incorporated as a separate rulemaking at a later date after additional guidance is received from EPA.

Endangered Species
Several members believe the state and federal endangered and threatened species waters should be listed in the water quality standards. Mixing zone prohibitions, more protective ammonia and copper criteria and the halogen ban would then apply to those waters. As described above, staff decided not to make additional mixing zone prohibitions or change the ammonia and copper criteria at this time. If we do decide to make those changes, staff is not convinced that these species and locations need to be listed in the regulation. This information exists elsewhere and could be referenced. Additionally, a memorandum of agreement has been signed which describes procedures for coordination among the DEQ, the Department of Game and Inland Fisheries, the Department of Conservation and Recreation, Division of Natural Heritage and the U.S. Fish and Wildlife Service in obtaining input regarding threatened and endangered species and habitat during the Virginia Pollutant Discharge Elimination System permit issuance process.

General VPDES Permit for Cooling Water Discharges (9 VAC 25-196): The purpose of this agenda item is to request that the Board authorize the staff to issue a public notice and hold a public hearing on a draft regulation for the subject general permit. This regulation will reissue the existing general permit for cooling water discharges that was originally adopted by the Board in 2003, and which will expire on March 1, 2008. The significant revisions to the regulation are as follows:

- Changed the title of the regulation to indicate the coverage restrictions.
- Section 196-60. Registration Statement.
  - Changed item # 6 to require either an engineering analysis, or a technical evaluation of the active ingredients of the chemical additives proposed to be used, to determine the concentration in the discharge. Previously only required an estimate of the concentration in the discharge.
- Section 196-70. General Permit.
  Part I. Effluent Limitations and Monitoring Requirements.
  - Footnote # 3. Clarified that the ammonia monitoring only applies where the source of the cooling water is disinfected using chloramines.
  - B. Special Conditions.
    - Changed item # 3.d to require either an engineering analysis, or a technical evaluation of the active ingredients of the chemical additives proposed to be used, to determine the concentration in the discharge. Previously only required an estimate of the concentration in the discharge.
    - Added item # 7 - Geothermal systems using groundwater and no chemical additives. This condition allows a permittee to apply for reduced monitoring if they have a geothermal system using groundwater and no chemical additives, and their monitoring data shows they are in full compliance with their effluent limitations. The Department must authorize the reduced monitoring, and any subsequent enforcement action will require the permittee to resume the full permit monitoring requirements.

Request to Proceed with Public Hearing and Comment on Re-issuance of General Virginia Petroleum Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Ground Water Remediation, and Hydrostatic Tests (9 VAC 25-120-10 et seq.): The General Virginia Petroleum Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites and Hydrostatic Tests (9 VAC 25-120-10 et seq.) expires on February 26, 2008. Staff will request Board approval to proceed with the Notice of Public Comment and Hearing for the re-issuance of this general permit regulation with amendments to the regulation as discussed in the background section below. The General Virginia Petroleum Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Ground Water Remediation, and Hydrostatic Tests (9 VAC 25-120-10 et seq.) governs the discharge of wastewaters from sites contaminated by petroleum products or chlorinated

hydrocarbons and the hydrostatic testing of petroleum and natural gas storage tanks and pipelines. These wastewaters may be discharged from activities including, but not limited to, aquifer tests to characterize site conditions, hydrostatic tests of natural gas and petroleum storage tanks and pipelines, hydrostatic tests of underground and above ground storage tanks, purging contaminated ground water to remove free product from the ground, or discharges resulting from petroleum or chlorinated hydrocarbon cleanup activities. Changes proposed to the existing regulation include permitting discharges to state waters listed as a source for public water supplies and permitting discharges of wastewater contaminated by chlorinated hydrocarbon solvents. The major changes proposed to the existing regulation are to allow coverage of discharges to state waters listed as public water supplies and to allow coverage of discharges involving chlorinated hydrocarbon solvents under this general permit regulation. Effluent limits for some constituents in the current General Permit also have been amended to reflect aquatic toxicology data that was not available during the last re-issuance period for this regulation. As with an individual VPDES permit, the effluent limits in the general permit are set to protect the quality of the waters receiving the discharges. The proposed changes to the regulation are discussed below:

1. Proposed Amendment: allow coverage of discharges to waters listed as sources for public water supplies under this general permit regulation**.** Discharges of petroleum contaminated wastewater to water bodies listed as a source for public water supplies are not allowed under the present general permit regulation. Persons cleaning up petroleum releases and DEQ staff have found that not being able to cover this type of discharge under a general permit causes delays and sometimes results in less effective clean up of petroleum as other remedial approaches must be found to deal with petroleum contaminated wastewater.

Persons serving on the Technical Advisory Committee (TAC) for this regulation re-issuance believe that the primary concern of allowing discharges to waters listed as sources for public water supplies is the perception that allowing this type of discharge is not sufficiently protective of human health.

The Water Quality Standards for Public Water Supplies generally are more restrictive than aquatic toxicity-based values. The effluent limits recommended for discharges to waters listed as sources for public water supplies are based upon either the Water Quality Standard for Public Water Supplies or an aquatic toxicity-based value, whichever is more restrictive.

The TAC recommends using a higher monitoring frequency for wastewater discharges into surface waters listed as sources for public water supplies than the monitoring frequency required for discharges to non-public water supplies. This increased monitoring frequency will allow the permittee to identify treatment problems more quickly and take steps to correct their wastewater treatment system so that effluent limits can be maintained. Also, this permit does not allow discharges within 5 miles of a public water supply intake. The TAC members believe that effluent limits for discharges to public water supplies and the minimum five-mile distance from public water supply intakes are protective of human health.

Another advantage of permitting discharges to public water supplies is cost. Costs for most petroleum cleanups are paid for by the Virginia Petroleum Storage Tank Fund (VPSTF). When discharges from petroleum cleanup operations cannot be covered under this general permit, persons conducting the cleanup must manage the petroleum contaminated wastewater by other means including obtaining an individual VPDES permit to discharge that wastewater, re-infiltrating the wastewater through infiltration galleries at the site, or hauling the wastewater to an offsite treatment facility. All of these options typically are more expensive than discharging under a general permit and use of VPSTF monies for these extra costs is a poor use of a limited funding source.

Persons wishing to discharge under this general permit benefit by not having to pay permit fees that they would have to pay to obtain an Individual VPDES Permit. Persons also may obtain coverage under a general permit within a few weeks. By contrast, obtaining coverage under an individual permit often takes more than six months. This savings in time is of great benefit to persons having time-critical projects.

2. Proposed amendment: allow the coverage of discharges of chlorinated hydrocarbon solvent-contaminated wastewater under this permit. Chlorinated hydrocarbon solvents are common ground water contaminants. At the present time, persons wishing to clean up sites contaminated with these constituents must recover them and take them to an offsite treatment facility or receive an Individual VPDES Permit for discharging wastewater contaminated by chlorinated hydrocarbons to surface water. The cost of hauling wastewater to an offsite facility and the costs and time involved to apply for and receive an Individual VPDES Permit are barriers to cleanup, re-use, and economic re-development of brownfields.

Reasons to include wastewater discharges containing by chlorinated hydrocarbons in this general permit regulation include:

A. There is, at present, no expeditious method to permit discharges involving these constituents. Lack of an expeditious method to permit these discharges may tempt persons to "take their chances" and proceed with a discharge without obtaining a permit for that discharge. Having these constituents addressed under a general permit would benefit those who want to abide by the rules and obtain a permit for their discharge while, at the same time, allow DEQ to have increased control over this type of discharge;
B. Combining petroleum and solvent discharges within the same general permit is not a new concept. Several other states have "groundwater remediation general permits" that cover discharges from both petroleum and solvent cleanups;
C. The treatment systems used to remove chlorinated hydrocarbon solvents from wastewater are the same as or very similar to those used to remove petroleum (especially gasoline) constituents from wastewater;
D. Covering chlorinated hydrocarbon solvents under a general permit would be "Voluntary Remediation and Brownfield friendly;" by providing a more timely and cost-effective way of dealing with wastewater generated from cleanups at certain Brownfield-type sites; and
E. The effluent limits derived by the TAC are based on the most conservative values identified (usually Public Water Supply standards) and are believed to be very protective of human health and the aquatic environment.

Disadvantages to including chlorinated hydrocarbon solvent constituents in this permit regulation may include:

A. Many chlorinated compounds are highly toxic and it is felt by one member of the TAC that we have had insufficient time with which to evaluate the proposed effluent limits;
B. Adding chlorinated solvents to this permit regulation increases the complexity and scope of the regulation; and
C. Regional Storage Tank Program staff review permit applications (registration statements) and issue coverage under this particular general permit. Storage Tank Program staff are funded by the Virginia Petroleum Storage Tank Fund (VPSTF). Work related to issuing coverage for wastewater contaminated by chlorinated hydrocarbon solvents will need to be resolved between the Storage Tank and Water Permit Program staff.

The TAC members believe that a separate, non-petroleum compound general permit would be the best way to deal with discharges of wastewater that is contaminated by chlorinated hydrocarbons. The TAC members also realize that the development of such a general permit is highly unlikely; especially in the near term. The majority of TAC members as well as DEQ management support expanding the scope of this general permit to include chlorinated solvents. We feel that including chlorinated hydrocarbons in this general permit would encourage those who want to do the right thing and follow the rules to obtain coverage for their discharge. Likewise, DEQ would have increased control over these discharges and could ensure, to the extent practicable, that the discharges were as protective of human health and the environment as possible.

3. Proposed amendment: Add several constituents to the effluent limitations and monitoring requirements for gasoline.

A. Ethanol: One of the constituents that the Technical Advisory Committee (TAC) has recommended adding to the list of parameters to be monitored is ethanol. Both ethanol and MTBE are additives in "reformulated" automotive gasolines (RFG). The Federal Energy Policy Act of 2005 altered the RFG program including the removal of the oxygenate mandate for RFG and set forth a national renewable fuel standard (RFS). Removal of the RFG oxygenate standard and implementation of the new RFS encouraged increased ethanol usage and discouraged MTBE usage. In the Spring of 2006, many RFG marketers in Virginia began being supplied with gasoline containing up to 10% ethanol (E10) in order to replace the MTBE.

