TENTATIVE AGENDA
STATE WATER CONTROL BOARD MEETING

FRIDAY, DECEMBER 13, 2019

VIRGINIA CROSSINGS HOTEL AND
CONFERENCE CENTER
1000 VIRGINIA CENTER PARKWAY
GLEN ALLEN, VIRGINIA 23059

Convene – 10:00 a.m.

Agenda Item	Presenter	Tab
Minutes (September 6, 2019)		A B-empty
Eastern Shore Poultry Facilities Groundwater Withdrawal Permits Ish Farm; Thomas Farm; Brady Farm; Van Tran Farm; Morey Farm; Vision Quest; Ed, Pat, and Brandy Sue Farm; Wishart's Point Farm; Trader Farms (E.T. Trader Farm, Jan Trader Farm, Parks Farm; Dennis Farm; Old Mill Farms; Giuse Farm; Chattha Livestock Poultry Farm; Shore Time Poultry, LLC; Tai Dat, LLC; HT Poultry Farm; Peter and Mary Farm; Eagle, Birdie, Superior Farm; Greenes Poultry Farm; Eddie Kelley Farm; Nguyen and Emily Poultry Farm; Elahi LLC; Excel Farm; Tanner Farm; Elite Farm; Mason Farm; RW Farms, LLC; Holland Homestead, Backwoods, and Horsey Poultry Farms; Chicken Bacon Ranch; Fulushou Inc.; Levi's Farm LLC; Last Hurrah LLC; Luu Farm (Spring & Phoenix Farms); Davis Wharf Farm; McChicken Farms; Brittney Poultry Farm, LLC; Miller Time Farm; Turkey Run Farm; Sanns on the Shore Farm; Pixies Poultry; Seaside Poultry Farm; Summer's Rest Farm; Shore Livestock; Teresa Farms	Kudlas	
Board Memorandum, Draft Permit Summary Table and Summary of Comments		C
Draft Permit and Fact Sheet for Sanns on the Shore (includes Alternative Source Special Condition		D
Draft Permit and Fact Sheet for Morey Farm (no Alternative Source Special Condition)		E
Remaining Draft Permits		F
Eastern Shore Poultry Facilities Groundwater Withdrawal Permit - FPNA Farms, Inc. Appearance by Noah M. Sachs, Professor of Law **[Item at 1:00 p.m. or as soon thereafter as possible.]** **[Next 6 items could be considered by the Board at any point during the meeting as time allows]**	Grist	G
Certification Of Nonpoint Source Nutrient Credits - 9VAC25-900 - Regulation Adoption	Davenport/Brockenbrough	H
Water Resources Policy (9VAC25-390) Amendments - Adoption	Porterfield	I
Sewage Treatment in the Dulles Area Watershed (9VAC25-401) Amendments - Adoption	Porterfield	J
Fees for Permits and Certificates (9VAC25-20) Amendments - Fast-Track Adoption	Porterfield	K
General Regulations under State Water Control Law Requirements No. 1 (9VAC25-80) - Repeal - Fast-Track	Porterfield	L
Significant Noncompliance Report		M

Financial Assistance Program Updates	Doran	N
2020 Revolving Loan Fund	Doran	0
Future Meetings		
[Items Below Not Before 1:30 p.m.]		
Division Directors' Report	Schneider/Davenport	
Public Forum (time for this item not to exceed 45 minutes)		
(note: no comment on Draft Special Exception for Chickahominy Power Station - currently pending decision)		

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 on 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 its 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 during the Notice of Public Comment Period on Proposed Regulatory Action (minimum 60-day comment period). Notice of these comment periods is announced in the Virginia Register, by posting to the Department of Environmental Quality and Virginia Regulatory Town Hall web sites 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), 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. In some cases a public hearing is held at the conclusion of the public comment period on a draft permit. In other cases there may an additional comment period during which a public hearing is held.
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 commented during the public comment period on the proposal are allowed up to 3 minutes to respond to the summary of the comments presented to the Board. Adoption of an emergency regulation is a final adoption for the purposes of this policy. Persons are allowed up to 3 minutes to address the Board on the emergency regulation under consideration.

CASE DECISIONS: Comments on pending case decisions at Board meetings are accepted only when the staff initially presents the pending case decision to the Board for final action. At that time the Board will allow up to 5 minutes for the applicant/owner to make his complete presentation on the pending decision, unless the applicant/owner objects to specific conditions of the decision. In that case, the applicant/owner will be allowed up to 15 minutes to make his complete presentation. The Board will then allow others who commented at the public hearing or during the public comment period up to 3 minutes to exercise their rights to respond to the summary of the prior public comment period presented to the Board. No public comment is allowed on case decisions when a FORMAL HEARING is being held.

POOLING MINUTES: Those persons who commented during the public hearing or public comment period 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 commented 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. In the case of 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, the Department may announce an additional public comment period 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 those on the agenda, pending regulatory actions or pending case decisions. Those persons wishing to address the Board during this time should indicate their desire on the sign-in cards/sheet and limit their presentations to 3 minutes or less.

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, 1111 East Main Street, Suite 1400, P.O. Box 1105, Richmond, Virginia 23218, phone (804) 698-4378, fax (804) 698-4346, e-mail: cindy.berndt@deq.virginia.gov.

Additional Meeting Information:

- Attendees are not entitled to be disorderly or disrupt the meeting from proceeding in an orderly, efficient, and effective fashion. Disruptive behavior may result in a recess or removal from the meeting.
- Possession or use of any device that may disrupt the conduct of business is prohibited, including but not limited to: voice-amplification equipment; bullhorns; blow horns; sirens, or other noise-producing devices; as well as signs on sticks, poles or stakes; or helium-filled balloons.
- Attendees shall not block or gather in exits, doors, or aisles.
- All attendees are asked to be respectful of all speakers.
- Rules will be enforced fairly and impartially not only to ensure the efficient and effective conduct of business, but also to ensure no interference with the business of the hotel, its employees and guests.
- All violators are subject to removal.

Approval of 45 Poultry Farm Groundwater Withdrawal Permits, Accomack County: At the September 6, 2019 meeting of the State Water Control Board (Board), the Board will consider the issuance of 45 Groundwater Withdrawal Permits for poultry farms in Accomack County, Virginia. The Board initially saw these facilities as part of a set of 57 Consent Special Orders in September 2018. This memorandum provides a brief background summary of the groundwater withdrawal permitting program, the effort to address groundwater withdrawals from agricultural activities, the draft permits, and comments received during the public notice period and during the public hearing. Finally, a summary of the staff responses to comments is included.

I. BACKGROUND

Groundwater Withdrawal Permitting Program and its Implementation:

The permitting of groundwater withdrawals began in 1973, and in 1978, the Board designated the Eastern Shore Groundwater Management Area. The Ground Water Management Act of 1992 (§ 62.1-254 of the Code of Virginia)

replaced the Groundwater Act of 1973. The current program requires permits for the withdrawal of 300,000 gallons or more in any month.

In accordance with the applicable statutes and regulations, the Department of Environmental Quality (DEQ) evaluates any proposed withdrawal from an aquifer in the Eastern Shore Groundwater Management Area in the context of aquifer pressure. Up to 80% of the aquifer pressure head within an aquifer may be withdrawn for beneficial use as long as such a withdrawal preserves 20% of the aquifer pressure head above each confined aquifer over the long term. Groundwater levels are used as a surrogate for aquifer pressure. DEQ uses a groundwater flow model to evaluate the drawdown of each withdrawal permit application, in conjunction with all other known withdrawals, to determine that water levels will remain above that "critical surface". DEQ models all total permitted withdrawals every day for a 50-year period. In other words, DEQ models the maximum permitted volume of the withdrawal for every proposed and permitted user as if this maximum volume is pumped every day as a constant-rate withdrawal for 50 years into the future. This conservative approach is intended to account for uncertainties in aquifer response to these withdrawals and not having information for every single withdrawal allowed under the regulations. It also provides a level of protection to existing users from potential impacts by evaluating a higher withdrawal than will be seen in reality, i.e. actual operation at maximum levels by all users does not happen in practice. This modeling is a significant part of the Technical Evaluation used for determining whether a particular withdrawal complies with the regulatory standard for protecting the aquifer.

Over its entire period of implementation, the groundwater withdrawal permitting program has been implemented as a "first come, first served" program. The statue and regulations do not provide for the advanced reservation of available supply other than the 20% cushion against aquifer dewatering. This approach embodies the principle that all landowners have a reasonable expectation of using the groundwater under their property. Further, an advance reservation of groundwater for a particular type of use as a priority has not been implemented due to the extensive number of diverse existing users, the absence of specific legislative or regulatory authorities, and the technical and fiscal challenges of such an approach. There is also no requirement expressed in the program authorities that certain users use specific aquifers or part of the aquifer system. In practice, this has meant that a water withdrawal permit with applicable and appropriate permit conditions was typically granted if the water was available from the aquifer requested without resulting in a violation of the 20% critical surface requirement.

In addition to the critical surface requirement, DEQ evaluates reductions to the aquifer pressure and corresponding water levels by simulating an Area of Impact (AOI) which encompasses the area where the proposed withdrawal may reduce the water level by one foot or more. Even very modest withdrawals may have an AOI that extends beyond the boundaries of the property where the proposed withdrawal is located. All withdrawals with an AOI that extends beyond the property line must include a mitigation plan as a condition of their permit that meets or exceeds the boilerplate plan recommended by DEQ. The plan lays out a process designed to establish an even playing field for all parties. The permittee has the rebuttable presumption that they may be the cause of impacts to existing wells using the same aquifer within their AOI. If an existing groundwater user is within the area of impact, there is a rebuttable presumption that the withdrawal caused the impact. Alternatively, if the claimant is NOT in the area of impact, the rebuttable presumption is that the withdrawal did not cause the impact. In addition, there are many things that can go wrong with a well that are not the responsibility of the party making the permitted withdrawal such as a silted screen, substandard well construction, and several types of well pump failures. The potentially impacted party has the burden to provide information regarding their well to show that the well problem they have is not a result of impacts other than the withdrawal by the permittee. Multiple existing permit holders may have mitigation responsibility for any given well.

Special permit conditions to collect site-specific data and analyze any resulting changes in the modeled simulation of each withdrawal are common practice. These data allow for continuous improvement of our understanding of the aquifer system and keep our modeling tools current. New data may also support a future action by DEQ, such as a permit modification.

<u>Addressing Poultry Use on the Eastern Shore:</u>

Poultry farms use groundwater to provide drinking water to their birds as well as to supply water to either misting systems or evaporative cooling pads designed to regulate temperatures in the house and keep the birds cool. Cooling is primarily required in summer.

In response to DEQ's 2017 Compliance Assistance Framework, staff began an outreach effort in the Eastern Shore Groundwater Management Area to identify groundwater users that may meet permit thresholds but did not have a groundwater withdrawal permit. During that effort, 33 poultry farms in Accomack County applied for groundwater withdrawal permits. An additional 51 poultry facilities failed to respond to the original compliance assistance efforts of staff. Of those 51 additional facilities, 23 were determined by DEQ staff to need a groundwater withdrawal permit to operate.

On September 20, 2018, the State Water Control Board approved Consent Special Orders (CSO) for 57 poultry facilities currently operating without groundwater withdrawal permits in Accomack County. One of the orders was terminated as it was issued to a facility that received a separate order under a different name and therefore was a duplicate. Two of the 56 facilities were able to document use below 300,000 gallons a month and will not require a groundwater withdrawal permit. The remaining 54 facilities submitted groundwater withdrawal permit applications by October 1, 2018, as required by the CSO.

The applications were reviewed and technical evaluations were completed on all 54 facilities. Staff prepared draft permits based on these evaluations.

Of the 54 facilities with draft permits, 49 agreed to proceed with the advertisement of a public notice of their draft permit on May 24, 2019 in the Eastern Shore Post. Five facilities did not advertise a public notice, and staff notified them in writing of the requirements of the CSO and the ability to withdraw their individual permit applications. To date, none of the five facilities has responded to the written notice. Due to the lack of response by these five facilities, these draft permits are not included in the recommended Board action. In addition, four of the 49 facilities failed to install the proper meters and comply with the CSO reporting requirements. Staff is proceeding with written notice of our intent to consider denial of these applications as well. Since the NOVs have not been addressed to DEQ's satisfaction, these draft permits are not included in the recommended Board action.

II. DRAFT PERMITS

Today, staff is recommending that the Board take action on 45 draft permits. The draft permits consist of three parts. Part I, Operating Conditions, establishes withdrawal limits and reporting requirements, identifies the specific wells authorized by the permit, provides pump intake limits to protect the aquifer, establishes requirements related to the Water Conservation and Management Plan (WCMP), and where required, incorporates a Mitigation Plan into the permit. Mitigation plans are required for any facility for which the technical evaluation documents an area of impact that extends beyond the property boundaries. Of the 45 draft permits, 41 include a requirement for a mitigation plan. All of the draft permits include a WCMP.

Part II, Special Conditions, includes facility specific special conditions that are included based on results of the application review and technical evaluation. These include the following requirements: collection of geophysical logs (34 of 45 permits include this condition), determination and reset of pump intakes (34 of 45 permits), flow through meter installation and verification (45 of 45 permits), camera surveys to identify undocumented well construction (12 of 45 permits), water quality monitoring (4 of 45 permits), and alternative source investigations (26 of 45 permits).