These "flexible fuel vehicles" can operate on gasoline containing up to 85% ethanol (E85). At the present time, most "flexible fuel vehicles" and E85 fueling operations in Virginia are operated by the government at various levels or other entities that operate large vehicle fleets. Retail E85 operations exist in other states and it is possible that E85 fueling operations may become more common in Virginia.

According to EPA, ethanol biodegrades rapidly and is a short-lived compound in surface waters and subsurface aquifers. Human health risks from exposure to ethanol appear to be minimal, especially when compared with the risks posed by other gasoline constituents. Likewise, aquatic toxicity levels for ethanol are quite high. Based upon these factors, the TAC does not believe that effluent limits for ethanol are needed for the discharge of waters associated with petroleum products containing up to 10% ethanol.

Ethanol concentrations in discharges of petroleum products containing greater than 10% ethanol may pose risks to aquatic organisms. The TAC, therefore, proposes an effluent limit for ethanol when the wastewater was contaminated by a gasoline containing greater than 10% ethanol.

B. Ethylene Dibromide (EDB): Ethylene dibromide (a.k.a. 1,2 dibromoethane, CAS Number: 106-93-4) is a compound added to leaded gasolines to remove lead from the combustion chamber and prevent lead oxide and lead sulfide deposits from forming within an internal combustion engine. Lead scavengers such as ethylene dibromide (EDB) are persistent in ground water and, in combination with the BTEX constituents can be good indicators of a leaded gasoline release. EDB can persist at low concentrations within ground water and is very toxic to humans. Based upon the toxicity and persistence of this constituent, the TAC has recommended an effluent limit for EDB when wastewater has been contaminated by leaded gasoline.

C. 1,2-Dichloroethane (1,2 DCA): Another compound commonly added to leaded gasoline as a lead scavenger is1,2-Dichloroethane (1,2 DCA, CAS Number: 107-06-20). Like EDB, 1,2 DCA can persist a low concentrations within ground water and is quite toxic to humans. Based upon the toxicity and persistence of this constituent, the TAC has recommended an effluent limit for 1,2 DCA when wastewater has been contaminated by leaded gasoline.

4. Proposed amendment: remove monitoring requirement for volatile organics (VOCs), semi-volatile organics (SVOCs), and dissolved metals when the wastewater has been contaminated by used oil. The present general permit requires permit holders to test their effluent for VOCs, SVOCs, and dissolved metals when the wastewater has been contaminated by used oil. These analyses are required once per year and no effluent limits have been established for them.

Used oil may contain many types of impurities or be contaminated by solvents or other chemicals. The original purpose for evaluating VOCs, SVOCs, and dissolved metals under this general permit was to determine if the wastewater at a site was a hazardous waste. The TAC evaluated this monitoring requirement and believes that this data is not needed as part of an ongoing monitoring regime. The value of analyzing water for these constituents is found prior to the discharge to determine if the discharge should be covered under this general permit. The TAC recommends requiring these analyses as part of the permit registration process so that staff may determine if the discharge is eligible to receive coverage under this general permit.

5. Proposed Amendment: modify existing effluent limits for total recoverable lead, xylenes, and naphthalene. Aquatic toxicity data available through EPA are constantly updated as new studies are performed and existing data are further reviewed and evaluated. Effluent limits for some constituents in the current General Permit have been amended to reflect aquatic toxicology data that were not available during the last re-issuance of this general permit regulation. Constituents for which the TAC has recommended effluent changes based upon updated aquatic toxicity data are xylenes and naphthalene.

The effluent limit for total recoverable lead in the present general permit regulation is based on the equation:

Effluent limit for total recoverable lead = $e^{(1.273(\ln \text{hardness}))} -4.705$

This equation came from the Water Quality Standard regulation. The Water Quality Standard for lead has been updated and the current Water Quality Standard for lead is:

Effluent limit for total recoverable lead = $e^{(1.273(\ln \text{hardness}))} -3.259$

The TAC recommends that the effluent limit for lead be changed to reflect the current, promulgated Virginia Water Quality Standard for total recoverable lead.

TMDL Reports, Wasteload Allocations and WQMP Amendments: Staff will ask the Board to approve amendments to two sections of the Water Quality Management Planning (WQMP) regulation, 9 VAC 25-720.50.A (Potomac-Shenandoah River Basin) and 9 VAC 25-720.90.A (Tennessee-Big Sandy River Basin). The amendments consist of adding two new waste load allocations because TMDL reports containing these WLAs were recently approved by EPA, and there are no numeric criteria for the WLA parameters in Virginia's

water quality standards regulation. The water bodies and localities affected by the new waste load allocations are Bull Run (located in Loudoun, Fairfax, and Prince William Counties, and the Cities of Manassas and Manassas Park) and Popes Head Creek (located in Fairfax County and Fairfax City). Also, the amendments include the modification of a waste load allocation due to a permit modification and do not effect the load allocation. The water body and locality affected by the modification of the waste load allocation is the Guest River located in Wise County.

Reissuance of VPDES Permit No. VA0028401 - Shrine Mont STP, Shenandoah County: The purpose of this agenda item is to determine the appropriate action regarding the reissuance of VPDES Permit No. VA0028401. The permittee, Shrine Mont, Inc., has applied for reissuance of their permit to discharge treated wastewater from a treatment plant serving Shrine Mont and 17 single-family homes near Orkney Springs in Shenandoah County, Virginia. The discharge is approximately one mile upstream of Lake Laura, a small impoundment on Stony Creek, and has been in existence for approximately 30 years. On April 27, 2006, the permittee submitted an application for the reissuance of this permit. The application was deemed complete on July 7, 2006; however, processing of the reissuance was delayed while waiting for approval of the financial assurance package. The financial assurance mechanism was approved on January 5, 2007. The public notice for the proposed reissuance was published in the Shenandoah Valley-Herald on January 10 and January 17, 2007. Hearing requests were received, and a public notice for the hearing was published in the Shenandoah Valley-Herald on April 4 and April 18, 2007. During the public comment period of the draft permit, the agency received letters, calls, and e-mails from 40 private citizens objecting to the draft permit, 21 of which requested a public hearing. On February 21, 2007, a public meeting was held at the Orkney Springs Fire Department to provide information to the public, to answer questions, and to listen to concerns. Thirty-four citizens attended the meeting, along with DEQ staff and the applicant. One citizen withdrew his hearing request following the meeting, but most of the citizens appeared to remain concerned with the discharge. A public hearing was held on May 3, 2007, with approximately 14 citizens in attendance, plus the applicants and their consulting engineer. Mr. Shelton Miles III served as the hearing officer. Nine citizens provided oral comments. The hearing record comment period closed on Friday, May 18, 2007, and no additional comments were received following the public hearing.

Summary Of Public Comments And Agency Response To Comments: The comments in opposition to the draft permit that were received up to the date of the hearing may be summarized into the following categories:

1. That Shrine Mont STP should be required to connect to Stoney Creek Sanitation District;
2. That excess vegetation, attributed to nutrients discharged into Lake Laura by Shrine Mont, seriously interferes with swimming, fishing, and boating;
3. That the impacts on Lake Laura resulting from the Shrine Mont discharge could negatively impact surrounding property values;
4. That the facility must be required to comply with nutrient limitations upon renewal of their permit, in order to meet the 2010 Chesapeake Bay goals;
5. That the effluent monitoring frequencies in the permit should be imposed as weekly monitoring;
6. That Shrine Mont has several hundred visitors a week/weekend during the summer months and it is believed that the STP exceeds its design capacity during those events; and
7. That the Commonwealth is considering legislation that would authorize spending up to $500 million in general funds and general revenue bonds to provide grants for upgrading local sewage treatment plants and installing nutrient removal technology (HB 1710 and SB 771). The legislation would allow localities and sewage authorities to plan for the future by ensuring that state cost-share dollars will be available. Shrine Mont should attempt to avail themselves of such a grant if the bills are passed.

The staff's responses to these comments are provided below.

1. Public Comment

   A better alternative means of processing sewage from Shrine Mont/Orkney Springs has already been offered to Shrine Mont, which is to connect to the Stoney Creek Sanitary District. Shrine Mont should be required to connect to the Stoney Creek STP.

   DEQ Response

Negotiations between Shrine Mont and the Stoney Creek Sanitary District have been ongoing for several years. These negotiations are still ongoing; however, there are several issues that must be addressed before the two parties can agree to this connection. Cost is a major issue: estimates for Shrine Mont to connect to Stoney Creek Sanitary District top $1.2 million. Also, Shrine Mont is not currently within the Sanitary District's service area. Ultimately, DEQ cannot require Shrine Mont to connect to the Stoney Creek Sanitary District, nor can DEQ compel the Sanitary District to accept this connection. Regardless, a decision to connect to the Stoney Creek STP is a matter between the Shrine Mont owners and the Sanitary District. In any case, Shrine Mont would continue to need a VPDES permit until that connection occurs.

2. Public Comment

Each year the vegetation in Lake Laura gets progressively worse. Algae blooms and excess vegetation, attributed to the nutrient discharge released into Lake Laura by Shrine Mont, seriously interfere with swimming, fishing, and boating.

DEQ Response

A study of Lake Laura was done in 1986-87 and 1990 in response to nutrient enrichment concerns**.** The permittee also collected Lake Laura data from 1992 to 1996. Based on results of those two studies, and comparing the data to proposed lake nutrient criteria, it does not appear that Lake Laura is undergoing increased eutrophication caused by the Shrine Mont STP discharge. DEQ staff has discussed this concern with Department of Game and Inland Fisheries staff and, although they have observed increased aquatic vegetation growth, their opinion is that the lake is in good condition. Nevertheless, DEQ is in the process of conducting additional monitoring in the receiving stream and Lake Laura to determine current nutrient levels in the Lake. As part of this effort, we intend to revise the draft permit to require monitoring of nutrients in the STP effluent.

The Shrine Mont STP currently operates advanced wastewater treatment units consisting of chemical coagulation, settling, and filtration. Although these units were most likely installed for algae control, they are very likely providing some phosphorus removal treatment as well.

3. Public Comment

The impacts to Lake Laura from the Shrine Mont discharge could negatively impact surrounding property values.

DEQ Response

As discussed in the previous response, based on the results of previous studies on Lake Laura, the Shrine Mont STP discharge does not appear to be a significant cause for the increased vegetation that has been reported in Lake Laura. However, based on concerns raised regarding Shrine Mont's contribution to the eutrophication of the lake, DEQ is in the process of conducting additional monitoring in the receiving stream and Lake Laura.

4. Public Comment

Shrine Mont must be required to comply with the new nutrient limitations upon renewal of their permit, in order to meet the 2010 Chesapeake Bay goals.

DEQ Response

The law does not currently impose nutrient limitations on STPs having a design capacity of less than 0.04 MGD in order to meet the 2010 Chesapeake Bay goals. If the facility were to expand to 0.04 MGD or greater design flow, they would be required to meet a Total Nitrogen limit of 8.0 mg/L and a Total Phosphorus limit of 1.0 mg/L, or possibly even more stringent N and P limits. The assessment of our Chesapeake Bay Program staff is that the State's nutrient upgrade efforts should be focused on the much larger facilities, and that these small facilities contribute insignificant nutrient loads to the Bay.

5. Public Comment

The effluent monitoring frequencies in the draft permit are 1/Month. These should be imposed as weekly monitoring. If the facility only has to meet a weekly limit once a month, high hourly and daily levels could damage the creek.

DEQ Response

The agency guidance for this size facility is that monitoring for cBOD, TSS, and Ammonia should be 1/month. Several other parameters are monitored daily. This ensures that the discharge is inspected at

least once per day for anything that appears to be unusual. This STP discharge is pumped, which ensures that the rate of discharge is controlled over time, and the discharge flow volume is monitored daily. Our review of the records indicates that the discharge flow is consistently being maintained within the facility's design flow, and that the effluent quality is almost always in compliance with the permit. This data is supported by the results of our facility inspections. Consequently, we believe that the monitoring frequencies are adequate and adequately represent the effluent quality.

6. Public Comment

Shrine Mont has several hundred visitors a week/weekend during the summer months and it is believed that this number of people would cause the design capacity of the STP to be exceeded during those events.

DEQ Response

Based on a review of the facility's Discharge Monitoring Reports (DMRs), Shrine Mont has not exceeded its average monthly discharge design capacity at any time during the past 5 years. Furthermore, both the current permit and proposed draft permit contain a 95% Capacity Reopener special condition. The special condition requires the facility to submit a written notice and plan of action to DEQ when the monthly average flow influent to the wastewater treatment plant reaches 95% of the design capacity for each month of any three consecutive month period.

A more detailed review also indicates that flows during summer weekends are not excessive, either. Although the STP flows are usually slightly higher through the weekends, they are still in the 0.02 MGD range, which is well within the facility's design capacity, and do not appear to affect the ability of the STP to meet its effluent limits. The effluent pumping, which is part of the advanced wastewater treatment processes, also provides an additional opportunity to get better data on daily flows.

7. Public Comment

The Commonwealth is considering legislation that would authorize spending up to $500 million in general funds and general revenue bonds to provide grants for upgrading local sewage treatment plants and installing nutrient removal technology (HB 1710 and SB 771). The legislation would allow localities and sewage authorities to plan for the future by ensuring that state cost-share dollars will be available. Shrine Mont should attempt to avail themselves of such a grant if the bills are passed.

DEQ Response

House Bill 1710 was approved on April 4, 2007. The bill allows for reimbursement to localities of funds for upgrades of publicly owned treatment works and authorizing the use of proceeds from Virginia Public Building Authority bonds to fund water quality improvement grants. This money is only available to localities and sewage authorities. However, Shrine Mont may be able to benefit from funds that could potentially be available to Stoney Creek Sanitary District, allowing Shrine Mont to connect at a lower fee.

Presented below is a summary of the additional comments and information received at the public hearing, and the staff's responses. No additional comments have been received since the public hearing.

1. Public Comment

The design flow for Shrine Mont STP is 0.039 MGD. This design flow is just under the 0.04 MGD threshold, which would require increased monitoring and more stringent permit limits. Given the fact that Shrine Mont STP discharges to an unnamed tributary of Stony Creek, which is listed as impaired, the monitoring frequencies should be similar to facilities with a design flow of 0.04 MGD.

DEQ Response

Stony Creek is currently listed as impaired for bacteria and temperature, neither of which have been suggested as parameters of concern for this discharge. Since Shrine Mont STP is required to meet the water quality criterion for bacteria at the point of discharge, this facility can not cause or contribute to the bacterial impairment in Stony Creek. The effluent monitoring frequencies in the permit are in accordance with the recommended monitoring frequencies listed in the VPDES Permit Manual. The monitoring frequencies are based on the design flow of the facility, and are consistent with monitoring frequencies for facilities of similar size. In reviewing the facility's compliance history, there is nothing to indicate a need for more frequent monitoring than those recommended in the VPDES Permit Manual.

2. Public Comment

Shrine Mont should be issued a temporary permit until they can connect to the Stoney Creek Sanitary District, at which time the permit would no longer be valid.

DEQ Response

The DEQ does not have the authority to require Shrine Mont to connect to the Stoney Creek Sanitary District. Shrine Mont has submitted an application for the reissuance of their permit, and DEQ is required to process that application and prepare a draft permit in accordance with governing laws and regulations. If the permittee works out an arrangement with the Sanitary District whereby they can connect, we can terminate the Shrine Mont permit at any time following acceptable closure of the STP.

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

Reissuance of VPDES Permit No. VA0073245 - Coors Brewing Company – Shenandoah, Rockingham County: The purpose of this agenda item is to determine the appropriate action regarding the reissuance of VPDES Permit No. VA0073245. The permittee, Coors Brewing Company, has applied for reissuance of their permit to discharge treated industrial wastewater from two outfalls serving the Coors Brewing Company-Shenandoah facility near Elkton, Virginia. This facility discharges to the South Fork Shenandoah River and has been in existence for approximately 20 years. On July 28, 2006, the permittee submitted an application package for the reissuance of this permit. The application was deemed complete on August 31, 2006. The public notice for the proposed reissuance was published in the Daily News Record on January 13 and January 20, 2007. A hearing request was received, and a public notice for the hearing was published in the Daily News Record on April 12 and April 19, 2007. During the public comment period of the draft permit, the agency received letters, calls, and e-mails from the Shenandoah Riverkeepers organization and two private citizens objecting to the draft permit, one of which requested a public hearing. On March 26, 2007, a meeting was held at the DEQ-Valley Regional Office to provide information to the public, to answer questions, and to listen to concerns. The Shenandoah Riverkeeper (Jeff Kelble) and two colleagues attended the meeting, along with DEQ staff and the applicant. A public hearing was held on May 18, 2007, with approximately 6 citizens in attendance, plus representatives of the applicant. Mr. Shelton Miles III served as the hearing officer. Two citizens provided oral comments. No additional comments have been received to date following the public hearing. The hearing record comment period will close on June 4, 2007. Any additional comments received will be forwarded to the Board, along with the staff's recommendation, as an addendum to this agenda item.

The comments in opposition to the draft permit that were received up to the date of this agenda item may be summarized into the following categories:

1. That this proposed permit action was processed as a reissuance;
2. That the permit authorized increased Total Suspended Solids (TSS) loadings at the expansion flow tiers for a discharge to a stream that is currently included on the 303(d) list for benthic impairment;
3. That relaxation of the minimum Dissolved Oxygen (DO) limit for the 6.0 MGD flow tier should not be allowed;
4. That nutrient requirements were not adequately addressed in the draft permit;
5. That a 1980 stream model was used to characterize the discharge;
6. That more frequent routine monitoring of the effluent should be required;
7. That the storm water requirements at Outfall 002 are inadequate;
8. That increased monitoring under the toxics management program should be required;
9. That the toxics release reporting provisions of the draft permit are too lax;
10. That the flow tiers are inconsistent;
11. That the restriction on floating solids and visible foam should be enforceable; and
12. That the public should be provided the opportunity to review and comment on any diffuser design that is submitted for approval.

The staff's responses to these comments are provided below.

1. Public Comment

This draft permit is identified as a permit renewal (reissuance), although the actual production, flows, and loads for several pollutants will actually increase as a result. We believe the Coors expansion currently contemplated is not within the original permit, and should be treated as an expansion. The effect of treating Coors as an expansion is that the permit should be held to the standard: [No permit may be issued] to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. 9 VAC 25-31-50 (C)(9).

The facility is adding new production facilities, increasing flows, and loads and DEQ should review the new process and expanded discharge as a New Source. The Fact Sheet, Appendix C, pg. 6 states: "At this reissuance, the brewery expansion is currently being constructed and the facility will initiate on-site brewing of beer in the second quarter of 2007. The current construction effort will produce a brewery capable of producing 7 million barrels of beer per year, with the 10 million barrel facility remaining as the overall long term operational goal." Previously, Coors conducted beverage blending and bottling, but not brewing, at this facility. This is a new production facility, independent of the other facility functions, and qualifies as a New Source under 9 VAC 25-31-10.

Coors is not only constructing new production facilities, but will require additional construction of treatment capacity to accommodate its expansion. If it ever operated near 6 MGD or even 4 MGD, which is not clear from the documents, such treatment facilities are likely out of service at this point in time.

DEQ Response

The brewery expansion is neither a "new source" or a "new discharge" within the meaning of the VPDES Permit Regulation, as follows:

- The VPDES Permit Regulation defines a "new source" as any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
  (a) After promulgation of standards of performance under § 306 of the CWA which are applicable to such source; or
  (b) After proposal of standards of performance in accordance with § 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with § 306 of the CWA within 120 days of their proposal.
- The VPDES Permit Regulation also defines a "new discharger" as any building, structure, facility, or installation:
  (a) From which there is or may be a discharge of pollutants;
  (b) That did not commence the discharge of pollutants at a particular site prior to August 13, 1979;
  (c) Which is not a new source; and
  (d) Which has never received a finally effective VPDES permit for discharges at that site.
- No standards of performance have been promulgated under § 306 of the CWA which are applicable to brewery operations. In addition, construction of production facilities that were to serve as part of the eventual brewery was completed prior to April 1987. Portions of these production facilities have been in use since that time and will be used as part of the brewery operation. Since the time that construction was initially completed, additional periodic construction of the brewery has also occurred.
- The facility's current permit already provides for these discharge tiers.