The technical evaluations indicated that each of the proposed withdrawals meet the criteria laid out in 9VAC25-610-110.D. The model simulations did not result in a drawdown of the water levels below a point 80% of the distance between the land surface and the top of the aquifer. For four of the farms along the coast, the evaluations did indicate the potential to impact water quality via saltwater intrusion, which resulted in special conditions for water quality monitoring in the permits for those farms.

All wells associated with the 45 facilities are screened in the confined aquifers comprised of the Upper, Middle, and Lower Yorktown-Eastover aquifer, and the aquifer pressure head met the criteria specified in the regulations. In order to determine the viability of the surficial aquifer to supply water to any of the poultry farms in the future, and to determine what portions of the use it can supply (drinking water or cooling water or both), site-specific data will be necessary. Withdrawals from the surficial aquifer have the potential to present water quality challenges in the form of iron forming bacteria and increased vulnerability to surface contaminants, and drinking water for poultry must be of higher quality than the cooling water. However, prudent management of the groundwater system compels a more thorough investigation of

alternative sources of supply for some facilities. There are four facilities that modeling indicates will result in local changes to chloride concentrations by as much as 90 milligrams/liter. In addition, 22 facilities are within the two largest cones of depression[1] within the aquifer system created by the two poultry processing plants. Based on current permitted withdrawal with all of these proposed poultry facilities, while still compliant with the regulatory criteria, water levels under each processing plant are expected to be within tens of feet of the critical surface by the end of the 50-year modeling period. Over the long term, the withdrawals from these 22 facilities have the potential to expand the overall impact of these cones of depression. Special conditions require alternative source investigations for these 26 farms to assess the capacity and quality of the surficial aquifer to serve as a groundwater source.

Part III, General Conditions, is standardized and included in all groundwater withdrawal permits. This section includes conditions that identify broad duties of the permittee to comply, to cease or confine activity, to mitigate, and to provide information, as well as general requirements for metering and equipment standards, monitoring and record maintenance, and new well construction. Part III also provides the process and requirements for minor and major modifications, as well as for permit reopening and permit renewals. This section is the same for all 45 draft permits.

Please see Facility Index for a summary of the particular limits and special conditions that are included in each draft permit. The differences in draft permit conditions are the result of unique circumstances related to specific site conditions or aquifer response, or unique facility operations or conditions. The Facility Index does include the four facilities (highlighted in yellow in a separate table below the others) that did advertise the public notice on May 24, 2019 and were presented at the public hearings but are not included in today's recommendation. Exclusion of these four facilities in the index would not substantially lower the estimated combined withdrawal of 390.2 million gallons annually, or combined average of 1.07 million gallons per day.

III. PUBLIC NOTICE, HEARINGS, AND COMMENTS

Because of significant public interest in the draft permits, staff recommended holding three public hearings noticed concurrently with the public notices for the 49 draft permits. On April 2, 2019, the Director granted the requested hearings. The Eastern Shore Post published notices for each of the 49 draft permits and notification of three public hearings on May 24, 2019. The three hearings were held on the following dates: 1) June 24, 2019 at Arcadia High School in Accomack County, 2) June 25, 2019 at Eastern Shore Community College in Accomack County, and 3) June 26, 2019 at Northampton High School in Northampton County. Ms. Jasinski was the hearing officer for the first hearing and Mr. Wayland was the hearing officer for the second hearing. DEQ staff convened the third public hearing. During the hearings, 18 speakers provided comments. The written comment period concluded on July 12, 2019. Staff received 57 written comments. A summary of the comments and staff responses is provided below.

IV. SUMMARY OF PUBLIC COMMENTS AND DEQ STAFF RESPONSES

Generally, the oral and written comments received fall into the following categories:

1) comments about the use of potential alternative sources, including the surficial water table (Columbia) aquifer;
2) comments about the hydrogeology and the technical evaluation process;
3) comments about the mitigation plan process, including potential environmental justice issues; and
4) miscellaneous comments.

PUBLIC NOTICE, HEARINGS, AND COMMENTS

Because of significant public interest in the draft permits, staff recommended holding three public hearings noticed concurrently with the public notices for the 49 draft permits. On April 2, 2019, the Director granted the requested hearings. Public notices for each of the 49 draft permits including notification of three public hearings were published in the Eastern Shore Post on May 24, 2019. The three hearings were held on the following dates: 1) June 24, 2019 at Arcadia High School in Accomack County presided by Hearing Officer Paula Jasinski, member of the State Water Control Board, 2) June 25, 2019 at Eastern Shore Community College in Accomack County presided by Hearing

[1] A cone of depression occurs in an aquifer when groundwater is pumped from a well. In an unconfined surficial aquifer, this is an actual depression of the water levels. In confined aquifers, the cone of depression is a reduction in the pressure head surrounding the pumped well.

Officer Robert H. Wayland, III of the State Water Control Board, and 3) June 26, 2019 at Northampton High School in Northampton County presided by Hearing Officer Scott Kudlas of the Department of Environmental Quality. During the hearings, 18 speakers provided comments. The written comment period concluded on July 12, 2019. Staff received fifty-seven written comments. A summary of the comments and staff responses is provided below.

Alternate Water Sources of Supply

Comment 1: Water recycling should be analyzed and considered as an option to supplement groundwater use (e.g. collecting rainwater runoff from poultry house roofs, integrating the wastewater treatment system in Onancock to recharge the aquifer).

Response 1: *Thank you for your comment. Poultry farms do use recirculation of water in the cooling systems. The systems rely on evaporative cooling where water is run over an element to cool the air that is pushed through by fans. Water that is not absorbed by the element or by the air returns to a trough to be recirculated. This process greatly reduces water use for the cooling systems versus a system that does not recirculate. Strict quality requirements limit to some extent the means of water recycling discussed in the comment. The intent of water conservation plans required by the draft permits is to improve the efficiency, over the permit term, of water use. Rooftop rainwater collection would require significant storage but may warrant further evaluation as a supplement to groundwater. Aquifer recharge using surface water or treated wastewater is outside of the purview of this permitting effort and the program as a whole as it is overseen by the U.S. Environmental Protection Agency rather than DEQ.*

Comment 2: All poultry permits should require early permit term testing of the Columbia aquifer and all poultry permittees should be required to use the Columbia aquifer if the water quality and quantity are deemed sufficient, especially for cooling mechanisms. Options other than the Yorktown-Eastover aquifer that is needed for current and future Eastern Shore residents should be used by the poultry facilities.

Response 2: *Thank you for your comment. All facilities currently comply with the regulatory criteria as submitted. However, prudent management of the groundwater system compels a more thorough site specific investigation of alternative sources of supply for some facilities. Investigation of the Columbia aquifer is included as a special condition in permits for 26 farms where multiple Areas of Impact (AOI's) within a single aquifer overlap with the largest cones of depression and/or where the potential for reduced water quality from saltwater intrusion is indicated in the Technical Evaluation. The investigation due dates for an alternative aquifer source vary, by facility, from two to six years from the permit issuance date. This schedule was designed to allow DEQ staff to be present with the well driller for the collection of this site specific information and prioritizes the facilities staff thinks will have the most benefit to sustainable aquifer management. DEQ will evaluate the results of the investigations and permits may be reopened to address the findings. 9VAC25-610-310.B.1 provides the Department the authority to reopen and modify any permit when new information becomes available about the groundwater withdrawal covered by the permit, or the impact of the withdrawal, which was not available at permit issuance and would have justified the application of different conditions at the time of issuance.*

Comment 3: Criteria for the water quality and quantity of Columbia aquifer use need to be explained and made accessible to the public.

Response 3: *Thank you for your comment. Decisions about the yield and quality of the groundwater within the Columbia aquifer are site specific. These determinations are best made case-by-case based on the specific hydrogeologic data and operation at each farm.*

Comment 4: There are concerns about the impacts of Brittany Poultry Farm (GW0077800) and Tanner's Place (GW0073700) seeing as they are adjacent facilities. It is requested that they both be required to utilize the Columbia aquifer for their cooling mechanisms.

Response 4: *Thank you for your comment. The Columbia aquifer may be a viable alternative for these poultry farms. However, decisions about the yield and quality of the groundwater within the surficial aquifer are site specific. These determinations are best made case-by-case based on the specific hydrogeologic data and operation at each farm. The draft permits for Brittany Poultry Farm (GW0077800) and Tanner Farm (GW0073700) each include a special condition*

requiring a site specific investigation of the Columbia aquifer, including: collection of geophysical information and construction of a test well to evaluate both water quality and capacity. 9VAC25-610-310.B.1 provides the Department the authority to reopen and modify any permit when new information becomes available about the groundwater withdrawal covered by the permit, or the impact of the withdrawal, which was not available at permit issuance and would have justified the application of different conditions at the time of issuance. Once investigations of the Columbia aquifer are complete and reviewed, DEQ may reopen the permits should new data support such an action.

Comment 5: Due to a residence with a well downstream, and in close proximity to, Chattha Farm (GW0073100), it is requested that this facility utilizes the Columbia aquifer for its cooling mechanisms. Since this facility has previously been out of compliance, it should be monitored more closely than the requirements outlined in its draft permit.

Response 5: *Thank you for your comment. The Columbia aquifer may be a viable alternative for this poultry farm. However, decisions about the yield and quality of the groundwater within the Columbia aquifer are site specific. These determinations are best made case-by-case based on the specific hydrogeologic data and operation at each farm. The draft permit for Chattha Farm (GW0073100) does include a special condition requiring a site specific investigation of the Columbia aquifer, including: collection of geophysical information and construction of a test well to evaluate both water quality and capacity. 9VAC25-610-310.B.1 provides the Department the authority to reopen and modify any permit when new information becomes available about the groundwater withdrawal covered by the permit, or the impact of the withdrawal, which was not available at permit issuance and would have justified the application of different conditions at the time of issuance. Once investigations of the Columbia aquifer are complete and reviewed, DEQ may reopen the permits should new data support such an action. As with all facilities, Chattha Farm will be inspected by DEQ to ensure compliance with the groundwater withdrawal permit, should it be issued. DEQ uses a risk-based inspection process and each facility's compliance history will factor into how often the facility is inspected.*

Comment 6: The process of re-opening a permit to include the use of the Columbia aquifer (where applicable) should be officially written out and explained. Is an official request required? How formal/informal is this process?

Response 6: *Decisions about the yield and quality of the groundwater within the Columbia aquifer are site specific. These determinations are best made case-by-case based on the specific hydrogeologic data and operation at each farm. 9VAC25-610-310.B.1 provides the department the authority to reopen and modify any permit when new information becomes available about the groundwater withdrawal covered by the permit, or the impact of the withdrawal, which was not available at permit issuance and would have justified the application of different conditions at the time of issuance. Once investigations of the Columbia aquifer are complete and reviewed, DEQ may reopen the permits should new data support such an action.*

Comment 7: There is concern about the cost impacts associated with certain special conditions required for farmers. Due to this cost burden, it is requested that the deadline for meeting these conditions (e.g. test wells and geophysical boreholes) is extended to three years.

Response 7: *Thank you for your comment. GW-2 (Uniform Water Well Completion Reports) and geophysical logs are required by regulation. Facilities that lacked site-specific GW-2 (Uniform Water Well Completion Reports) and geophysical logs were prioritized to obtain this information for evaluation earlier in the permit term. The alternative source investigations required for some facilities provide necessary data to evaluate the viability of the Columbia aquifer and collection of this data during the first third of the permit term is a priority of the Department. Due dates range from two to six years after the permit issuance date. This schedule was designed to allow DEQ staff to be present with the well driller for the collection of this site specific information.*

Comment 8: Since all current applicants are farmers with existing wells, they should not be required to build new wells unless cost-share incentives are made available to complete these requirements.

Response 8: *Thank you for your comment. No draft groundwater withdrawal permit specifically requires new wells to be built. Twenty-six of the 45 draft permits have requirements to conduct alternative source investigations. These investigations may result in requirements for a facility to utilize the Columbia aquifer, at which time the applicant could request a modification to the permit or DEQ could reopen the permit per 9VAC25-610-310.B.1 to require installation of new wells. DEQ is not aware of any cost-share incentives available for construction of new wells.*

Comment 9: It is requested that DEQ remove Section K under general conditions for any permittees that are not requesting or required to build additional wells (or include language that this condition only applies to the installation of new wells).

Response 9: *Thank you for your comment. Section K is included within the General Conditions section of the permit that is included in all groundwater withdrawal permits. Section K covers requirements associated with any new well construction and must be included in the permit to cover any unforeseen or prospective well construction (such as a well replacement for a failed well or a new well) that may happen during the permit term. Section K does not require any new wells to be constructed.*

Comment 10: Groundwater withdrawal data and test well data should be made available to the public in a timely manner.

Response 10: *Thank you for your comment. All groundwater withdrawal data and test well data is freely available to the public in accordance with the Freedom of Information Act (FOIA). Staff processes requests for such information in a timely manner in compliance with FOIA requirements.*

Hydrogeology and Technical Evaluation Process

Comment 11: How much water is in the Yorktown-Eastover aquifer and what is the aquifer recharge rate. How do the Chesapeake Bay and Atlantic Ocean impact the Yorktown-Eastover aquifers water quantity and quality?