Public Comment

It appears that DEQ considers this a renewal because the previous permit provided for possible expansion by including "tiers" of limits for different flow rates, from its present rate of 2.0 MGD up to a maximum of 6.0 MGD. However, the Appendix A to the Fact Sheet states "The design flow of the current treatment facility (Outfall 001) is 2.5 MGD, as provided in the VPDES reissuance application." (p.1)

In other regulations, DEQ has deemed an "expansion" to occur when construction is required and no approval for the construction has been issued prior to the reference date. (Under 9 VAC 25-820-10, "'expansion' or 'expands' means initiating construction at an existing treatment works after July 1, 2005 to increase design flow capacity, except that the term does not apply in those cases where a

Certificate to Construct (for sewage treatment works, or equivalent DEQ approval for discharges from industrial facilities) was issued on or before July 1, 2005.") Here, DEQ has not yet seen nor approved a Conceptual Engineering Report for the increased treatment capacity. Thus, the fact that a prior permit had flow tiers should not be viewed as obviating antidegradation review as for an expansion, where the permittee has never exercised those flow tiers. If this were the case, any facility could request new permit tier capacity to its conceivable future build-out, so as to avoid application of the prohibition against contributing to violation of water quality standards in 9 VAC 25-31-50(C)(9).

DEQ should explain why flows above recent years' flows and requiring construction of new treatment facilities should not be considered an expansion, subject to the prohibitions in 9 VAC 25-31-50 (C)(9), and to an antidegradation analysis. The explanation in Appendix G, p. 3, is lacking; 9 VAC 25-31-200(B)(4) does not contemplate permits with flow tiers that are being applied decades later to a different production facility and to new treatment capacity.

DEQ Response

This permit action is a reissuance of an existing permit to discharge wastewater at multiple flow tiers already contained in the current permit. As discussed above, the brewery is not considered a new source or a new discharger, and therefore the requirements of 9 VAC 25-31-50(C)(9) are not applicable. Regardless, water quality impacts are not expected to result from operating at the higher design flow tiers. As part of the antidegradation review at this reissuance, the South Fork Shenandoah River in the immediate vicinity and below the Outfall 001 discharge was determined to be a Tier 1 waterbody because it is included on the currently approved 303(d) list for not meeting the General Standard (Benthics) for aquatic life use. Tier 1 waters are defined as those waters wherein one or more standards are not being attained or wherein the existing quality, under critical conditions, is equal to but does not exceed one or more applicable criteria. For Tier 1 waters, the antidegradation policy in 9 VAC 25-260-30 requires that the existing beneficial uses and the quality necessary to protect such existing uses be maintained. Current data indicates that the Coors discharge does not cause the benthic impairment in the South Fork Shenandoah River. The benthic impairment exists upstream of the Coors discharge and, in the most recent monitoring (2006), benthic conditions were worse upstream of the Coors discharge than downstream. A Total Maximum Daily Load (TMDL) study for this segment of the South Fork of the Shenandoah River (including discharges from Coors) is scheduled for 2010, and this study will determine the pollutant or pollutants responsible for the benthic impairment. The TMDL will then set reductions on pollutants of concern throughout the watershed. To allow for the upcoming TMDL study, the segment permits contain TMDL reopener clauses that allow DEQ to modify all affected permits upon the completion of the TMDL where reductions for specific pollutants are indicated.

2. Public Comment

To ensure that existing uses are maintained, as required for segments that are Antidegradation Tier 1, DEQ must evaluate the effect of the increased TSS loads on benthic quality. DEQ should identify and clarify its policy for addressing increases of pollutant loads into currently impaired waters. It is inconsistent with the purpose and structure of the Clean Water Act to avoid application of water quality standards protections.

The impairment status also compels DEQ to reconsider the need for water-quality-based standards. In particular, DEQ should clarify the TSS limits. Appendix C indicates TSS is based on BPJ (tables); considered water quality standards (p. 6), and then simply asserts that the existing limits will be carried forward, referring to them as technology-based (p. 9). The designation of the receiving water as impaired for aquatic life indicates that DEQ should reevaluate all parameters, including TSS, for water quality based limitations.

DEQ Response

There is no Water Quality criterion for TSS against which to evaluate Antidegradation as per 9 VAC 25-260-30.

In the absence of TSS Water Quality criterion, effluent TSS limits for municipal discharges are based on the Secondary Treatment Regulation contained in the Federal Effluent Guidelines. By extension, staff used these effluent TSS limits for this industrial discharge based on Best Professional Judgment (BPJ). In these applications, TSS in a wastewater discharge typically does not cause impacts

to downstream water quality. Where impacts are seen, and where no Water Quality criteria have been developed for a parameter, a site-specific study, such as the TMDL study to be conducted in this river, is necessary to determine if effluent concentrations or loadings need to be set lower than any applicable federal effluent guideline or BPJ values. Appendix C has been revised to clarify the basis for the TSS limits.

Public Comment

Segment has been named as impaired for benthics but the TMDL plan has not been prepared. It is inappropriate and illegal for the state to issue a permit allowing dramatic increases in suspended solids (TSS) discharges for Coors given that it will discharge to a segment that has known impairment. If this is a carryover of an old permit condition, it remains illegal and inappropriate now that the river is known to be impaired. The permit should limit TSS loading to current levels for all levels of flow, until such time that the TMDL is completed.

DEQ Response

As discussed above, current evidence suggests that it is unlikely that the Coors discharge is the cause of benthic impairment in the South Fork Shenandoah River. The TMDL study is scheduled for 2010, and this study will determine the pollutant or pollutants responsible for the benthic impairment, and set reductions throughout the watershed. To allow for the upcoming TMDL study, the Coors permit contains a TMDL re-opener clause that allows DEQ to modify the permit upon the completion of the TMDL if reductions in a specific pollutant are needed.

3. Public Comment

DEQ should explain how it can simultaneously justify "backsliding" of the minimum DO for the 6.0 MGD tier because it has not yet been effective, and consider the facility fully permitted for the 6.0 MGD flow and associated pollutant limitations.

DEQ Response

After discussing this issue with Coors, the draft permit was revised to include a minimum DO limit of 6.5 mg/L for the 6.0 MGD tier. This DO limit is identical to the limit contained in the previous permit.

4. Public Comment

The permit should include a Technology-based Nutrient Limitation Reopener, consistent with the Chesapeake Bay Tributary Strategy and 9 VAC 25-720 and 9 VAC 25-820, to the effect that if the permit holder constructs nutrient control technologies, the permit may be reopened to impose technology-based effluent concentration limits. (See 9 VAC 25-40-70 A: "As specified herein, the board shall include technology-based effluent concentration limitations in the permit for any facility that has installed technology for the control of nitrogen and phosphorus whether by new construction, expansion, or upgrade. Such limitations shall be based upon the technology installed by the facility and shall be expressed as annual average concentrations.") Moreover, if Coors is constructing nutrient control technology in the near future in conjunction with its expansion, DEQ should include technology-based limitations now.

DEQ Response

Limits have already been established pursuant to the Water Quality Management Plan regulation. Any nutrient control equipment installed pursuant to Coors' Compliance Plan will be required to meet annual concentration limits based on the technology installed.

The nutrient reopener special condition in the draft permit has been revised to reference the future requirements for technology-based effluent concentration limits. The revised reopener special condition is shown below. The TMDL reopener special condition contained in the previous draft was also combined into this revised reopener special condition.

This permit may be modified or, alternatively, revoked and reissued:

a. *If any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements;*
b. *To incorporate technology-based effluent concentration limitations for nutrients in conjunction with the installation of nutrient control technology, whether by new construction, expansion or upgrade, or*

To incorporate alternative nutrient limitations and/or monitoring requirements, should:

(1) the State Water Control Board adopt new nutrient standards for the waterbody receiving the discharge, including the Chesapeake Bay or its tributaries, or

(2) a future water quality regulation or statute require new or alternative nutrient control.

Public Comment

Draft VPDES permit VA0073245 proposes a discharge of up to 6 MGD of wastewater effluent from the Coors Brewing Company in Elkton into the South Fork of the Shenandoah River, yet sets forth no restrictions on the amount and concentration of total nitrogen (TN) and total phosphorus (TP) that is allowed to be discharged. As a tributary of the Chesapeake Bay, discharges into the Shenandoah River system from Coors contribute to the ongoing and pervasive impaired status of the Bay and listing on Virginia's Section 303(d) list.

In our view, VA0073245 should contain final, enforceable load and concentration effluent limits for TP and TN. Even if such limits are included in a nutrient general permit, there is no harm in including limits in both the individual and general permit, and it is clearer that they are enforceable, and more transparent for the public, if such limits are set forth in the individual permit.

As a matter of background, the regulation setting forth nutrient loads and concentrations for specific facilities in the Shenandoah watershed that is set forth at 9 VAC 25-720-50-C specifically allocates for the Coors facility, at a design flow of 4.5 MGD, a TN load of 54,820 lbs/yr at a concentration of 4 mg/l, and a TP load of 4,112 lbs/yr at a concentration of 0.30 mg/l. On page 13 of the fact sheet, it is asserted that nutrient limits are unnecessary in permit VA 0073245 because Coors is required to obtain coverage under the general permit promulgated pursuant to 9 VAC 25-820-10. This statement in the fact sheet is inaccurate and legally and factually problematic for several reasons.

Despite this statement in the fact sheet, there is no corresponding language in the individual permit that cross-references the requirement in the general permit regulation. Indeed, there is no statement or finding in the individual permit itself that Coors has, in fact, even applied to discharge under the general permit and, if so, what final and enforceable TN and TP load and concentration limits would apply, if at all. At a minimum, there needs to be a cross-reference in the individual permit that describes final and enforceable TP and TN load and concentration limits that apply to Coors. Such a cross-reference and description in VA0073245 would be transparent and would aid interested citizens that seek to assure that nutrient effluent limits are in place and are being achieved by Bay watershed dischargers.

DEQ Response

The following footnote has been added to the effluent limits pages included as Part I.A.1, A.2, A.3, A.4, and A.5. of the permit:

"The Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall are included in the current Registration List for the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Dischargers and Nutrient
Trading in the Chesapeake Watershed in Virginia, under registration number VAN010096."

These issues were discussed extensively in the development of the Nutrient General Permit (GP) Regulation and its implementation. The decision was made to keep nutrient limitations and requirements in the GP exclusively, with the exception of nutrient concentration limits associated with certain new construction.

Concentration limits will be established based on the technology installed. Because Coors has not committed to a performance standard for nutrient removal equipment, concentration limits will not be included in the permit until after approval has been issued for the technology actually installed.

Public Comment

The language of the general permit regulation at 9 VAC 25-820-30.B. provides that the general permit will <u>not</u> control in lieu of more stringent standards in the individual permit for any facility that has installed technology for the control of nitrogen and phosphorus "*whether by new construction, expansion, or upgrade*". The fact sheet expressly states, on page 7, that "…*the brewery expansion is currently being constructed and the facility will initiate on-site brewing of beer in the second quarter of*

2007". With an expansion, it can be reasonably expected that flows will exceed the 4.5 MGD design flow basis for the TN and TP load and concentration limits in 9 VAC 25-720-50-C. As such, there is a clear need for TN and TP load and concentration limits in the individual permit in order to satisfy the legal requirement in the regulation that nutrient limits be contained in an individual permit when construction, expansion or upgrade is occurring, as with the Coors facility.

DEQ Response

These issues were discussed extensively in the development of the Nutrient GP Regulation and its implementation. The decision was made to keep nutrient limitations and requirements in the GP exclusively, with the exception of nutrient concentration limits associated with certain new construction.

The Nutrient GP Regulation must be interpreted in light of the Nutrient Enriched Waters Regulation, which states that nutrient concentration limits must be based on the design of the facilities actually installed. We do not have any such design information for the new facilities upon which to base nutrient concentration limits. Any construction that increases their design capacity beyond what was in place on July 1, 2005, which was 2.5 MGD, is considered an expansion and is subject to concentration limits. Because Coors has not committed to a performance standard for nutrient removal equipment, concentration limits will not be included in the permit until after approval has been issued for the technology actually installed.

Public Comment

The language in Condition E.10 on page 14 of the draft VA 0073245 appears to state that no current discharge limitations on TN and TP are applicable to the Coors facility. The language provides as follows:

"*Chesapeake Bay Nutrients Reopener -- This permit may be modified or, alternatively, revoked and reissued to incorporate new or alternative nutrient limitations and/or monitoring requirements should the State Water Control Board adopt new nutrient standards for the waterbody receiving the discharge, including the Chesapeake Bay or its tributaries, or if a future water quality regulation or statute requires new or alternative nutrient.*"

Because the Condition E.10 language states or implies that no current nutrient limitations are in place, the condition is inaccurate and is inconsistent with the language at 9 VAC 25-720-50-C that specifically allocates loads for the facility. The language of the reopener condition should be amended to provide that the permit shall be reopened to include any more stringent nutrient limitations that are needed for the reasons specified in the current reopener language. In addition, amended language should clearly recognize that existing nutrient reduction requirements are in place and are applicable to the Coors facility. Moreover, the last sentence should be amended to be grammatically correct.

DEQ Response

See responses above.

Public Comment

One final concern is that draft permit VA 0073245 is inconsistent with the VA regulation set forth at 9 VAC 25-720-50-C in at least one other respect. According to the fact sheet for draft permit VA 0073245, Coors is expanding brewery operations in the second quarter of 2007. Flow based discharge tiers brought forward from previous permits are proposed to remain in place. The discharge tiers of 4.7 MGD and 6.0 MGD allow for discharge loads *higher than* the design flow calculation (4.5 MGD) on which the nutrient loads and concentrations in 9 VAC 25-720-50-C are based. As such, the permit is inconsistent with the regulation at 9 VAC 25-720-50-C since it provides for discharge based on a higher flow regime than the design flow basis for the nutrient reduction regulation. This is yet another reason why individual permit VA 0073245 should include enforceable effluent load and concentration limits for TN and TP.

DEQ Response

The Total Nitrogen and Total Phosphorus calendar year load limits for Coors are included in the current Registration List for the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Dischargers and Nutrient Trading in the Chesapeake Watershed in Virginia, under registration number VAN010096. Those calendar year load limits must be met by Coors regardless of the design flow of the treatment facility. The Nutrient GP requires the submittal of a compliance plan by

July 1, 2007. The compliance plans shall contain any capital projects and implementation schedules needed to achieve total nitrogen and phosphorus reductions sufficient to comply with the calendar year load limits.

Any construction that increases their design capacity beyond what was in place on July 1, 2005, which was 2.5 MGD, is considered an expansion and is subject to concentration limits. Because Coors has not committed to a performance standard for nutrient removal equipment, concentration limits will not be included in the permit until after approval has been issued for the technology actually installed.

5. Public Comment

The Modeling Should Be Updated - Given that the status of the river segment has changed, and that there is significantly more information now than when the permit was issued, DEQ should not continue to rely on 1980 modeling. The DEQ 2004 Permit Manual states: "The models should be re-run, or a narrative explanation provided, whenever there is a change in the facility or the stream that would invalidate the assumptions used previously." (VPDES Permit Manual, rev. 6/04, at III-4.) The draft Coors permit, however, states "Effluent limits for temperature and oxygen-demanding parameters in the current draft permit have been imposed, *to the maximum extent practical*, to ensure compliance with the 1980 model." At a minimum, DEQ should explain this decision more fully. DEQ should require updating of the modeling to ensure protection of existing uses and no further impairment.

DEQ Response

Use of the 1980 model appears to be a conservative approach to evaluating this discharge. The 1980 Model assumed that the background DO concentration of the S.F. Shenandoah River was 7.0 mg/L and that the mix DO concentration was 6.96 mg/L. The DO limits at this reissuance were set to maintain the mix concentrations.

Based on an elevation of 1000 ft at the discharge point and a stream temperature of 24.7°C, the background DO that would be determined by DEQ's Regional Stream Model would be 7.275 mg/L.

Based on the ambient monitoring data at Station No. 1BSSF100.10, which is about 10 miles upstream of the Coors discharge, the minimum DO over the past 5 years was 7.3 mg/L and the 10th percentile DO over the past 5 years was 7.9 mg/L. Over the entire period of record for the station (1990-2007), there was only one result less than 7.0 mg/L. That was 6.7 mg/L on 9/21/98.

Based on the fact that the assumed background DO in the model (7.0 mg/L) is less than the predicted DO based on elevation and temperature (7.275 mg/L) and is also less than the actual DO measured in the river over the past 5 years (min = 7.3 mg/L), it appears as though the model remains valid for the DO evaluation.

Regarding temperature, the draft permit currently includes the following temperature limits at Outfall 001.

Tier 1 T_{001} =	37 ºC
Tier 2 T_{001} =	34 ºC
Tier 3 T_{001} =	30 ºC
Tier 4 T_{001} =	28 ºC
Tier 5 T_{001} =	27 ºC

These limits are based on maintaining an instream mix temperature of 21.4ºC and assume a background stream concentration of 21ºC. Based on the ambient monitoring station data, the 90th % temperature is 24.7ºC. Regardless of the effluent temperature, an instream mix temperature of 21.4ºC cannot be met.

If the limits in the draft permit currently were imposed, the following instream temperatures would result.

	T_{001}	T_{mix}
Tier 1 =	37.1	25.0
Tier 2 =	34.0	25.0
Tier 3 =	30.1	24.9
Tier 4 =	28.1	24.9

Tier 5 =	26.6	24.9

These instream temperatures all meet the WQS of 31ºC.

In addition, the special condition below has been added to the draft permit requiring the submittal of an approvable stream model within 4 years of the effective date of the permit. The updated stream model will address expansions to the treatment facility as well as current stream characteristics. *"Within four years of the effective date of this permit, an approvable stream model shall be submitted to DEQ-Valley Regional Office, predicting concentrations of dissolved oxygen, cBOD, nBOD, at 0.1 mile intervals, or comparable, in the South Fork Shenandoah River downstream of Coors extending to the Merck discharge point. Following an evaluation of the model, this permit may be modified or, alternatively, revoked and reissued in order to incorporate additional or different permit conditions."*

6. Public Comment

Monitoring provisions are weak and need to be upgraded from bimonthly to daily for pH, BOD, TSS, DO and ammonia.

DEQ Response

The VPDES Permit Manual currently recommends a monitoring frequency of 1/month for continuous process industrial wastewaters. We have no indication that any of these parameters are causing any water quality problems downstream of the discharge. Based on the past performance of the facility and the extended retention time provided by the treatment process, the current monitoring frequency of 2/month has been deemed adequate to reasonably assess the facility's performance and to effectively evaluate the potential impact on the receiving stream.

7. Public Comment

Outfall 002 should have a TSS limit as it includes storm water runoff, and there should be quarterly sampling associated with rain events.

DEQ Response

Under the General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity, the SIC codes for the activities at this facility do not require monitoring or limits for TSS. Multiple storm water BMPs are currently in place at the facility, including two sedimentation basins.

Public Comment

The permit gives 270 days to implement the storm water PPP. It should be in effect immediately, as this is not a new source and the plan should already exist.

DEQ Response

Coors has already developed and implemented a storm water pollution prevention plan (SWPPP) for the facility. Within 270 days of the effective date of this permit reissuance, the existing SWPPP must be reviewed and modified, as appropriate, to conform to the requirements of this section that may have changed since the last reissuance.