Response 11: *Thank you for your comment. It is not physically possible to directly measure the volume of groundwater within the Eastern Shore Aquifer System. The complex relationships between rainfall, estimated recharge aquifer pressure head, aquifer response to groundwater withdrawal, and groundwater sustainability cannot be reduced to a single metric. All efforts to quantify recharge are estimates and must be evaluated within the context of the assumptions used to derive them. To represent these interactions and evaluate site-specific and long-term impacts, DEQ uses the Eastern Shore Groundwater Flow Model. The model simulates the transition zone between the aquifer, the Atlantic Ocean, and the Chesapeake Bay. While this transition zone is generally at equilibrium, changes in quantity occur over decades and centuries while water quality changes from lateral intrusion occur generally over centuries and geologic time scales.*

Comment 12: The total daily consumption of the Yorktown-Eastover Aquifer is already near it's recharge rate. Why is DEQ planning to issue the permits if negative impacts are expected? The number of permits should be limited to conserve the groundwater resources on the Eastern Shore and permits should be issued incrementally rather than all at once in order to prevent negative impacts.

Response 12: *Thank you for your comment. Based on our technical evaluations DEQ does not expect impacts beyond what is specified as acceptable in the groundwater withdrawal regulations. 9VAC25-610-110.D.3.h requires DEQ to complete a technical evaluation of the proposed withdrawal to "demonstrate that the stabilized effects from the proposed withdrawal in combination with the stabilized combined effects of all existing lawful withdrawals will not lower water levels, in any confined aquifer that the withdrawal impacts, below a point that represents 80% of the distance between the land surface and the top of the aquifer". The technical evaluations showed limited drawdown from the proposed withdrawals that comply with all regulatory requirements. In no case were critical cells (areas where water levels are modeled to fall below the 80% criteria discussed above) created.*

Comment 13: The effect lowering the Yorktown-Eastover aquifer will have on Northampton is unknown. There is little knowledge about lateral movement of groundwater. There is also a concern about potential salt water intrusion. The modeling should also include a risk analysis on the effects of climate change.

Response 13: *Thank you for your comment. The interrelationship between withdrawals and aquifer response is complex. This complexity is why models are necessary to evaluate groundwater withdrawals individually and cumulatively. While DEQ has a high degree of confidence in the predictive ability of the model based on information collected by both DEQ and the U.S. Geological Survey from groundwater monitoring wells throughout the Eastern Shore, it is correct that all models have differing levels of uncertainty. DEQ is using a systematic approach to identify*

areas of model and scientific uncertainty and is systematically addressing them through ongoing model maintenance and basic research with the U.S. Geological Survey. The modeling assumptions used by DEQ is very conservative in a number of ways. The modeling uses the maximum permitted amount every day over a 50-year simulation period for the proposed withdrawal and all other permitted withdrawals. The modeling includes nearly all of the potential drawdown affects from the withdrawal that will occur prior to reaching equilibrium with the aquifer system. In general, climate change is not expected to significantly affect confined groundwater systems except from changes to recharge rates and from surficial aquifer chloride contamination resulting from repeated inundation events. Climate models are consistently predicting that in the Mid-Atlantic, from Virginia and further north, there will be increases in precipitation. This increase in precipitation will likely increase recharge rates. Lateral salt water intrusion from increased hydrostatic pressure associated with sea level rise is not expected to change the fundamental rates of change within the confined aquifer system.

Comment 14: How is water prioritized during drought conditions and what recourse do Eastern Shore Residents have during drought conditions.

Response 14: *Thank you for your comment. DEQ does not anticipate impacts associated with drought within the confined Yorktown-Eastover aquifers. While there is the potential to increase pumping during drought, the maximum pumping is still limited by the permit and the Areas of Impact (AOIs) evaluated represent the maximum withdrawal allowed. The probability of drought impacts on the surficial or Columbia aquifer is far more likely.*

Comment 15: If each Area of Impact circle represents 50 years of groundwater depletion, what is the result if multiple overlap? Does this accelerate the depletion process? (A specific example of concern was the Van Tran (GW0075400) and Guise (GW0075800) farms.)

Response 15: *Thank you for your comment. The Area of Impact (AOI) represents the maximum area where the groundwater level will be drawn down by 1 foot if the pumping remains at the maximum withdrawal level. Using a 50-year simulation captures 97% of the impact that would be expected to come from that withdrawal before it reaches equilibrium with the aquifer system. Any impacts from overlapping cones of depression are accounted for since the modeling also evaluates the cumulative impact of all of the poultry withdrawals in conjunction with all existing known withdrawals.*

Comment 16: Why were different calculation methods for withdrawal limits done for some facilities (for example Van Tran (GW0075400) and Guise (GW0075800)). Calculations and explanations should be written out and provided to the public. Methods of calculation for withdrawal limits should be more standardized. All withdrawals being considered are currently based on estimates and actual meter data should be reviewed by DEQ.

Response 16: *Thank you for your comment. Water use estimates were provided in each application with calculations showing how the estimates were used to derive the requested limits. These calculation sheets were included in the draft permit packages for public review. More than one acceptable way was available to applicants to estimate their requested withdrawal amounts. The two most common methods are the use of actual metered data (or partial record metered data), and the use of data from a comparable facility (farm). Given the limited availability of recorded metered data specific to these farms for both poultry water consumption (drinking water) and water used in the cooling systems, a combination of a standard specified method and the use of partial record metered data and comparable facilities was used. DEQ worked with stakeholders and academic experts in this field to develop a process to estimate cooling water use based on house size. This standardized method was used for each farm to estimate cooling water use. For drinking water use, some meter data existed, and applicants and consultants used drinking water use records for either the applicant's farm or a similar farm to estimate drinking water need. While water use could reasonably be expected to be similar among poultry farms of similar size, it is clear from the meter data received to date, that water use does in fact differ from farm to farm depending on operation, type and stocking density of birds, type and age of equipment installed in the poultry houses, and other operating factors. It is common to use estimates when meter data is not initially available. Over the course of a permit term, more data is collected and will be considered in reviewing the permitted withdrawal amounts at the time of permit reissuance or during the permit term on a case-by-case basis using the reopener clause included in each groundwater withdrawal permit.*

Comment 17: What opportunities are there to re-examine and re-open permits based on results of monitoring and water usage? Would this occur on a case-by-case basis or require a request?

Response 17: *Thank you for your comment. All groundwater withdrawal permits include reopener clauses that allow the permit to be reopened by DEQ. 9VAC25-610-310.B.1 provides the Department the authority to reopen and modify any permit when new information becomes available about the groundwater withdrawal covered by the permit, or the impact of the withdrawal, which was not available at permit issuance and would have justified the application of different conditions at the time of issuance. DEQ regularly reviews withdrawal reporting for each permit to identify cases where withdrawal limits may be too high. Decisions regarding whether to reopen and adjust permit limits are made in accordance with the regulations and on a case-by-case basis.*

Comment 18: Based on projections, several growers are only using about 70% of their proposed permitted amount. Farmers are not the integrators, and are contracted out as a growing commodity. Farmers are working toward environmental efficiency with the use of updated temperature control methods and water recycling.

Response 18: *Thank you for your comment. Groundwater withdrawal permits are developed based on the reasonably anticipated need as documented in the permit application. All groundwater withdrawal permits include reopener clauses that allow the permit to be reopened by DEQ. DEQ regularly reviews withdrawal reporting for each permit to identify cases where withdrawal limits may be too high. Decisions regarding whether to reopen and adjust permit limits are made in accordance with the regulations and on a case-by-case basis.*

<u>Mitigation Plans (includes environmental justice analysis)</u>

Comment 19: The mitigation plans do not provide enough protection for residents and small businesses. What is DEQ's role in the mitigation process? These plans should be revisited to include potable water being provided within 12 hours rather than 72 hours, and a neutral mitigation panel should be created to handle these processes.

Response 19: *Requirements for mitigation plans are set forth in the Groundwater Withdrawal Regulations under 9VAC25-610-110.D.3.g. The mitigation plans establish a process that allows permittees and other well users to address issues without further involvement from DEQ. While DEQ does not monitor or track claims under mitigation plans, the Hampton Roads Planning District Commission does for permittees in their member localities. There were 24 claims since 1994 and no claim since 2009. DEQ created, consistent with the applicable regulations, a standard mitigation plan process used in the program for over 25 years. The boilerplate mitigation plan is provided to all applicants whose Area of Impact (AOI) extends beyond the property boundary where the wells are located. Of the 45 applicants, 41 required mitigation plans. The draft permits for all 41 facilities used the boilerplate mitigation plan without modification and therefore the plans, incorporated by reference in the draft permits, meet the regulatory requirements. In situations where there is a loss of potable supply (public and private) the local health department and emergency management personnel are immediately involved in addressing the potable water need.*

Comment 21: The language in the mitigation plan does not make sense. In para. 3, the 2nd sentence says, "Due to these findings. Van Tran recognizes that there will be a rebuttable presumption that water level declines that cause adverse impacts to existing groundwater users within the area of impact are due to this withdrawal." However, the next sentence says "... however, there is a rebuttable presumption that Van Tran/Tran Farm has not caused the adverse impact." Please clarify.

Response 21: *The full text of that portion of the plan is provided as follows: "Due to these findings, Van Tran recognizes that there will be a rebuttable presumption that water level declines that cause adverse impacts to existing groundwater users within the Area of Impact are due to this withdrawal. Claims may be made by groundwater users outside this area; however, there is a rebuttable presumption that Van Tran / Tran Farm has not caused the adverse impact." These two sentences provide the basis under which a rebuttable presumption can be made according to the plan. If an existing groundwater user is within the area of impact, there is a rebuttable presumption that the withdrawal caused the impact. Alternatively, if the claimant is NOT in the area of impact, the rebuttable presumption is that the withdrawal did not cause the impact. In addition, there are many things that can go wrong with a well that are not the responsibility of the party making the permitted withdrawal such as a silted screen, substandard well construction, and several types of well*

pump failures. Multiple existing permit holders already have mitigation responsibility for wells referenced by the commenter.

Comment 22: A special condition should be included in the permits that requires a "Well Arbitration Agreement" to be initiated. This is to offer protection to landowners within a facility's Area of Impact. The details of this Well Arbitration agreement are listed as follows: 1) Applicant agrees to pay for hydrologist or well driller chosen by the homeowner to establish a baseline of a potentially affected well. 2) A copy of these results go to the applicant, homeowner, and county clerk. 3) If a claimant says their water use has been impacted negatively, the applicant/permittee will pay for a well investigation conducted by a hydrologist/well driller chosen by the claimant. 4) If the investigation concludes that there was a negative water impact, the applicant/permittee will provide potable water for drinking (bottled water) and washing/flushing (tanker water). 5) If the investigation concludes that there was a negative water impact, the applicant/permittee will pay for remediation actions (deepening well, relocation of well, lowering of screen, etc.).

Response 22: *Requirements for mitigation plans are set forth in the Groundwater Withdrawal Regulations under 9VAC25-610-110.D.3.g. The proposed "Well Arbitration Agreement" appears to address the same issues that the Mitigation Plan is intended to address. Multiple existing permit holders already have mitigation responsibility for wells referenced by the commenter. In circumstances where parties are not in agreement over potential impacts, mitigation plans do include the provision for a committee of three experts (professional engineers, hydrogeologist, or similar experience/expertise) to resolve such disagreements. This panel is composed of a groundwater/technical representative for the permittee, a representative for the claimant, and one mutually agreed upon representative. The panel provides a pathway to resolve disagreements based on technical analysis.*

Comment 23: All landowners within an Area of Impact should be given written notification (in English and Spanish) by DEQ, at the expense of the applicant, within four weeks of permit approval. This notification should include DEQ contact information and an explanation of a mitigation response program. Why hasn't DEQ already taken these actions as a part of the permitting process?

Response 23: *Thank you for your comment. 9VAC25-610-250 of the Groundwater Withdrawal Regulations set forth the public notice requirements for issuance of a groundwater withdrawal permit. These requirements include publishing a public notice at the applicant's expense in a newspaper of general circulation in the area. DEQ's efforts to keep the citizens of the Eastern Shore informed of the agency process and progress have exceeded the regulatory requirements for processing permit applications. DEQ held multiple public information meetings and public hearings in three locations on the Eastern Shore to provide the greatest possible opportunity for citizens to stay informed and participate in the process. In addition, over the last two years, there has been substantial media coverage of the consent orders and these permits. There have been more than two dozen news stories in print, television, and on radio on the issue.*

Comment 24: The requirement of an applicant to notify all landowners within their respective Area of Impact would be inappropriate, as it is not authorized by current regulations.

Response 24: *Thank you for your comment. 9VAC25-610-250 of the Groundwater Withdrawal Regulations set forth the public notice requirements for issuance of a groundwater withdrawal permit. DEQ complied with all state and regulatory requirements for public notice and comment.*

Comment 25: Will there be a depletion of property value as a result of the Areas of Impact that will occur as a result of poultry operations? Does DEQ take this into consideration?

Response 25: *Thank you for your comment. DEQ does not take impact on property value into consideration as it is outside our regulatory authority.*

Comment 26: An Environmental Justice Analysis should be done on all poultry facilities in this permit term.

Response 26: *The State Water Control Law, The Ground Water Management Act of 1992, and the Groundwater Withdrawal Regulations were established and designed to conserve, protect and beneficially utilize groundwater of the Commonwealth to ensure the public welfare, safety and health for all people. The draft poultry farm permits will ensure*

compliance with these groundwater laws and regulations to protect the public welfare, safety and health for the residents of the Eastern Shore.