8. Public Comment

Appendix F of the Fact Sheet states: "A review of toxicity testing reports submitted by the permittee during the term of the current permit indicates that the existing discharge exhibits a reasonable potential for causing instream toxicity. There are no toxicity data to evaluate for effluent characteristics following initiation of on-site brewing." The draft permit requires quarterly toxicity testing to begin one year after the new brewing process has started. Given that the receiving water is impaired for aquatic life, and the indications from the prior toxicity tests, DEQ should require initiation of quarterly toxicity testing beginning in the summer 2007 quarter, and continuing until at there are at least four consecutive passing tests after the new brewing process is operational.

DEQ Response

In discussions with Coors following the March 26, 2007, meeting at DEQ-VRO, Coors volunteered to begin quarterly TMP testing immediately upon the start of brewing operations, and not within 1 year of the start of brewing operations as the draft permit TMP language previously stated. Part I.D.2.a.(1) of the draft permit has been revised to remove the words "…for one year…" from the first sentence to reflect that TMP testing will begin after on-site brewing has commenced and not after on-site brewing has been occurring for one year. The reporting schedule in Part I.D.2.b. further specifies that the testing shall be performed in the 1st Quarter following start of on-site brewing.

The following provides responses to the comments received during the public comment period; however in light of the above, some of these issues appear to be resolved.

[1] The impairment described in the currently approved 303(d) list is based on evidence that the stream is not meeting the General Standard (Benthics) for aquatic life use. Studies of benthic invertebrate populations[1] in the South Fork Shenandoah River performed by DEQ do provide an indication that an impairment exists, but there is not sufficient information to support a reason to believe the discharge from this facility is responsible or that ambient instream toxicity is the cause. Additionally, there are no instances of instream violations of Surface Water Quality Standards for toxic substances at the DEQ Ambient Water Quality Monitoring Station downstream of this outfall.

[2] There were no mortalities in the annual acute toxicity tests performed from 2002 through 2006 (5 tests) with the water flea (*Ceriodaphnia dubia*) in any dilution and no individuals died in 100% effluent in any test. Some toxicity was observed in the chronic tests using the same organism, but the "no observed effect concentration" (NOEC) did not trigger a need for imposing WET (Whole Effluent Toxicity) Limits when compared to the criteria described in the permit.

[3] The toxicity test results for 2002 through 2006 did not trigger a need for imposing WET Limits on the existing discharge at Outfall 001 and do not provide a basis for increasing the frequency of monitoring. Note that any toxicity test failing to meet the criteria in the permit can result in WET Limits being imposed on the facility.

[4] The current treatment system appears to be effective at controlling toxicity in the current wastewater stream. Upon initiation of brewing on-site, the wastewater characteristics will certainly change. The permit requires a return to quarterly acute and chronic toxicity testing using two organisms (water flea and fathead minnows, *Pimephales promelas*) "within" one year of this event. This window of time allows the wastewater influent to the treatment works to reach the full strength and characteristics resulting from the brewing process and allows the treatment system a short period of time to acclimate to the new wastewater. Quarterly testing results using an invertebrate and a vertebrate species in acute and chronic tests will be adequate for determining if WET Limits are required or if further characterization of the discharge is required.

9. Public Comment

The toxics release reporting provisions on page 12 of the permit are too lax. Any discharge of new toxics or an increase over what was in the application, whether it will be routine and frequent or non-routine and infrequent, should be reported before it occurs and should cause the permit to be revised to ensure no degradation of water quality.

DEQ Response

The notification requirements included as Part I.E.1. are taken directly from 9 VAC 25-31-200.A for manufacturing, commercial, mining, and silvicultural dischargers. Ideally, any discharge of a toxic pollutant which is not limited in the permit and which exceeds the specified notification level would be reported before it occurs; however, unplanned activities may take place that would result in discharges that must be reported to DEQ. Being unaware of a discharge of toxic pollutants until after it occurs is not a basis for the facility to be released from the reporting requirements. The special condition language covers both situations.

10. Public Comment

The Flow Values of the Tiers are Inconsistent - The defined flow tiers are not consistent throughout (compare I.A (1)-(5) with B (2)).

DEQ Response

No inconsistencies could be found.

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[1] DEQ's biological monitoring station at river mile 101.10 had a moderately impaired benthic assessment during the 1998 assessment cycle and was not visited during the 2004 assessment cycle. 1BSSF078.18 had a moderately impaired benthic rating during the 2004 assessment cycle. 1BSSF053.05 had a moderately impaired benthic rating during the 1998 assessment cycle and was not visited during the 2004 assessment cycle.

11. Public Comment
The restriction on floating solids and visible foam should be enforceable with required daily inspection and certification.
DEQ Response
Part I.E.3. of the draft permit has been revised to require the submittal of a revised O&M Manual for approval within 120 days of the effective date permit. The revised O&M Manual will include daily inspection and certification that there is no discharge of floating solids or visible foam in other than trace amounts. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O&M Manual shall be deemed a violation of the permit.

12. Public Comment
The permit calls for review and approval of the diffuser design. The diffuser review should include public notice and comment.
DEQ Response
The review of plans & specification documents is not required to receive public notice. Nevertheless, anyone may contact us at any time via phone, letter, or email, to receive information on the status of any project under review. In addition, our files are always open for review by the public during normal business hours, and we are always open to public input on documents under review.

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

Report On Significant Noncompliance: One permittee was reported to EPA on the Quarterly Noncompliance Report (QNCR) as being in significant noncompliance (SNC) for the quarter ending December 31, 2006. The permittee, its facility and the reported instances of noncompliance are as follows:

1. Permittee/Facility: Stafford County, Aquia Wastewater Treatment Facility

Type of Noncompliance: Failure to Meet Permit Effluent Limits (Ammonia Nitrogen, Total Phosphorus, and Biochemical Oxygen Demand) and Failure to Meet Schedule for Compliance with Permit Effluent Limits
City/County: Stafford, Virginia
Receiving Water: Unnamed tributary to Austin Run
Impaired Water: Austin Run is listed on the 303(d) report as impaired for fecal coliform. The source of the contamination is unknown.
River Basin: Potomac-Shenandoah River Basin
Dates of Noncompliance: March, April, May and June 2006
Requirements Contained In: VPDES Permit
DEQ Region: Northern Virginia Regional Office

An order addressing the referenced violations and assessing a civil penalty will be presented to the Board for its approval at the June Board meeting.

Hickory Green Dairy Farm, LLC, Clarke County - Consent Special Order w/Civil Charge: Hickory Green Dairy Farm, LLC ("Hickory Green") owns and operates a dairy farm ("the Facility") located at 1724 Berry's Ferry Lane, White Post, Virginia. The Facility is the subject of the referenced VPA permit. Under the VPA Permit, Hickory Green is required to implement a nutrient management plan ("NMP") approved by the Virginia Department of Conservation & Recreation ("DCR") which is enforceable under the VPA permit. The approved NMP for the Facility allows for the management of manure generated by 876 dairy cattle on a 1,875 acre land application area. Under the VPA permit, Hickory Green is required to maintain at least one foot of freeboard at all times on its liquid waste storage facilities. The file record for the Facility indicates that Hickory Green has intermittently experienced problems with managing the volume of manure generated at the Facility. On March 21, 2006, DEQ and Hickory Green entered into a Letter of Agreement ("LOA") to provide for limiting the number of cattle on the farm pending completion of improved manure management methods at the Facility. On March 8, 2007, in response to a complaint, DEQ staff inspected the Facility and observed that only six inches of freeboard remained in the manure storage lagoon. On March 9, 2007, DEQ issued Notice of

Violation No. W2007-03-V-0001 ("NOV") to Hickory Green citing the company for the freeboard violation and for operating with an expired NMP. In consideration that emergency action may be necessary to draw down the manure lagoon, DEQ-VRO was prepared to declare an environmental emergency and release funds under the Virginia Environmental Emergency Response Fund for that purpose. In response to the NOV, Hickory Green contracted with a custom manure applicator and had drawn down its manure storage lagoon by March 23, 2007. DEQ and Hickory Green have agreed that based on Hickory Green's compliance history, its stated business needs and on DEQ's obligation to enforce compliance with the VPA Permit, Hickory Green would enter an Order incorporating a phased approach to bringing the number of dairy cattle housed at the Facility up to the maximum number authorized under the VPA Permit. The Order limits the number of cattle which can be housed at Hickory Green to 415 animals. The Order would allow this number to be increased only if Hickory Green proposes and implements an acceptable method for enhanced manure management at the Facility. The Order also requires Hickory Green to submit an updated NMP for the Facility. Civil Charge: $2,500.

Associated Naval Architects, Incorporated, Portsmouth - Consent Special Order w/Civil Charge: Associated Naval Architects, Incorporated ("ANA") owns and operates a vessel repair and maintenance facility in Norfolk. The Facility VPDES permit authorizes ANA to discharge process wastewater and storm water runoff associated with regulated industrial activity from permitted outfalls. On December 15, 2006 DEQ staff inspected ANA and documented deficiencies in implementation of the Permit and Best Management Practice ("BMP") conditions which included spent materials, welding rods, zinc anodes, other debris, trash, paint chips, rust, and paint waste without containment or covers to prevent runoff into State waters and a small spill/release of paint and solvent on the ground next to a barge on a marine railway. Also, abrasive blast material was observed on two piers indicating lack of controls with subsequent failure to clean up the material to prevent it from falling into State waters. Trash receptacles were not observed on each pier and on board each vessel as required by BMPs to prevent trash from entering State waters. Deficiencies in the implementation of the Facility Stormwater Pollution Prevention Plan ("SWP3") were also found including: failure to sign the SWP3 and the SPW3 did not contain Facility specific conditions, did not include a complete site map, and did not provide specific equipment and areas to be inspected as required by the Permit. ANA was advised of the above referenced Permit, BMP, and SWP3 deficiencies in a Notice of Violation issued on February 6, 2007. The order requires payment of a civil charge only. ANA has addressed all Permit, BMP and SWP3 deficiencies noted above. The order was executed on April 17, 2007. Civil Charge: $7,000.