DEQ does not choose the locations of these facilities or approve the zoning that allows these facilities to be constructed. DEQ does review the withdrawals and determines whether the proposed aquifer can accommodate the withdrawal without violating the regulatory water level standards. DEQ also ensures that each permit with an Area of Impact that extends beyond the property on which the well is located includes a mitigation plan that ensures that adverse impacts to existing groundwater users is included as a condition of each permit. Pursuant to 9VAC25-610-110 D 3 g. approvable plans must include the following:

> *(1) The rebuttable presumption that water level declines that cause adverse impacts to existing wells within the area of impact are due to the proposed withdrawal;*
>
> *(2) A commitment by the applicant to mitigate undisputed adverse impacts due to the proposed withdrawal in a timely fashion;*
>
> *(3) A speedy, nonexclusive, low-cost process to fairly resolve disputed claims for mitigation between the applicant and any claimant; and*
>
> *(4) The requirement that the claimant provide documentation that he is the owner of the well; documentation that the well was constructed and operated prior to the initiation of the applicant's withdrawal; the depth of the well, the pump, and screens and any other construction information that the claimant possesses; the location of the well with enough specificity that it can be located in the field; the historic yield of the well, if available; historic water levels for the well, if available; and the reasons the claimant believes that the applicant's withdrawals have caused an adverse impact on the well.*

All of the draft permits whose areas of impact extend beyond the boundaries of the farm property include mitigation plans that meet these requirements.

Executive Order 29 was issued by Governor Northam and established the Virginia Council on Environmental Justice. This executive order indicates environmental justice is "the fair treatment and meaningful involvement of all people regardless of race, color, faith, national origin, or income, in the development, implementation, and enforcement of environmental laws, regulations, and policies." In April 2019, DEQ issued an Unsealed Request for Proposal for a qualified external consultant to conduct an environmental justice study for the agency. Through this URFP, research will be conducted to identify options and recommendations for DEQ in order to develop a strategic approach focused on environmental justice issues.

DEQ's efforts to keep all the citizens of the Eastern Shore informed of the agency process and progress have exceeded the regulatory requirements for processing permit applications. DEQ held multiple public information meetings and public hearings in three locations on the Eastern Shore to provide the greatest possible opportunity for citizens to stay informed and participate in the process. In addition, over the last two years, there has been substantial media coverage of the consent orders and these draft permits. There have been more than two dozen news stories in print, television, and on radio on the issue.

Finally, DEQ does not regulate individual private wells and their construction. Prior to 2015, DEQ did not have the authority to require registration of individual private wells and was unable to collect information on the construction of these wells in Groundwater Management Areas. Without information on the depth of each well, the aquifer it withdraws from, the depth of the screen and pump, modeling cannot determine the probability of an adverse impact with certainty.

Miscellaneous Comments

Comment 27: DEQ should provide a complete account of all poultry operations on the Eastern Shore, and explain why the number of facilities during this permit term fell from 84 in 2017 to 56 in 2018.

Response 27: *Thank you for your comment. DEQ provided a complete account in June at the three public hearings held on the Eastern Shore. In 2017, DEQ began an outreach effort in the Groundwater Management Areas to identify groundwater users that may meet permit thresholds but do not yet have a permit. During that effort, 33 poultry farms applied for groundwater withdrawal permits. An additional 51 poultry farms were contacted by DEQ and 23 of those farms were identified as potentially requiring a permit. On September 20, 2018, the State Water Control Board approved consent orders for 57 facilities, including the original 33 facilities and the additional 23 identified by DEQ. One of the orders was terminated as it was issued to a facility that received a separate order under a different name and therefore was a duplicate. Two of the remaining 56 facilities were able to document use below 300,000 gallons a month and will not require a groundwater withdrawal permit. The remaining 54 facilities submitted Groundwater Withdrawal Permit applications by October 1, 2018, as required by the orders. Of those 54 poultry farms, 49 chose to proceed with the publication of a public notice of the draft permit while five poultry farms chose not to proceed with the publication of a public notice. The facilities choosing not to proceed with the publication of a public notice did so because either recent metered data indicated use below the permit threshold, or the facilities are ceasing operations, and DEQ is pursuing a final action with these facilities to terminate the draft permits developed under the consent special order.*

Comment 28: The permitting process for these poultry operations should have been completed before the wells were built. All future groundwater permits should be drafted before the well construction begins.

Response 28: *Thank you for your comment. As provided in 9VAC25-610-94, the groundwater permit application process requires a completed well construction report for all existing wells associated with the application on the Water Well Completion Form (GW2). The regulation also provides that other relevant information may be required for application evaluation (for example, planned well construction).*

Comment 29: DEQ's lack of penalties imposed on those facilities in violation of the compliance and permitting processes has resulted in little leverage and precedent moving forward. DEQ should no longer offer reprieve to poultry facilities that are out of compliance

Response 29: *Thank you for your comment. DEQ's enforcement mission is to apply a consistent response that returns a responsible party to compliance in an expeditious and equitable manner. DEQ follows a graduated enforcement approach to bring parties into compliance. Using the resources available, DEQ initiated a number of compliance/enforcement initiatives to address various unpermitted impacts to the groundwater resource over the last several years. Given the large number of parties identified as part of this agricultural sector initiative, the Consent Special Order was the most expeditious and equitable means to protect the resource. Failure to comply with the terms of the consent special orders or permits (should they be issued) will result in further enforcement actions with the potential for civil penalties.*

Comment 30: What is the estimated quantity of agricultural water use (other than the poultry facilities currently undergoing the permitting process)? Do other agricultural facilities also have to apply for groundwater permits?

Response 30: *Thank you for your comment. Any groundwater user that withdraws 300,000 gallons or more in any month, including agricultural users, in a designated groundwater management area must apply for a Groundwater Withdrawal Permit. DEQ has issued Groundwater Withdrawal permits to numerous other agricultural uses. For example, groundwater withdrawals reported for agricultural uses for livestock on the Eastern Shore in 2018 equaled 40.62 million gallons. Actual reported use is expected to be lower than the total permitted volume as most permittees use less than their permitted amounts. Total permitted water use for agricultural facilities (not including the poultry farms covered in the proposed draft permits) across the entire Eastern Shore is approximately 1.5 billion gallons per year, or approximately 4.23 million gallons per day. Any facility that does not withdraw 300,000 gallons or more in any month, is excluded from the requirements of a Groundwater Withdrawal Permit as provided by 9VAC25-610-50.*

Comment 31: Permits for the poultry farms should be renewed every five years rather than 15 years due to potential climate change impacts.

Response 31: *Thank you for your comment. Groundwater Withdrawal Permit terms are set by § 62.1-266 of the Code of Virginia to a period not to exceed 15 years. The common permit term is 15 years unless there is a compelling reason related to uncertainties in the evaluation or groundwater availability. There is general scientific consensus that climate*

change may impact the hydrostatic boundary of the aquifer system at geologic time scale (i.e. thousands of years). The most likely climate change impacts associated with sea level rise is an impact to the surficial aquifer water quality due to deposition of salt water from related inundation events. This salt water will eventually migrate to lower aquifers over geologic time scales.

Comment 32: The board should approve all permits as drafted, and utilize this process as an educational tool for managing future agricultural operations.

Response 32: *Thank you for your comment.*

Comment 33: It is requested that DEQ create standardized guidance and associated forms for poultry farming reporting requirements (i.e. water withdrawal reporting, water conservation, leak detection and repair, monitoring, etc.).

Response 33: *Thank you for your comment. A standardized boilerplate reporting form provided by DEQ is already in use for groundwater withdrawal reporting. However, DEQ recognizes additional guidance and training on the proper completion of this form may be beneficial.*

Comment 34: DEQ needs to update its software for withdrawal report submissions.

Response 34: *Thank you for your comment. Development of an online reporting tool is currently in the pilot/testing stage, and DEQ expects to make the option to report online available in the future.*

Comment 35: It is DEQ's duty to protect future water resources by the enforcement of sensible regulations.

Response 35: *Thank you for your comment.*

Comment 36: A local farmer should be included as a member of the State Water Control Board as a means of fairness and adequate representation during these proceedings.

Response 36: *Thank you for your comment. The Governor appoints members of the State Water Control Board consistent with the qualifications established in State Water Control Law (§ 62.1-44.2 et seq. of the Code of Virginia).*

Comment 37: The Department should have an active role in preventing the release of inadequately treated wastewater. What are the current regulations and reporting requirements for wastewater disposal? Does wastewater contamination risk increase in proportion to the original withdrawal amount?

Response 37: *Thank you for your comment. The beneficial use for the requested groundwater is for use in on-demand watering of individual birds and for use in cooling systems with very minor amounts for general cleaning. Wastewater is not generally produced as a result of these activities. While the Department does have a role in management of runoff associated with poultry farms, this takes the form of dry waste/litter, which is separately administered through the Office of Land Application Programs.*

ID # 41 has been pulled from the list of permits to be considered

DEQ

Department of Environmental Quality
Draft Groundwater Withdrawal Permit Facility Index

ID #	Permit Number	Farm Name	Owner/ Organization	Annual Withdrawal Limit (gallons)	Monthly Withdrawal Limit (gallons)	Approximate Radius of Area of Impact in Yorktown-Eastover Aquifer (in feet)			Permit Specific Special and Operating Conditions Included in Draft Permit						
						Upper	Middle	Lower	Geophysical Log	Pump Depth Determination	Well Construction Verification	Water Quality Monitoring	Well Abandonment	Alternative Source Investigations	Mitigation Plan
1	GW0072500	Ish Farm	Ish Farms, LLC	11,500,000	2,700,000	No impact	5280	5808	Yes	Yes	No	No	No	Yes	Yes
2	GW0072600	Brady Farm	Ryan Brady	9,900,000	2,700,000	5280	No impact	No impact	Yes	Yes	No	No	No	No	Yes
3	GW0072700	Morey Farm	Andrew Morey	8,800,000	2,300,000	2112	1056	5280	Yes	Yes	No	No	No	No	Yes
4	GW0072800	Ed, Pat, and Brandy Sue Farm	Edward Thornton	8,000,000	1,800,000	No impact	2112	1584	Yes	Yes	Yes	No	No	Yes	Yes
5	GW0072900	Trader Farms	E.T. Trader	9,500,000	1,600,000	No impact	5808	5280	Yes	Yes	Yes	No	No	No	Yes
6	GW0073000	Old Mill Farms	William Lovell	12,000,000	3,100,000	3168	2112	No impact	Yes	Yes	No	No	No	Yes	Yes
7	GW0073100	Chattha Farm	Mohammad Afzal Chattha	9,400,000	2,600,000	5280	5280	5280	Yes	Yes	No	No	No	Yes	Yes
9	GW0073300	HT Poultry Farm	Hieu H. Le	5,700,000	1,600,000	No impact	2640	No impact	No	No	No	No	No	No	Yes
10	GW0073400	Eagle Birdie Superior Farm	Tri Minh Tran	5,600,000	1,500,000	No impact	No impact	2112	Yes	Yes	Yes	No	No	Yes	Yes
11	GW0073500	Eddie Kelley Farm	Horace E. Kelley	11,900,000	3,000,000	2112	No impact	No impact	Yes	Yes	No	No	No	No	Yes
12	GW0073600	Elahi LLC	Iqbal Mohammad	6,700,000	1,600,000	No impact	No impact	2460	Yes	Yes	No	No	No	Yes	Yes
13	GW0073700	Tanner Farm	Goodman Poultry Farms, LLC	8,000,000	2,500,000	1584	3168	1584	No	No	No	No	No	Yes	Yes
14	GW0073800	Mason Farm	Hai Van Tran & Dan T. Nguyen	7,500,000	2,000,000	3168	3696	3168	Yes	Yes	No	No	No	Yes	Yes
15	GW0073900	Holland Farms	Tull, LLC	5,600,000	1,500,000	2640	No impact	No impact	Yes	Yes	Yes	No	No	Yes	Yes
16	GW0074000	Chicken Bacon Ranch	Jessica L. Thomas	4,600,000	1,100,000	No impact	1470	No impact	Yes	Yes	No	No	No	No	Yes
18	GW0074200	Last Hurrah Farm	Last Hurrah LLC	11,300,000	3,100,000	No impact	5808	5808	No	No	No	No	No	Yes	Yes
19	GW0074300	Levi Farm LLC	Levi's Farm, LLC	7,500,000	2,000,000	No impact	No impact	3696	Yes	Yes	No	No	No	Yes	Yes
20	GW0074400	Luu Farm	Dan V Luu	10,600,000	3,300,000	1584	No impact	No impact	Yes	Yes	Yes	No	No	No	Yes
21	GW0074500	McChicken Farms	McChicken Farms LLC	10,000,000	2,500,000	3696	4752	6336	No	No	No	Yes	No	Yes	Yes
22	GW0074600	Miller Time Farm	Miller Time, LLC	7,600,000	2,100,000	280	1300	No impact	No	No	No	No	No	Yes	Yes
23	GW0074700	Sanns of the Shore Farm	Sanns Farm, LLC	14,500,000	3,300,000	No impact	3168	4224	Yes	Yes	No	Yes	No	Yes	Yes

ID #	Permit Number	Farm Name	Owner/ Organization	Annual Withdrawal Limit (gallons)	Monthly Withdrawal Limit (gallons)	Approximate Radius of Area of Impact in Yorktown-Eastover Aquifer (in feet)			Permit Specific Special and Operating Conditions Included in Draft Permit						
						Upper	Middle	Lower	Geophysical Log	Pump Depth Determination	Well Construction Verification	Water Quality Monitoring	Well Abandonment	Alternative Source Investigations	Mitigation Plan
24	GW0074900	Seaside Farm	Le Ung	10,000,000	2,500,000	No impact	No impact	No impact	No	No	No	No	No	No	No
25	GW0075000	Shore Livestock	Ali Razwan	9,000,000	2,200,000	No impact	1584	No impact	Yes	Yes	No	No	No	No	Yes
27	GW0075300	Thomas Farm	Thomas Family Farm LLC	4,100,000	1,100,000	No impact	1450	No impact	Yes	Yes	No	No	No	No	Yes
28	GW0075400	Van Tran Farm	Van T. Tran	19,400,000	4,400,000	7920	7920	7920	No	No	No	No	No	Yes	Yes
29	GW0075500	Vision Quest Farm	Vision Quest Enterprises, LLC	7,600,000	2,100,000	3880	No impact	No impact	Yes	Yes	No	No	No	Yes	Yes
30	GW0075600	Wishart's Point Farm	Nickolas J. Thomas	3,900,000	1,000,000	No impact	65	No impact	Yes	Yes	No	No	No	No	No
31	GW0075700	Dennis Farm	Dennis Farm, LLC	16,800,000	3,900,000	No impact	3168	2112	No	No	No	No	No	Yes	Yes
32	GW0075800	Giuse Farm	Hoai An Tran	11,300,000	3,000,000	4224	4224	4224	Yes	Yes	No	No	No	Yes	Yes
33	GW0075900	Shore Time Poultry Farm	Shore Time Poultry LLC	15,000,000	3,800,000	3696	4752	4224	Yes	Yes	No	Yes	No	Yes	Yes
34	GW0076000	Tai Dat Farm	Danny Huynh	9,400,000	2,500,000	No impact	No impact	3696	Yes	Yes	No	No	No	Yes	Yes
35	GW0076300	Peter and Mary Farm	Hop Van Nguyen	3,300,000	900,000	115	No impact	No impact	Yes	Yes	Yes	No	No	No	No
36	GW0076400	Nguyen and Emily Farm	Hop Van Nguyen	3,200,000	800,000	No impact	No impact	2640	Yes	Yes	Yes	No	No	Yes	Yes
37	GW0076600	Greene's Poultry Farm	Phillip Greene	7,600,000	2,100,000	No impact	No impact	3696	No	No	No	No	No	Yes	Yes
38	GW0076700	Excel Farm	Tri Minh Tran	3,700,000	900,000	1056	510	1584	Yes	Yes	Yes	No	No	No	Yes
39	GW0076800	Elite Farm	Tri Minh Tran	4,500,000	1,100,000	1320	150	2112	Yes	Yes	Yes	No	No	No	Yes
40	GW0076900	RW & Mathews Farms	Ronnie and Barbara Matthews	3,000,000	700,000	No impact	150	No impact	Yes	Yes	No	No	No	No	Yes
41	GW0077000	Justice Poultry Farm, Inc.	James Justice	2,400,000	600,000	840	870	1584	Yes	Yes	Yes	No	No	No	Yes
42	GW0077300	Fulushou Inc.	Hein Tran	9,100,000	3,800,000	No impact	2112	4752	Yes	Yes	Yes	No	No	Yes	Yes
44	GW0077600	Davis Wharf Farm	Kenneth Blair	4,500,000	1,000,000	No impact	710	No impact	Yes	Yes	Yes	No	No	No	Yes
45	GW0077800	Brittany Poultry Farm LLC	Brittany Poultry Farm LLC	5,700,000	1,600,000	No impact	2112	No impact	Yes	Yes	No	Yes	No	Yes	Yes
46	GW0077900	Turkey Run Farm	Son Nguyen	9,700,000	2,800,000	No impact	2112	No impact	No	No	No	No	No	Yes	Yes

ID #	Permit Number	Farm Name	Owner/ Organization	Annual Withdrawal Limit (gallons)	Monthly Withdrawal Limit (gallons)	Approximate Radius of Area of Impact in Yorktown-Eastover Aquifer (in feet)			Permit Specific Special and Operating Conditions Included in Draft Permit						
						Upper	Middle	Lower	Geophysical Log	Pump Depth Determination	Well Construction Verification	Water Quality Monitoring	Well Abandonment	Alternative Source Investigations	Mitigation Plan
47	GW0078100	Pixies Poultry	Burke Palmer Booth	3,400,000	820,000	No impact	130	No impact	Yes	Yes	No	No	No	No	No
48	GW0078400	Summers Rest Farm	Tyler Ames	10,000,000	2,500,000	4224	4752	4752	Yes	Yes	No	No	No	Yes	Yes
49	GW0078500	Teresa Farm	Teresa Farms, LLC	12,900,000	2,900,000	2112	No impact	No impact	No	No	No	No	No	No	Yes
								TOTALS	34	34	12	4	0	26	41

POULTRY FACILITY APPLICATIONS PENDING APPLICATION DENIAL PROCEEDINGS

ID #	Permit Number	Farm Name	Owner/ Organization	Annual Withdrawal Limit (gallons)	Monthly Withdrawal Limit (gallons)	Approximate Radius of Area of Impact in Yorktown-Eastover Aquifer (in feet)			Permit Specific Special and Operating Conditions Included in Draft Permit						
						Upper	Middle	Lower	Geophysical Log	Pump Depth Determination	Well Construction Verification	Water Quality Monitoring	Well Abandonment	Alternative Source Investigations	Mitigation Plan
8	GW0073200	Contrell Brown & Son Farm	Contrell Brown	2,600,000	700,000	1050	90	No impact	Yes	Yes	Yes	No	No	No	Yes
17	GW0074100	FPNA Farm	FPNA Farms Inc.	3,900,000	1,000,000	740	No impact	No impact	Yes	Yes	Yes	No	No	No	Yes
26	GW0075200	Spuddog Farm	Spuddog Farm Properties LLC	5,200,000	1,300,000	No impact	40	No impact	Yes	Yes	No	No	No	No	No
43	GW0077400	Rogers Farm	Antonio Rogers	2,800,000	800,000	400	No impact	No impact	Yes	Yes	Yes	No	No	No	Yes

Approval of FPNA Farms, Inc. Groundwater Withdrawal Permit, Accomack County: At the December 13, 2019 meeting of the State Water Control Board (Board), the Board will consider the issuance of a Groundwater Withdrawal Permit for FPNA Farms, Inc. in Accomack County, Virginia. The Board initially saw this facility as part of a set of 57 Consent Special Orders in September 2018. However, this facility received a Notice of Violation on April 26, 2019 and was not included in original permit approval request for 45 other poultry facilities provided for the September 6, 2019 Board meeting.

This memorandum provides a brief background summary of the groundwater withdrawal permitting program, the effort to address groundwater withdrawals from agricultural activities, the Notice of Violation issued to FPNA Farms Inc., draft permit for FPNA Farms Inc., and comments received during the public notice period and during the public hearing. Finally, a summary of the staff responses to comments is included.

I. BACKGROUND

Groundwater Withdrawal Permitting Program and its Implementation:

The permitting of groundwater withdrawals began in 1973, and in 1978, the Board designated the Eastern Shore Groundwater Management Area. The Ground Water Management Act of 1992 (§ 62.1-254 of the Code of Virginia) replaced the Groundwater Act of 1973. The current program requires permits for the withdrawal of 300,000 gallons or more in any month.

In accordance with the applicable statutes and regulations, the Department of Environmental Quality (DEQ) evaluates any proposed withdrawal from an aquifer in the Eastern Shore Groundwater Management Area in the context of aquifer pressure. Up to 80% of the aquifer pressure head within an aquifer may be withdrawn for beneficial use as long as such a withdrawal preserves 20% of the aquifer pressure head above each confined aquifer over the long term. Groundwater levels are used as a surrogate for aquifer pressure. DEQ uses a groundwater flow model to evaluate the drawdown of each withdrawal permit application, in conjunction with all other known withdrawals, to determine that water levels will remain above that "critical surface". DEQ models all total permitted withdrawals every day for a 50-year period. In other words, DEQ models the maximum permitted volume of the withdrawal for every proposed and permitted user as if this maximum volume is pumped every day as a constant-rate withdrawal for 50 years into the future. This conservative approach is intended to account for uncertainties in aquifer response to these withdrawals and not having information for every single withdrawal allowed under the regulations. It also provides a level of protection to existing users from potential impacts by evaluating a higher withdrawal than will be seen in reality, i.e. actual operation at maximum levels by all users does not happen in practice. This modeling is a significant part of the Technical Evaluation used for determining whether a particular withdrawal complies with the regulatory standard for protecting the aquifer.

Over its entire period of implementation, the groundwater withdrawal permitting program has been implemented as a "first come, first served" program. The statue and regulations do not provide for the advanced reservation of available supply other than the 20% cushion against aquifer dewatering. This approach embodies the principle that all landowners have a reasonable expectation of using the groundwater under their property. Further, an advance reservation of groundwater for a particular type of use as a priority has not been implemented due to the extensive number of diverse existing users, the absence of specific legislative or regulatory authorities, and the technical and fiscal challenges of such an approach. There is also no requirement expressed in the program authorities that certain users use specific aquifers or part of the aquifer system. In practice, this has meant that a water withdrawal permit with applicable and appropriate permit conditions was typically granted if the water was available from the aquifer requested without resulting in a violation of the 20% critical surface requirement.

In addition to the critical surface requirement, DEQ evaluates reductions to the aquifer pressure and corresponding water levels by simulating an Area of Impact (AOI) which encompasses the area where the proposed withdrawal may reduce the water level by one foot or more. Even very modest withdrawals may have an AOI that extends beyond the boundaries of the property where the proposed withdrawal is located. All withdrawals with an AOI that extends beyond the property line must include a mitigation plan as a condition of their permit that meets or exceeds the boilerplate plan recommended by DEQ. The plan lays out a process designed to establish an even playing field for all parties. The permittee has the rebuttable presumption that they may be the cause of impacts to existing wells using the same aquifer within their AOI. If an existing groundwater user is within the area of impact, there is a rebuttable presumption that the withdrawal caused

the impact. Alternatively, if the claimant is NOT in the area of impact, the rebuttable presumption is that the withdrawal did not cause the impact. In addition, there are many things that can go wrong with a well that are not the responsibility of the party making the permitted withdrawal such as a silted screen, substandard well construction, and several types of well pump failures. The potentially impacted party has the burden to provide information regarding their well to show that the well problem they have is not a result of impacts other than the withdrawal by the permittee. Multiple existing permit holders may have mitigation responsibility for any given well.

Special permit conditions to collect site-specific data and analyze any resulting changes in the modeled simulation of each withdrawal are common practice. These data allow for continuous improvement of our understanding of the aquifer system and keep our modeling tools current. New data may also support a future action by DEQ, such as a permit modification.

Addressing Poultry Use on the Eastern Shore:

Poultry farms use groundwater to provide drinking water to their birds as well as to supply water to either misting systems or evaporative cooling pads designed to regulate temperatures in the house and keep the birds cool. Cooling is primarily required in summer.

In response to DEQ's 2017 Compliance Assistance Framework, staff began an outreach effort in the Eastern Shore Groundwater Management Area to identify groundwater users that may meet permit thresholds but did not have a groundwater withdrawal permit. During that effort, 33 poultry farms in Accomack County applied for groundwater withdrawal permits. An additional 51 poultry facilities failed to respond to the original compliance assistance efforts of staff. Of those 51 additional facilities, 23 were determined by DEQ staff to need a groundwater withdrawal permit to operate.

On September 20, 2018, the State Water Control Board approved Consent Special Orders (CSO) for 57 poultry facilities currently operating without groundwater withdrawal permits in Accomack County. One of the orders was terminated as it was issued to a facility that received a separate order under a different name and therefore was a duplicate. Two of the 56 facilities were able to document use below 300,000 gallons a month and will not require a groundwater withdrawal permit. The remaining 54 facilities submitted groundwater withdrawal permit applications by October 1, 2018, as required by the CSO.

The applications were reviewed and technical evaluations were completed on all 54 facilities. Staff prepared draft permits based on these evaluations.

Of the 54 facilities with draft permits, 49 agreed to proceed with the advertisement of a public notice of their draft permit on May 24, 2019 in the Eastern Shore Post. Five facilities did not advertise a public notice, and staff notified those facilities in writing of the requirements of the CSO and the ability to withdraw their individual permit applications. To date, all five facilities have submitted requests to withdraw their groundwater permit application and letters were issued terminating the each facility CSO.

In addition, four of the 49 facilities failed to install the proper meters and comply with the CSO reporting requirements. FPNA Farms Inc. was one of the four facilities identified. On April 26, 2019, a Notice of Violation was issued for violations of the Groundwater Management Act of 1992 (§ 62.1-254 of the Code of Virginia), Groundwater Withdrawal Regulations (9VAC25-610) and the CSO issued September 21, 2018. The Notice of Violation noted that FPNA Farms Inc. had failed to install inline totalizing flow meters to read gallons, cubic feet, or cubic meters by no later than October 1, 2018. On August 1, 2019, Department staff conducted a compliance review and observed that FPNA Farms Inc. had not complied with the Notice of Violation and had failed to report quarterly monthly water withdrawals, both requirements of the CSO. On August 9, 2019, DEQ issued a Letter of Intent to deny the draft Groundwater Withdrawal Permit for FPNA Farms Inc. unless the applicant either withdrew the application or documented to the satisfaction of the Water Withdrawal Permitting and Compliance Manager complete compliance with all provisions of the Consent Special order no later than September 9, 2019 and signed an agreement to delay the final decision on the draft permit application until the Board meeting in December 2019. FPNA Farms Inc. did comply with the requirements specified in the August 9, 2019 letter for presentation to the Board today. The remaining three facilities that received NOVs in

April 26, 2019, did not did not satisfy the requirements specified in the August 9, 2019 letter to DEQ's satisfaction, and those draft permits are not included in the recommended Board action.