Town of Monterey, Highland County - Consent Special Order: Monterey owns and operates a sewage treatment plant serving the Town, which has approximately 158 residents and is located in Highland County, Virginia. The Facility is subject to VPDES Permit VA0023281 which allows the Facility to discharge treated wastewater to West Strait Creek in the Potomac River basin. Treatment consists of an Imhoff tank followed by four wetland beds composed of bulrushes, reeds and other aquatic plants, and finally chlorination/dechlorination. This scheme was considered experimental when it was brought online in 1993 and has experienced repeated compliance problems. The 2003 Order provided a schedule of compliance to return the Facility to compliance with the final Permit limits through conducting Inflow and Infiltration ("I&I") rehabilitation work on the sewage collection system and/or upgrade of the Facility. The Town completed the final phase of I&I repairs in the spring of 2006; however, the Town has not been able to meet Permit effluent limitations. The Town continues to experience difficulty meeting the Permit's pH, dissolved oxygen ("D.O.") and chlorine ("Cl2") effluent limitations. These problems are related to the chlorination/dechlorination treatment processes utilized by the Town in its attempts to deal with the unpredictable nature of the high chlorine demand characteristics of the wetland effluent. DEQ issued an NOV on September 27, 2006, to Monterey for Consent Order Carbonaceous Biochemical Oxygen Demand ("CBOD") interim effluent violations and pH, D.O. and Cl2 permit effluent limitation violations, in conjunction with D.O. and fecal coliform stream standards exceedances. The NOV also cites the discharge of persistent floatable solids, inadequate treatment of wastewater, and the failure to address inspection deficiencies in a timely manner. The Town has been in the process of developing a plan to replace the wetlands-based treatment facility with conventional sewage treatment technology. On October 10, 2006, DEQ received Monterey's plan and schedule of compliance for the upgrade of the Facility to

meet final effluent limitations. Sections of this plan and schedule have been incorporated into Appendix A of this Order.

Fauquier County Water and Sanitation Authority - Amended Consent Special Order w/ Civil Charge: The Fauquier County Water and Sanitation Authority ("FCWSA") owns and operates Vint Hill Farms Station wastewater treatment plant. DEQ and FCWSA entered into a Consent Special Order on March 17, 2006 to resolve exceedences of permit effluent limits for Ammonia. The Order required FCWSA to, among other things, upgrade the Vint Hill treatment system by February 1, 2007 and close the old system by May 1, 2007. On December 27, 2006, DEQ received correspondence from FCWSA providing a status of the construction. FCWSA presented a new project schedule as the contractor hired to upgrade the treatment system is unable to comply with the deadlines set forth in the Order. The new schedule places substantial completion of the project in mid-July, 2007. In addition, Vint Hill had exceedences of permit effluent limits for BOD, Total Phosphorus, and Ammonia as reported on the March 2006 Discharge and Monitoring Report (DMR). DEQ issued FCWSA a Warning Letter on May 11, 2006 citing these violations. In response to these alleged violations, FCWSA submitted a letter dated June 6, 2006 asserting that the violations were caused by a trickling filter in need of maintenance. They have since corrected this problem and continue to monitor and make adjustments as needed. The proposed Consent Order requires FCWSA to (1) Complete the treatment upgrade by no later than August 1, 2007; (2) begin meeting Ammonia Permit effluent limits within 90 days of construction completion; and (3) close the old treatment system by no later than November 1, 2007. Civil Charge: $6300.

Stafford County Board of Supervisors Aquia Advanced Wastewater Treatment Facility - Amended Consent Special Order w/ Civil Charge: The Stafford County Board of Supervisors ("County") owns and operates the Aquia Advanced Wastewater Treatment Facility ("WWTF") that treats wastewater and sewage from commercial, domestic, and light industrial sources within Stafford County. DEQ issued a Consent Order to the County for the WWTF on April 1, 2002 that contained a schedule of compliance to upgrade the WWTF to meet Ammonia limits. Although the upgrades were completed in a timely manner, DEQ amended the Order on December 12, 2005 ("2005 Amended Order") due to the County's ongoing E.Coli exceedences. Pursuant to the 2005 Amended Order, the County submitted to DEQ a plan and schedule on January 11, 2006 to meet the E.Coli limit by replacing its Trojan Ultra-Violet (UV) 2000 system with the advanced 3000 Plus system. The new system has mechanical cleaning capabilities for removing coatings on the quartz tubes thereby increasing disinfection efficiency and ensuring consistent compliance with E.Coli limits. While the Preliminary Engineering Report (PER) was under review by DEQ, an unanticipated toxic event severely impaired the treatment efficiency at the WWTF during Spring 2006. Specifically, on March 9, 2006, County staff observed an orange-colored substance in the influent flow. As a result of this toxicity, a significant loss of microorganisms occurred and resulted in numerous permit effluent violations (Total Phosphorus, Ammonia, CBOD, TSS, and Fecal Coliform exceedences) over a three month period. In an effort to address the toxic event that resulted in the violations, the County: (1) analyzed several samples from its collection system including the pump station that serves the U.S. Marine Corps Base Quantico; (2) had its consulting engineers review lab data and make process control recommendations; (3) pumped out solids from the clarifier and the anoxic zone; (4) reseeded the WWTF with healthy microorganisms from the County's Little Falls Run Wastewater Treatment Facility; and (5) installed a temporary chlorination/dechlorination system to improve disinfection performance. During this period, DEQ NVRO and DEQ Operators Assistance Program staff also visited the WWTF, but were unable to recommend any additional actions the County should take to return to compliance. Although it took three months for the plant to slowly recover from the toxic event, the County returned to, and has remained in full compliance since July 2006. However, the County's investigative efforts have not led to the identification of the specific source of the toxicity. The Consent Order Amendment requires the County to (1) complete installation of the upgraded UV system; (2) submit a collection system map; (3) submit an updated Operations & Maintenance (O&M) to address septage receiving and handling; and (4) submit a collection system/WWTF action plan to address future unanticipated toxic events. Civil Charge: $7,200.

Town of Colonial Beach, Westmoreland County - Consent Special Order w/Civil Charge: Colonial Beach owns and operates a 2.0 MGD wastewater treatment plant serving the residents and commercial businesses in

Town. On November 15, 2006, the Department issued an NOV to the Town for sanitary sewer overflows (SSOs) from their sewer collection system, effluent violations of ammonia-nitrogen and dissolved oxygen, and failure to submit two permit schedule requirements a Basis of Design for nutrient removal required in Part I Section D. 18. and an interim optimization plan for nutrient removal required in Part I Section A.19. The Town met with the Department on December 27, 2006, to discuss the compliance issues at the treatment plant. Colonial Beach has completed repairs to the sewer collection system pumps to address the SSOs that occurred at the influent pump station. The town has also repaired an electrical issue with the pumps in the aeration basin that caused the effluent violations. The Order requires the Town to expand their operation and maintenance manual to include a comprehensive management, operation, and maintenance plan for the wastewater collection system and the Order contains a schedule for the construction of the nutrient removal technologies required by the VPDES Permit. Civil Charge: $13,200.

Iluka Resources, Inc., Sussex County - Consent Special Order w/Civil Charge: Iluka is a mining operation that takes sand and separates out the heavy particles to make titanium. The Department conducted inspections of Iluka's facilities and discovered deficiencies on June 11, 2004, April 27, 2005, and May 18, 2006. On May 18, 2006, the Department observed an unauthorized discharge of 20,000 gallons from a mineral sands feed pipeline at the Hickory Mine Concentrator site. In addition to the observed discharge, Iluka has reported 10 unauthorized discharges since August of 2004. The Department held a meeting with Iluka on August 2, 2006, to discuss the compliance issues and discharges from the facility. Most of the discharges are due to the lack of maintenance on the mining system components. An NOV was issued on September 15, 2006, citing Iluka for the violations mentioned above. Civil Charge with a Supplemental Environmental Project: $17,100 with $13,500 going to a reverse 911 system for Sussex County.

Omega Protein, Inc., Northumberland County - Consent Special Order w/Civil Charge: Omega Protein owns and operates a wastewater treatment facility serving a fish processing plant in Northumberland County, Virginia. The Department issued a Consent Order to Omega on September 6, 2006, for cyanide violations at outfall 006. This Order is currently active with a requirement to upgrade the facility to meet cyanide permit limits. On November 14, 2006, the Department issued an NOV to Omega for failure to meet the Permit's effluent limit for ammonia at outfall 002 in August and September of 2006. Omega was also cited for failure to submit a quarterly progress report on achieving compliance with final phosphorous limits required by Part I.B.16. of the VPDES Permit. Omega has stated that the ammonia violations are the result of two issues; one, the activated sludge biomass underwent complete mortality after a power outage and it took time for the active biomass to build back up for adequate treatment; and two, the ammonia stripper went down and it took some time to purchase needed parts. The Order will require Omega to install a generator to keep aerators powered in the event of a power outage; and to examine the spare parts inventory for expansion to include enough parts to effect emergency repairs within two days. Civil Charge: $12,600.

Town of Surry, Surry County - Consent Special Order w/Civil Charge: The Town of Surry owns and operates a wastewater treatment system serving the residents and businesses in Town. During the previous Permit cycle from February 1, 2000, through February 1, 2005, the Town had a schedule of compliance to meet a copper limit by February 1, 2004. The Department issued an Order to the Town on June 21, 2004, for failing to comply with the Permit schedule. The Town failed to comply with the Order and on February 18, 2005, the Department issued an NOV. The Department met with the Town on October 6, 2006, to discuss the resolution of the compliance issues. After consideration of all the options, the Town has decided to connect to Surry County's regional sewer system. A sewer connection is possible at a location that is ½ mile away. The County has expressed an interest in accepting the flow because they have a new WWTP that was oversized based on future growth that never materialized. The Order requires a plan and a schedule to connect to the County Wastewater collection system. Civil Charge: $1,500.