II. DRAFT PERMITS

Today, staff is recommending that the Board take action on the draft permit for FPNA Farms Inc. The draft permit consist of three parts. Part I, Operating Conditions, establishes withdrawal limits and reporting requirements, identifies the specific wells authorized by the permit, provides pump intake limits to protect the aquifer, establishes requirements related to the Water Conservation and Management Plan (WCMP), and where required, incorporates a Mitigation Plan into the permit. Mitigation plans are required for any facility for which the technical evaluation documents an area of impact that extends beyond the property boundaries. The FPNA Farm Inc. draft permit includes a requirement for a mitigation plan and a WCMP.

Part II, Special Conditions, includes facility specific special conditions that are included based on results of the application review and technical evaluation. The following special conditions are required of FPNA Farms Inc.: collection of geophysical logs, determination and reset of pump intakes, flow through meter installation and verification, and camera surveys to identify undocumented well construction.

The technical evaluation indicated that the proposed withdrawals by FPNA Farms Inc. meets the criteria laid out in 9VAC25-610-110.D. The model simulations did not result in a drawdown of the water levels below a point 80% of the distance between the land surface and the top of the aquifer. The evaluation for FPNA Farms Inc. did not indicate the potential to impact water quality via saltwater intrusion. All wells associated with FPNA Farms Inc. are screened in the Upper Yorktown-Eastover aquifer, and the aquifer pressure head met the criteria specified in the regulations.

Part III, General Conditions, is standardized and included in all groundwater withdrawal permits. This section includes conditions that identify broad duties of the permittee to comply, to cease or confine activity, to mitigate, and to provide information, as well as general requirements for metering and equipment standards, monitoring and record maintenance, and new well construction. Part III also provides the process and requirements for minor and major modifications, as well as for permit reopening and permit renewals. This section is the same for all draft groundwater withdrawal permits.

Please see below for a summary of the particular limits and special conditions that are included in each draft permit. The differences in draft permit conditions are the result of unique circumstances related to specific site conditions or aquifer response, or unique facility operations or conditions. The list does include four facilities (highlighted in yellow in a separate table below the others) that did advertise the public notice on May 24, 2019 and were presented at the public hearings. FPNA Farms Inc. is highlighted, and is included for today's recommendation. Three other facilities are not included in today's recommendation for failure to comply with the CSO and respond to a NOV. Exclusion of these three facilities below would not substantially lower the estimated combined withdrawal of 390.2 million gallons annually, or combined average of 1.07 million gallons per day, as shown below.

III. PUBLIC NOTICE, HEARINGS, AND COMMENTS

Because of significant public interest in the draft permits, staff recommended holding three public hearings noticed concurrently with the public notices for 49 draft permits, to include FPNA Farms Inc.. On April 2, 2019, the Director granted the requested hearings. The Eastern Shore Post published notices for each of the 49 draft permits and notification of three public hearings on May 24, 2019. The three hearings were held on the following dates: 1) June 24, 2019 at Arcadia High School in Accomack County, 2) June 25, 2019 at Eastern Shore Community College in Accomack County, and 3) June 26, 2019 at Northampton High School in Northampton County. Ms. Jasinski was the hearing officer for the first hearing and Mr. Wayland was the hearing officer for the second hearing. DEQ staff convened the third public hearing. During the hearings, 18 speakers provided comments. The written comment period concluded on July 12, 2019. Staff received 57 written comments. See the comment summary for the Eastern Shore Poultry permits.

Certification of Nonpoint Source Nutrient Credits, 9VAC25-900 Final Regulation: The final regulation, Certification of Nonpoint Source Nutrient Credits (9VAC25-900), is presented to the Board for your consideration for

adoption. The DEQ developed this new regulation as required pursuant to § 62.1-44.19:20 of the State Water Control Law. The regulation establishes the process for the certification of nonpoint source nitrogen and phosphorus nutrient credits. Nonpoint source nutrient credits must be certified by the DEQ prior to placement on the Virginia nutrient credit registry for exchange. Credits generated from agricultural and urban stormwater best management practices, management of animal feeding operations, land use conversion, stream or wetlands restoration, and other established or innovative methods of nutrient control or removal may be certified for exchange under this regulation.

As background information, the following is a brief summary of the timeline for this regulatory action:

- On September 9, 2012, the Department of Conservation and Recreation (DCR) had the Notice of Intended Regulatory Action published in the Virginia Register.
- DCR convened a Regulatory Advisory Panel (RAP) to assist with the development of this regulation in November of 2012.
- On July 1, 2013, the authorities for this regulation were transferred from DCR to the Board. The original RAP process was completed in October 2013.
- The Board approved the proposed regulation for public comment on December 17, 2013. The proposed regulation was published in the Virginia Register on December 29, 2014 and the comment period for the proposed regulation closed on March 16, 2015 with 295 people submitting comments.
- Based on the public comments, it was decided to reconvene the RAP to focus on particular issues requiring substantive changes to the regulation. These issues included adding requirements for stream or wetland restoration projects, innovative projects, limits for term credits and changes necessary for permanent credits. A revised proposed regulation was developed through this reconvened RAP process; however, there were still issues of non-consensus regarding various aspects of the regulations such as local water quality requirements, management area over which baseline requirements apply, credit release schedules, and requirements for Municipal Separate Storm Sewer System (MS4) permittees wanting to generate nutrient credits.
- The Board approved the revised proposed regulation for public comment on July 19, 2017. The revised proposed regulation was published on April 15, 2019 and the comment period closed on May 30, 2019.

Twelve commenters submitted over 50 comments in response to the public notice for the revised proposed regulation. Comments received ranged from support for the regulation or specific aspects of the regulation to requests to either eliminate the regulation or reconvene the RAP for further deliberations. A summary of the comments received is provided below. Significant comments and the agency's response include the following:

1. Local Water Quality (9VAC25-900-90 D).

Section 90 D of the regulation includes provisions designed to protect local water quality by restricting the acquisition of credits for projects located above locally impaired water bodies. For projects located above waters with an approved TMDL for nutrients that is more stringent than the Chesapeake Bay TMDL, any credits must be acquired upstream of where the discharge reaches impaired waters. A similar provision is included for the exchange of credits in the Southern River watersheds subject to a TMDL. In waters with a local impairment that may be due to nutrients or a local impairment that is due to nutrients but the specific wasteload allocations and load allocations necessary to restore the stream have not been developed, the acquisition of credits is subject to a hierarchy in which the credit must be acquired upstream of the discharge if available. If credits are not available upstream, they must be acquired from hydrologic units located as close to the impairment as available.

Comment Summary: Comments were received regarding restrictions on the exchange of credits upstream of locally impaired water bodies. The comments ranged from a request to eliminate all specific provisions in Section 90 regarding the exchange of credits upstream of impaired waters to requests for further restrictions on the exchange of credits in areas with certain water quality impairments. In the event that the trading restrictions in Section 90 were not removed, alternative provisions restricting the applicability of the restrictions were also proposed. Comments addressed whether it is appropriate to include trading restrictions in a regulation focusing on the certification of nutrient credits and the water quality impact of the nutrient trading program. Comments were also received requesting that existing nutrient banks be grandfathered from the local water quality provisions in Section 90.

Response: The DEQ considered the comments. No requirements were changed based on comment but clarifying format edits were made to the provisions for the exchange of credits. Additionally, in the agency background document for the revised proposed regulation, comment on adding chlorophyll-a to the list of impairments was

requested. No comment was submitted regarding this addition; therefore, chlorophyll-a has been added to the list of impairment types subject to the hierarchy established in Subdivision 90 D 2 c.

DEQ believes that the treatment of local water quality in 9VAC25-900-90 is consistent with the provisions in the State Water Control Law. In drafting the local water quality provisions in 9VAC25-900-90, DEQ has balanced the need to protect local water as required by § 62.1-44.19:20 B 7 and § 62.1-44.15:35 C of the statute and other provisions of the State Water Control Law allowing for the use of water quality trading. In order to meet the statutory requirements of protecting water quality, Subdivision 90 D 2 of the regulation includes restrictions on the exchange of nutrient credits upstream of locally impaired waters.

VA Code § 62.1-44.19:20 B establishes minimum requirements for the contents of the proposed regulation. Specifically, § 62.1-44.19:20 B 7 requires that the regulation "Provide that the option to acquire nutrient credits for compliance purposes shall not eliminate any requirements to comply with local water quality requirements". § 62.1-44.19:20 B requires that the proposed regulations shall "Provide such other requirements as the Board deems necessary and appropriate."

VA Code § 62.1-44.15:35.C establishes limits on the use of nutrient credits to meet post development water quality design criteria under the Virginia Stormwater Management Program. It states that "…No applicant shall use nutrient credits or other offsite options in contravention of local water quality-based limitations (i) determined pursuant to subsection B of § 62.1-44.19:14, (ii) adopted pursuant to § 62.1-44.15:33 or other applicable authority, (iii) deemed necessary to protect public water supplies from demonstrated adverse nutrient impacts, or (iv) as otherwise may be established or approved by the Board…."

It should be noted that local water quality requirements or limitations can be established in response to water quality impairments. A water quality impairment means that a particular stream does not support its applicable designated use. There are six designated uses that may be applied to surface waters: aquatic life, fish consumption, shellfishing, recreation, public water supply and wildlife. In addition to the designated uses, Virginia's water quality standards include numeric criteria for physical and chemical water quality that are used to assess whether the designated uses are supported. If a waterbody contains more of a pollutant than is allowed by the numeric water quality criteria, or is below a specified threshold for the aquatic life use assessment, it will not support one or more of its designated uses. Such waters are considered to have impaired quality.

In considering Subdivision 90 D 2 of the regulation it is important to note that this provision is intended to further protect local water quality for trades involving nonpoint source nutrient credits. In addition to trades under the Virginia Stormwater Management Program, § 62.1-44.19:21 also authorizes the use of nonpoint source credits by Municipal Separate Storm Sewer Systems (MS4s), confined animal feeding operations subject to a VPDES permit and facilities registered under the industrial stormwater general permit. However, the vast majority of nonpoint source nutrient credits purchased in Virginia are used to meet the post development water quality design criteria for new development or redevelopment.

The design criteria in 9VAC25-870-63 are most often administered by local Virginia Stormwater Management Program authorities and these authorities often seek interpretation of the local water quality provisions included in § 62.1-44.15:35.C. The existing code and regulatory provisions lack specificity as to how to interpret the local water provisions.

The decision of how to protect water quality upstream of existing impaired waters usually has to be made without the benefit of an intensive, site-specific stream study. The post development water quality design criteria for new development or redevelopment included in 9VAC25-870-63 are intended to protect local water quality yet they were not developed on a site-specific basis. Furthermore, § 62.1-44.15:35 provides for the use of nutrient credits to meet the criteria under certain conditions. However the use of nutrient credits upstream of local water quality impairments that may be due to nutrients (or are due to nutrients but for which a TMDL has not been developed) creates the risk of additional degradation of an already impaired stream.

DEQ has considered the provisions in both the State Water Control Law and the Virginia Stormwater Management Program Regulation (9VAC25-870) and developed criteria in Subdivision 90 D 2 of the regulation to consistently

interpret and apply the local water quality provisions in the Code. The Board's authority to adopt such requirements is provided in § 62.1-44.19:20.B(ix) and § 62.1-44.15:35.C(iii) of the State Water Control Law.

2. Municipal Separate Storm Sewer Systems (MS4) (9VAC25-900-10 and 100)
The revised proposed regulation included a new baseline provision requiring that MS4 localities generating nutrient credits for exchange must first meet the level of nutrient reduction required by any Watershed Implementation Plan (WIP) or approved TMDL, whichever is more stringent, across the entire MS4 service area.

Comment Summary: Comments were received requesting that the requirement to meet WIP or TMDL requirements across their entire MS4 service area be eliminated through modifications to the definitions of "Management area" in 9VAC25-900-10 and the baseline requirements in 9VAC25-900-100. The main concern was that provisions in the proposed regulation limited the ability of MS4s to generate credits that could be used for economic development or to finance additional nutrient reductions. In the event that the MS4 wide baseline requirement was not eliminated, the commenters requested that the provision be clarified to only apply to credit generating practices developed within the MS4 service area and that the definition of "MS4 service area" in 9VAC25-900-10 be modified to accurately capture Phase I MS4 permits.

Response: The DEQ has considered the comments. Requiring that MS4 localities meet their baseline WIP or TMDL reductions throughout their entire MS4 service area is appropriate since any regulated entity should be required to meet applicable regulatory or permit driven nutrient reduction requirements prior to generating credits. The same criterion is applied to permitted animal feeding operations under 9VAC25-900-100.C.1 of the proposed regulation. DEQ agrees that the MS4 baseline requirement should not apply to projects developed by an MS4 locality but located outside of the MS4 service area. In response to this concern modifications to the "management area" definition have been made to distinguish between projects developed by MS4 entities inside vs. outside of the MS4 service area. The baseline requirement in 9VAC25-900-100.D.4 was also clarified to indicate that it only applies to the generation of nutrient credits by MS4 permittees within the MS4 service area. The accounting requirement in 9VAC25-900-100.D.4 was also clarified to indicate that it applies to the exchange of any credits generated by an MS4 permittee and not just those created or exchanged outside of the MS4 service area. The definition of "MS4 service area" was also revised to accurately address Phase I MS4 permittees.

3. Release of Credits (9VAC25-900-90 B)
Comment Summary: During the revised proposed regulation's comment period, some commenters requested that land conversion projects be provided an option to post financial assurance in order to have 100% of the credits released upon certification.

Response: The DEQ has considered these comments and is deliberately moving away from the current practice of releasing 100% of credits with the posting of financial assurance. DEQ does not have the resources to evaluate and track the financial assurance instruments for nearly 200 banks (the vast majority of which have to be renewed annually) or to contract/oversee the process when mechanisms must be cashed in to reestablish a failed planting. By staging the release of nutrient credits, the agency is putting the onus of demonstrating success of the planting back on the bank sponsor rather than DEQ staff. DEQ has researched timelines for establishing planting success criteria in other programs and proposed a release schedule that is not particularly onerous. However, in response to concerns expressed with being able to encourage investment and get credits to the market in a timely manner, DEQ has modified the release schedule to allow for an additional 25% release of credits upon planting. This is on top of the initial 25% release upon certification of the project and recording of the deed restriction. The final 50% of credits will not be released until success of the planting is demonstrated. The modified schedule provides a fair phased release of credits generated by land conversion projects, places the onus for demonstrating success on the bank sponsor and alleviates the burdensome oversight associated with managing financial assurance.

In the notice for the revised proposed regulation DEQ solicited comments on the addition of an alternative release schedule for mixed specie plantings. No comments were received on this topic and an additional provision allowing for credit release for mixed specie plantings after the first complete growing season has been added to 9VAC25-900-120 C 2 to encourage the planting higher quality forests.

4. Management Area Definition - non-MS4 comments (9VAC25-900-10)

Comment Summary: During the revised proposed regulation's comment period, comments were received again requesting that the definition of the management area be limited to only the area on which the nutrient credit generating practice is located.

Response: The DEQ has considered these comments once again. The main purpose of the definition for management area is to define the area over which baseline practices are to be implemented prior to the generation of credits. The DEQ maintains that baseline practices should be applied to all contiguous properties under common ownership. Requiring the implementation of baseline management practices throughout the management area ensures a level playing field for participants in the trading program and helps achieve the Chesapeake Bay Program's nonpoint source reduction goals

5. Provide a Public Comment Process (9VAC25-900-80)
Comment Summary: During the revised proposed regulation's comment period, it was again requested that Section 80's public notification requirements be changed to a public comment process in order to provide additional transparency and provide the right to challenge a certification of nutrient credits under the APA.

Response: The DEQ has considered these comments again. The requirement for public notification of a proposed non-point nutrient credit generating facility is stipulated in the authorizing legislation (see Subdivision B.1.g of § 62.1-44.19:20 of the SWCL). Therefore, the regulations include a provision for public notification. However, in cases where the DEQ decides that additional public involvement would be useful for the review and processing of the certification application, the DEQ may still utilize an informal public comment period without requiring a formal public comment process for all nutrient credit certification applications which may unnecessarily complicate and extend the process for every application. The notice requirements have been revised to provide additional details including DEQ contact information.

Please note that of the five major comment topics summarized above, only the MS4 baseline requirement was subject to significant changes in the revised proposed regulation. The remaining four topics were all areas on which the Regulatory Advisory Panel was unable to reach consensus prior to the original proposal. Most of these same comments were addressed with the Board at the original proposal stage in 2013.

The final regulation includes application procedures, baseline requirements, credit calculation procedures, release and registration of credits, compliance and reporting requirements for nutrient credit-generating projects, enforcement requirements, application fees, and financial assurance requirements. Based on public comment on the revised proposed regulation, changes were made to clarify the baseline requirements for MS4 localities that choose to generate nutrient credits, to revise the schedule for the phased release of credits generated by land conversion projects, and to add miscellaneous minor changes provided in the revised proposed regulation's agency background document. Grammatical and clarification changes have also been made. These changes are consistent with the requirements outlined in § 62.1-44.19:20 of the State Water Control Law. Further details on the changes made to the final regulation are provided in the *Detail of Changes Made Since the Previous Stage* section of the Town Hall document, TH-03.

At your meeting on December 13, 2019, the DEQ will request that the Board adopt the final regulation, 9VAC25-900.

Response to Comments on the Revised Proposed Regulation for the Certification of Non-Point Source Nutrient Credits, 9VAC25-900

#	Commenter	Comment	Recommended Change	Response
WK-1	Whitney S. Katchmark, PE HRPDC	1. The MS4 baseline requirement must be clarified. As written, 9 VAC 25-900-100.D.4 could apply to projects inside or outside of the MS4 service area. This must be clarified to reflect that baseline conditions must be met within the MS4 service area. The use of the term baseline is also used interchangeably to refer to individual projects as well as requirements for TMDL compliance.	We support the following modifications to 9 VAC 25-900-100.D.4: No credits may be certified for ~~For~~ a nutrient credit-generating project owned by an MS4 permittee and located within the permittee's MS4 service area until, ~~baseline shall only be achieved when~~ the level of nutrient reduction required by the WIP or approved TMDL, whichever is more stringent, is achieved for the entire MS4 service area. MS4 permittees generating credits for exchange from projects located outside the MS4 service area shall have an accounting system demonstrating that the exchanged credits are not also used to satisfy the MS4 permit requirements.	**Agree.** DEQ agrees with the need to clarify this provision and revised 9VAC25-900-100.D.4. The revision clarifies that the MS4 service area baseline requirement only applies to credit generating practices installed by an MS4 entity within its own MS4 service area. However, MS4s generating credits shall have an accounting system regardless of the location of the credit generating project.
WK-2	Whitney S. Katchmark, PE HRPDC	2. The definitions of "MS4 service area" and "management area" must also be clarified. As written, "MS4 service area" does not include Phase I MS4s.	We support the following proposed definition: "MS4 service area" means, (i) for Phase II MS4 permittees, the term as defined ~~described~~ in 9VAC25-890-1, and (ii) for Phase I MS4 permittees, the service area delineated in accordance with the State permit issued pursuant to 9 VAC 25-870.380.A.3. There also should not be a separate definition of "management area" for MS4s and we support the following proposed definition: "Management area" means all contiguous parcels deeded to the	**Agree.** The proposed change has been made. **Clarifying edit for this term was made; however, the requirement was not eliminated**. DEQ agrees that the MS4 baseline requirement should not apply to projects developed by an MS4 locality located outside of the MS4 service area; therefore, a clarifying edit to the management area term has been made.

#	Commenter	Comment	Recommended Change	Response
			same landowner that includes the site of the nutrient credit-generating project within its boundaries. The term contiguous means the same or adjacent parcels that may be divided by public or private right-of-way. ~~The management area for an MS4 generating nutrient credits is the MS4 service area.~~	
WK-3	Whitney S. Katchmark, PE HRPDC	3. Local governments are concerned about local water quality and appreciate the additional language added to ensure flexibility and protections for local impairments. Subdivision 90.C.2 was amended to include language that "provides a workable methodology for exchanging credits when local water quality requirements are a consideration and provides necessary protections to ensure exchanges comply with and do not contravene local water quality requirements".	In order to maintain that flexibility, please consider the following change (in bold) to 90.C.2.c.iii:, "the department **or VSMP Authority** determines through issuance of a VPDES permit that local water quality cannot be protected unless exchange of credits are restricted to upstream of where the discharge reaches impaired waters".	**No change.** DEQ appreciates the support of the local water quality provisions noted in the comment. However, as the VSMP authorities do no issue VPDES permits, the requested change was not made. Please note, this requirement (now in Subdivision 90.D.2.d(1)) was added to the regulations in order to provide protections to local water quality through the individual permit process and address an individual allocation in a VPDES permit.
WK-4	Whitney S. Katchmark, PE HRPDC	4. Parties applying for credit certification should verify compliance with local land use and zoning requirements. The proposed rule does not ensure that credit applicants must verify that a proposed credit generating project is in compliance with the laws of the locality in which it will be implemented.	We support the following proposed language in 9VAC 25-900-80.A: A completed local government ordinance approval certification form that verifies that the nutrient credit-generating project is consistent with any local ordinances adopted pursuant to Chapter 22 of Title 15.2 of the Code of Virginia, §15.2-2200 et seq.	**No change.** The form recommended is used in other programs as it is required to have such approval certification by statute. However, for the certification of projects that are reducing the nutrient loads in surface waters, there is not a similar statutory requirement. As with all land-use projects, local governments have their own separate authorities for what is allowed or not allowed within their jurisdiction.
TM-1	Timothy A. Mitchell, President, VAMSA	**A. Protections for Local Water Quality** VAMSA supports the protections for local water quality in the proposed rule. We note that it may be appropriate in some cases for MS4 localities—as DEQ's co-regulators with authority to regulate development and redevelopment activities—to impose local limitations on the use of certified	Accordingly, we support the revision to 9 VAC 25-900-60.D requiring that the use of nutrient credits be in compliance with any "requirements lawfully imposed by a locality or local MS4."	**Noted.** The DEQ appreciates the comment in support.

#	Commenter	Comment	Recommended Change	Response
		credits where it is deemed necessary to protect local water quality.		
TM-2	Timothy A. Mitchell, President, VAMSA	**B. Limitation of Liability for Local Government** DEQ appropriately disclaims any responsibility or liability for the performance of nutrient credit generating projects in 9 VAC 25-900-60.A.	VAMSA appreciates that DEQ has extended that limitation to political subdivisions of the Commonwealth for the credit-generating projects of third parties and the use of such credits by third parties.	**Noted.** The DEQ appreciates the comment in support.
TM-3	Timothy A. Mitchell, President, VAMSA	**C. Clarification on Nitrogen and Phosphorus Credit Use by MS4s.** As previously proposed, the rule would have restricted the ability of MS4s to acquire or sell nitrogen and phosphorus credits independently. We believe that was an unintentional error and that the restrictions were intended to apply only to credit use for development and redevelopment projects that are regulated on the basis of a phosphorus standard.	The revisions to 9 VAC 25-900-90.A.2 and .A.3 correct this apparent error.	**Noted.** The DEQ appreciates the comment in support.
TM-4	Timothy A. Mitchell, President, VAMSA	**D. Financial Assurance Requirement for Localities** The financial assurance requirement in 9 VAC 25-900-230.D for localities, authorities, utilities, sanitation districts, and MS4 owners has been revised so that such entities need not "certify" that their taxing or ratemaking authority will be used in a particular manner.	This welcome revision is important because the previously proposed "certification" requirement could have been construed by the public finance market as a documented encumbrance on a governmental entity's future tax or rate revenues. We also note that this revision brings the rule in line with Va. Code § 62.1-44.19:20.B.4.	**Noted.** The DEQ appreciates the comment in support.
TM-5	Timothy A. Mitchell, President, VAMSA	**II. UNNECESSARY AND COUNTERPRODUCTIVE BASELINE REQUIREMENT FOR MS4s** **A. MS4 Baseline Requirement Should Be Eliminated** VAMSA objects to the new baseline requirement for MS4s added to the proposed rule in 9 VAC 25-900-100.D.4. This requirement was not found in the 2014 proposed rule. It states: *For a nutrient credit-generating project owned by*	Accordingly, VAMSA respectfully requests that the following revisions be made to the proposed rule: 9 VAC 25-900-10. Definitions. "Management area" means all contiguous parcels deeded to the same landowner that includes the site of the nutrient credit-generating project within its boundaries. The term contiguous	**Clarifying edit to the Management Area term and correction of the MS4 Service Area term were made. Baseline provision for MS4s was also clarified**. Requiring that MS4s meet their baseline WIP or TMDL reductions throughout its service area is appropriate since any regulated entity should be required to meet applicable regulatory or permit driven nutrient reduction requirements prior to generating credits. The

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		an MS4 permittee, baseline shall only be achieved when the level of nutrient reduction required by the WIP or approved TMDL, whichever is more stringent, is achieved for the entire MS4 service area. MS4 permittees generating credits for exchange outside the MS4 service area shall have an accounting system demonstrating that the exchanged credits are not used to satisfy the MS4 permit requirements. VAMSA does not object to the second sentence in this new baseline requirement. It is reasonable for an MS4 permittee to demonstrate that any certified credits it generates are not simultaneously transferred to a third party and applied to the owner's permit. However, VAMSA objects to the requirement in the first sentence for MS4 permittees to achieve full compliance with an applicable WIP or TMDL before they may be eligible to generate credits. That prohibition will serve only to keep many MS4 permittees from being eligible to generate credits for years, even if they are fully in compliance with their respective MS4 permits. This is the only baseline requirement in the proposed rule that is based not on the nature of the credit-generating project, but on the status of the entity that owns the project. The applicable baseline requirement for a nutrient-generating project should be the same if the owner is an MS4 permittee, a locality that is not an MS4 permittee, or any other party. Governmental entities that own and operate MS4s are rational actors that would not jeopardize their ability to comply with their permits, thereby inviting enforcement action, in order to generate nutrient credits for exchange with third parties. Instead, they will seek to generate certified nutrient credits when it facilitates compliance with their MS4 permit or furthers some other legitimate public purpose.	means the same or adjacent parcels that may be divided by public or private right-of-way. ~~The management area for an MS4 generating nutrient credits is the MS4 service area.~~ ~~"MS4 service area" means the term as described in 9VAC25-890.~~ 9 VAC 25-900-100. Establishing Baseline. D.4. ~~For a nutrient credit-generating project owned by an MS4 permittee, baseline shall only be achieved when the level of nutrient reduction required by the WIP or approved TMDL, whichever is more stringent, is achieved for the entire MS4 service area.~~ MS4 permittees generating credits for exchange ~~outside the MS4 service area~~ shall have an accounting system demonstrating that the exchanged credits are not used to satisfy the MS4 permit requirements	same criteria is applied to permitted animal feeding operations under 9VAC25-900-100.C.1 of the proposed regulation. DEQ agrees that the MS4 baseline requirement should not apply to projects developed by an MS4 locality but located outside of the MS4 service area. In response to this comment modifications to the "management area" definition are proposed to distinguish between projects developed by MS4 entities inside vs. outside of the MS4 service area. The baseline requirement in 9VAC25-900-100.D.4 was also clarified to indicate that it only applies to the generation of nutrient credits by MS4 permittees within the MS4 service area. The accounting requirement in 9VAC25-900-100.D.4 was also clarified to indicate that it applies to the exchange of any credits generated by an MS4 permittee and not just those created or exchanged outside of the MS4 service area.