Rennie Petroleum Corporation, King William County - Consent Special Order w/Civil Charge: On January 18, 2006 and February 15, 2006, Department staff conducted formal inspections of the Rennie Facilities. DEQ staff discovered that the ownership, tank status, tank/piping types, and/or substances stored in

the USTs had changed from what is registered with DEQ. In addition, staff found that the USTs and piping were unprotected from corrosion; the records regarding corrosion protection were not available; records of recent compliance with release detection requirements were not available; and, the facilities were lacking financial assurance. A request for corrective action for Station # 614 was issued on January 18, 2006, asking for a response to the above alleged violations by February 20, 2006. A request for corrective action for Station # 626 was issued on February15, 2006, asking for a response to the above alleged violations by March 15, 2006. On April 28, 2006, and May 5, 2006, the Department issued Warning Letters to both facilities requesting records demonstrating compliance with the deficiencies identified in the inspections and the request for corrective actions at both facilities. On September 8, 2006, the Department issued NOVs to both RPC facilities. A meeting was held on September 25, 2006, to discuss the compliance issues at the facilities. The Order requires Rennie to complete and provide results for the required release detection, line and tank tightness tests and provide for financial assurance as required by law. Civil Charge: $4,900.

Plantation Pipeline Company, Henrico County - Consent Special Order w/Civil Charge: On April 17, 2006, Plantation Pipe Line Company reported a ruptured pipeline in the Barrington Subdivision off Church Road in Henrico County. The rupture released approximately 23,226 gallons of oil (jet fuel A) into the environment. The release affected the property of several private homes and flowed into Stony Run a small tributary of Lake Loraine. On May 5, 2006, the Department issued a NOV to Plantation citing them for a discharge of oil to state waters. On June 8, 2006, the Department met with Plantation to discuss the pipeline rupture and the stream and soil remediation progress. The EPA issued an Order to cover the remediation activities based on a site characterization Plantation submitted on August 23, 2006. Remedial activities on impacted homes are continuing under the supervision of DEQ and EPA. This Order will cover the civil charge and the recovery of the investigation costs. Civil Charge with a Supplemental Environmental Project: $650,000 with $200,000 going to provide Henrico County Fire Department with hazardous material spill response equipment. In addition, Plantation will submit a separate payment of $18,341 to reimburse DEQ for its costs incurred during the course of the investigation and remediation.

Sunoco Inc., Rockbridge County and Harrisonburg - Consent Special Order w/ Civil Charge: Sunoco owns an underground storage tank (UST) facility located at 2468 Raphine Road, Raphine, Virginia. Sunoco 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 (UST Regulation). The UST Regulation requires that owners of UST facilities protect USTs from corrosion and maintain compliance records for DEQ review. An April 21, 2006, inspection of the facility revealed that Sunoco had failed to: 1) protect the USTs from corrosion and 2) maintain compliance records available for review by DEQ staff. PC #2007-6035 was opened as a result of petroleum release discovered at the facility. Sunoco previously owned an underground storage tank (UST) facility located at 2141 South Main Street, Harrisonburg, Virginia. Sunoco 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 (UST Regulation). The UST Regulation requires that owners of UST facilities perform monthly release detection check on all USTs and maintain compliance records for DEQ review. A July 21, 2006, inspection of the facility revealed that Sunoco had failed to: 1) perform release detection on the USTs and 2) maintain compliance records available for review by DEQ staff. PC #2007-6030 was opened as a result of petroleum release discovered at the facility and subsequently closed on February 22, 2007. DEQ issued a Warning Letters (WL) to Sunoco on September 27, 2006 and August 7, 2006, respectively. Sunoco failed to resolve the noted violations. Notices of Violation (NOV) were subsequently issued to Sunoco on November 9, 2006 and November 19, 2006, respectively. The Consent Special Order was signed on April 13, 2007 to resolve the past violations of the UST regulation and provide that the non-compliant USTs at Raphine facility would be closed. DEQ staff received confirmation that the USTs located at the Raphine facility had been closed on April 27, 2007. There is no action required in the Order for the Harrisonburg facility as Sunoco no longer owns those tanks. Sunoco has complied with the UST Regulation by closing the non-compliant USTs at the Raphine facility, selling the USTs at the Harrisonburg facility and by responding to all DEQ requests for corrective action. Civil Charge: $10,400

The Lester Group, Inc., Henry County - Consent Special Order w/Civil Charge: On August 29, 2006, during an inspection of the closed Henry County Sanitary Landfill, regional DEQ waste inspection staff observed grading work on adjacent property owned by The Lester Group, Inc. ("TLG"). The waste inspectors recalled that a stream had been present where the grading was taking place and told regional VWP program staff that a stream may have been affected by the work. A regional VWP inspector performed follow-up inspections of the TLG property on September 8 and 25, 2006. Inspection results indicated that approximately 800 linear feet of perennial stream bed had been filled by TLG during grading work at the site. TLG had not submitted a VWP permit to DEQ prior to grading. On October 11, 2006, DEQ issued a NOV to TLG for causing wetlands impacts without having first obtained a VWP permit. TLG representatives stated that TLG had received permits from Henry County and the Department of Conservation and Recreation for the site work and that they did not believe that a VWP permit for the stream impacts was required. At Code § 62.1-44.5.A, State Water Control Law requires a permit for filling activities at sites subject to wetlands jurisdiction, which includes perennial streams. The Order before the Board requires TLG to submit and comply with a compensation plan for the impacts caused by the grading that meets all of the requirements that would be required of a compensation plan submitted under a VWP permit. Because no further work on the site that would require a VWP permit is anticipated, TLG will not be required to submit a permit application. Civil Charge: $13,000.

Mr. Jim Matthews, Jr., Sussex County - Consent Special Order w/ Civil Charge: Mr. Matthews owns approximately 5.5 acres of property located adjacent to Rt. 301 in Stony Creek, Sussex County, Virginia. The property contains wetlands and an unnamed tributary to Stony Creek. In March 2004, the Department received a report from the U.S. Army Corps of Engineers of unauthorized clearing and filling of approximately 2 acres of wetlands on Mr. Matthews' property. The Department issued a Notice of Violation (NOV) to Mr. Matthews citing failure to obtain a permit for clearing and filling wetlands on his property. In response to the NOV, Mr. Matthews contested the Corps determination of the existence of wetlands on his property. After several site visits and meeting with Mr. Matthews' consultant, the Corps determined that 2.8 acres of wetlands had been impacted at the property. To resolve and mitigate for the unauthorized clearing and filling activities, Mr. Matthews has agreed to restore the impacted wetlands at his property. The Department has approved Mr. Matthews' restoration plan and schedule, which is incorporated into the Order. The order requires that Mr. Matthews restore approximately 2.8 acres of wetlands on his property in Stony Creek, Virginia; and also requires the payment of a civil charge. Civil Charge: $15,000.

Mendleson Development, LLC, Louisa County - Consent Special Order w/ Civil Charge: Mendleson Development, LLC ("Mendleson") owned property known as Links at Lake Anna in Louisa County, Virginia. The undeveloped property is currently owned by Larner Investments who have plans to develop the property into a residential area and golf course known as Cutalong. Mendleson and DEQ entered into a Consent Special Order on March 17, 2006 ("2006 Order") as settlement for Mentleson's alleged unauthorized dredge and fill of surface waters on the Mendleson property. In compliance with the 2006 Order, Mendleson submitted a berm stabilization plan which required plan implementation within 30 days from DEQ approval on May 29, 2006 (i.e. June 29, 2006). The plan should have been completed within 30 days from the implementation date (i.e. July 29, 2006) with monitoring beginning 30 days after the completion date (i.e. August 28, 2006). In addition, any excess material resulting from grading of the site was to be spread on the adjacent property owned by John Null ("Null Property"). On October 23, 2006, DEQ observed activity on the berm of the southern shoreline of Contrary Creek. Upon further inquiry, the operators of the equipment advised DEQ that they were completing the items required by the Order. They were also relocating some of the berm spoils across Contrary Creek to the Mendleson property. DEQ conducted a phone interview with George Petre, a representative of Mendleson, on November 3, 2006. He confirmed that the work required by the Order had just been completed. He was not aware of any notification provided to DEQ regarding the delay. He also confirmed that the excess material was being placed on Mendleson property and not the Null property as required by the Order. Mr. Petre submitted a written follow-up to the phone interview on November 10, 2006. Within the faxed document, he states that labor resources were not available in July 2006 and the work was postponed until September. Rains delayed the work further until the last week of September. The work was completed in the last week of October and the site has been seeded. He did not address the placement of the excess material on Mendleson property. DEQ

conducted a site visit on November 17, 2006 and found that the soil removed from the berm stabilization was placed on Mendleson property instead of the Null property as set forth in the Consent Order. The seed that Mendleson had placed on the berm as part of the berm stabilization had also been washed away during a heavy rainstorm. After observing the condition of the site, DEQ found additional items that needed completion. DEQ provided a list of these items to Mendleson representatives and also incorporated them into Appendix A of the Order. A Notice of Violation ("NOV") was sent to Alan Mendleson on December 12, 2006 for violations of the 2006 Order. Mendleson sent DEQ a response to the NOV dated December 19, 2006 stating that they had begun work on the list of actions provided to them during the site visit. As of the time of this writing, Mendleson has complied with all the items in the Order and is continuing to monitor the site. The Order requires Mendleson to (1) correct damage caused to the berm; (2) stabilize the dredged material; (3) modify and complete the monitoring requirements of the 2006 Order; (4) repair the access road to the site; (5) submit an updated berm stabilization plan. Civil Charge: $8,000.

Stanley Koogler (dairy farm), Rockingham County - Consent Special Order w/Civil Charge: Stanley Koogler operates a dairy farm (75 cows) near Dayton, Virginia. On September 25, 2006, DEQ conducted a complaint investigation and interview with Mr. Koogler, during which staff observed a discharge point where manure had entered the unnamed tributary to Cook's Creek during the previous days. Staff estimated that 100 to 200 gallons of manure had entered the tributary as a result of Mr. Koogler's pumping manure upgradient from the manure storage tank to a mobile applicator tank. On September 27, 2006, DEQ issued a Notice of Violation to Mr. Koogler for an unpermitted discharge and for failure to report the discharge. Mr. Koogler has discontinued the upgradient manure pumping operation and now removes manure from the storage tank at a point adjacent to the tank. The Order assesses a civil charge for the violations. Civil Charge with a Supplemental Environmental Project: $2,340 with $2,106 going to construction of drainage system improvements at the Koogler dairy farm for the purpose of preventing non-point-source sheet flow stormwater from flowing onto the dairy farm sacrifice lot.