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		Restricting their ability to generate nutrient credits is unnecessary and may prove counterproductive in many cases. Please consider the following examples provided by VAMSA members. Sale of Credits to Fund Nutrient Reductions. MS4 permittees may be able to generate nutrient reductions at costs that are below the market value of nutrient credits. Selling nutrient credits can generate valuable funds that can be used to support the MS4 program and allow the permittee to make the best use of limited MS4 budgets. For example, a permittee may be able to increase the size of a stormwater detention basin or stream restoration project at minimal marginal cost. The permittee could then apply the desired portion of the nutrient reduction to its MS4 permit obligations and sell the remainder as certified credits. The funds from the credit sale could be used to offset a substantial portion of the costs the project. This strategy can be used by MS4 permittees to effectively manage and reduce the per-pound cost of nutrient reductions, thereby allowing greater total nutrient reductions to be achieved with the same budget. Use of Nutrient Credits to Attract Economic Development. Local governments have many priorities, including fostering economic development to benefit their citizens and increase their tax base. Providing nutrient credits generated by the locality can be an effective way to incentivize prospective new commercial and industrial development, while also ensuring that the offsite nutrient credit-generating project will benefit local water quality in the jurisdiction. This potential incentive is especially valuable in more urban environments where onsite nutrient reduction options may be limited or inordinately expensive for new development and redevelopment projects. Many MS4 permittees rely on their		

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		general funds to support their stormwater programs and using nutrient credits to attract new development is an investment that ultimately will increase the pool of funds available for their stormwater programs. There is no reason to believe that local governments and other governmental entities operating MS4s cannot responsibly participate in the credit market while also meeting their MS4 permit obligations. Indeed, as the MS4 permittees to generate examples above demonstrate, allowing nutrient credits can aid permittees in meeting their Chesapeake Bay or local TMDL nutrient reduction goals in a timely and efficient manner.		
TM-6	Timothy A. Mitchell, President, VAMSA	**B. If the MS4 Baseline Requirement Is Not Eliminated, It Must Be Clarified** VAMSA believes there is no rational basis for precluding MS4 permittees from generating credits when these state and local government entities deem it prudent, provided those permittees can generate credits and attain the nutrient reductions required in their permits. If that prohibition is not eliminated from the rule, however, then it must be clarified and its proscriptive effect minimized. Proposed 9 VAC 25-900-100.D.4 appears to be internally inconsistent. The first sentence of the subsection states, "For a nutrient credit-generating project owned by an MS4 permittee, baseline shall only be achieved when the level of nutrient reduction required by the WIP or approved TMDL, whichever is more stringent, is achieved for the entire MS4 service area." This sentence suggests that an MS4 permittee is not eligible to generate credits prior to achieving the applicable nutrient reduction for its entire service area. There is no distinction for nutrient credit generating projects within or without the service; the restriction appears to apply any credit generating project owned by the MS4 permittee.	Considering the issues noted above, if 9 VAC 25-900-100.D.4 is not stricken from the rule, it should at least be modified as follows: No credits may be certified for ~~For~~ a nutrient credit-generating project owned by an MS4 permittee and located within the permittee's MS4 service area until~~, baseline shall only be achieved when~~ the level of nutrient reduction required by the WIP or approved TMDL, whichever is more stringent, is achieved for the entire MS4 service area. MS4 permittees generating credits for exchange from projects located outside the MS4 service area shall have an accounting system demonstrating that the exchanged credits are not used to satisfy the MS4 permit requirements. The definition of "MS4 service area" in 9 VAC 25-900-10 also	**Agree.** DEQ agrees with the need to clarify these provisions and has made modifications to the definitions of both "Management area" and "MS4 service area" in 9VAC25-900-10 as well as the baseline requirements is 9VAC25-900-100.D.4 in the final regulation. The modifications clarify that the MS4 service area baseline requirement only applies to credit generating practices installed by an MS4 entity within its own MS4 service area and that the MS4 must have an accounting system regardless of the location of the credit generating project. An MS4 "management area" definition is necessary as the use of "management area" in 9VAC25-900-100.A also applies to the MS4 baseline requirement in 9VAC25-900-100.D.4. Any clarification necessary to distinguish between MS4 wide management areas and the management area associated with a specific project will be addressed in guidance. DEQ agrees that the inspection requirements included in 9VAC25-900-140.A.1 is limited to those areas owned

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		The second sentence of 9 VAC 25-900-100.D.4 appears to be inconsistent with the first. It states, "MS4 permittees generating credits for exchange outside the MS4 service area shall have an accounting system demonstrating that the exchanged credits are not used to satisfy the MS4 permit requirements." This language suggests that MS4 permittees may generate credits at any time if the credit-generating project is located outside the MS4 service area. If DEQ does not eliminate this restriction altogether, it should be clarified that it only applies to MS4 permittees' nutrient credit-generating projects located within the MS4 service area. There is certainly no reason to prohibit MS4 permittees from generating credits from environmentally beneficial projects located outside of their MS4 service areas. Moreover, this appears to have been DEQ's intention in the first place. Furthermore, for the sake of clarity, the restrictions on MS4 permittees should be characterized as a condition that must be met before an MS4 permittee becomes eligible to generate credits, not as a "baseline." In its present form the rule will create inconsistent "baseline" requirements for MS4s. For example, assume an MS4 permittee has acheived its full WIP reduction and therefore is eligible to generate credits. If the permittee applies for credits from oversizing a stormwater retention pond for a new municipal building, two baselines potentially apply - the baseline for projects owned by an MS4 permittee and the urban practices baseline. The ambiguity in the rule will lead to confusion but can be resolved by simply not calling the restriction on MS4 permittees a "baseline." Lastly, even if DEQ maintains the baseline restriction for MS4s, there is no reason to separately define a "management area" for MS4s. The baseline for an MS4 is tied to its "MS4 service	should be revised to ensure that it covers Phase I MS4s. "MS4 service area" means, (i) for Phase II MS4 permittees, the term as defined ~~described~~ in 9VAC25-890-1, and (ii) for Phase I MS4 permittees, the service area delineated in accordance with the State permit issued pursuant to 9 VAC 25-870.380.A.3. Irrespective of whether DEQ accepts VAMSA's request to strike the baseline requirement for MS4s, the definition of "management area" in 9 VAC 25-900-10 should be revised as follows: "Management area" means all contiguous parcels deeded to the same landowner that includes the site of the nutrient credit-generating project within its boundaries. The term contiguous means the same or adjacent parcels that may be divided by public or private right-of-way. ~~The management area for an MS4 generating nutrient credits is the MS4 service area.~~	by the MS4 permittee and will also clarify this point in guidance.

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		area," and a separate "management area" definition for MS4s is confusing and extraneous. Similar to the discussion of "baseline" above, this definition means that nutrient credit-generating projects owned by MS4 permittees will have two distinct and inconsistent "management areas"—the defined management area for MS4 permittees and the defined management area for the specific project type. This definition also creates other problems throughout the rule. For example, 9 VAC 25-900-140.A.1 requires an owner to provide DEQ inspectors to access to any part of the management area. The defined MS4 "management area" will include many privately-owned parcels over which the permittee has no control.		
TM-7	Timothy A. Mitchell, President, VAMSA	**III. PARTIES APPLYING FOR CREDIT CERTIFICATION SHOULD VERIFY COMPLIANCE WITH LOCAL LAND USE AND ZONING REQUIREMENTS** One of the lessons learned with stream and wetland mitigation banking is that it is important to make sure new banks are developed in compliance with all land use, zoning, and other local legal requirements. This is no less true of nutrient banks and other credit-generating projects which often involve the same type of land use changes. VAMSA appreciates the provision in 9 VAC 25-900-60.F reminding nutrient credit applicants that they must comply with "local law or regulations." However, the proposed rule does not impose an affirmative duty on credit applicants to verify that a proposed credit-generating project is in compliance with the laws of the locality in which it will be implemented. A working draft of the rule circulated to the Regulatory Advisory Panel in 2017 included a provision requiring applications to include a certification that the proposal is consistent with all local ordinances. That prudent provision puts the	VAMSA requests that the following language be reinserted into the list of application requirements in 9 VAC 25-900-80.A: <u>A completed local government ordinance approval certification form that verifies that the nutrient credit-generating project is consistent with any local ordinances adopted pursuant to Chapter 22 of Title 15.2 of the Code of Virginia, §15.2-2200 et seq.</u>	**No change.** The form recommended is used in other programs as it is required to have such approval certification by statute. However, for the certification of projects that are reducing the nutrient loads in surface waters, there is not a similar statutory requirement. However, as with all land-use projects, local governments have their own separate authorities for what is allowed or not allowed within their jurisdiction.

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		onus on credit applicants to identify any local requirements that may be applicable to their proposed nutrient credit-generating project and verify that they are in compliance. It is unclear why that beneficial and unobjectionable application requirement was removed from the proposed rule.		
TJM-1	T.J. Mascia, Regional Manager, RES	This significant private investment has been predicated on the private market friendly approach the Virginia General Assembly created coupled with the predictable certification of nutrient credits and a thoughtful consideration of when nutrient credits may be used. The proposed regulations, in particular those concerning limitations on the use of credits, threaten this continued level of investment. To address this concern, we support and agree with the comments provided by the Virginia Mitigation Banking Association of which we are a member (comments attached). We have also developed an approach to implement VMBA comment number 4 relating to a method for 100% release of land conversion credits through the provision of financial assurance and certain enhancements.	We believe the following changes should be incorporated into proposed B. 1: B. Schedule of release of nutrient credits. The department shall establish a schedule for release of credits as follows: 1. For nutrient credit-generating projects using land use conversion, 25% of the credits will be released by the department after the department has verified completion of the conditions of the nutrient credit certification. The remaining 75% of credits will be released by the department after it is satisfied that the implementation plan's performance criteria required pursuant to 9VAC25-900-120 has been achieved. When a request for credit release is made concurrently with the application for nutrient credit certification from land conversion practices, the concurrent 25% initial release shall be processed on the same timeline as the application as provided in 9VAC25-900-80 C. When the request for credit release is from a previously approved land conversion project, the department shall schedule a site visit, if warranted, within 30 days of the	**Revision to phased release has been made but will not include 100% upfront release.** DEQ has changed the credit release schedule for land conversion projects in the final regulation. However, the onus for demonstrating success of the planting remains on the applicant rather than DEQ staff. DEQ does not have the resources to evaluate and track the financial assurance instruments (the vast majority of which have to be renewed annually) or contract/oversee when mechanisms must be cashed in to reestablish a failed planting. DEQ has researched timelines for establishing planting success criteria in other programs and proposes a release schedule that is not particularly onerous. When comparing Virginia's Non-Point Source (NPS) Trading with similar trading programs such as stream and wetland mitigation banking in VA and NPS trading in NC, neither of these programs allow for 100% credit releases for any practice. Tracking and holding financial assurance mechanisms that need to be renewed annually for each nutrient bank for 10 years is an unnecessary administrative burden on the DEQ that could be avoided through a staged credit release schedule. A staged release will ensure the DEQ has

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			request and shall deny, approve, or approve with conditions the release of the remaining 75% of the nutrient credits within 15 days of the site visit or determination that a site visit is not warranted. Alternatively, 100 percent of the credits will be released by the department after it has verified that (i) financial assurance is provided covering a three year period in an amount twice the documented cost for replanting 100% of the project's trees, (ii) financial assurance is provided for 10 years of monitoring and maintenance including (a) the control of woody invasive species impacting 5% or more of the credit generating area and (b) as necessary to assure a survival rate of 400 stems per acre, (iii) the planted trees are composed of at least 50% hardwood, (iv) an initial minimum density of 800 stems per acre is planted, and (v) all other conditions of the Department's certification have been met. This amendment, as well as addressing the other VMBA comments, will help support the level of private investment that RES and other private firms make to the commonwealth's water quality.	followed-up and verified the project continues to generate credits after the first growing season. Most planting failures occur within the first growing season. Requiring 800 stems per acre is excessive as is the requirement to provide twice the documented planting cost. It is exceedingly rare for a nutrient bank sell more than 50% of credits within the first year of establishing a credit generating project. **Since most banks do not sell more than 50% of credits generated in the first year the following compromise change has been made**: For nutrient credit-generating entities projects using land use conversion, 25% of the credits will be released by the DEQ after the department has approved an implementation plan for a nutrient credit generating project and has been provided a copy of the recorded Site Protection Instrument. An additional 25% will be released after the DEQ has verified land conversion activities have been completed (e.g. trees have been planted). This may be released concurrently with the initial 25% credit release. The remaining 50% of credits will be released by the DEQ after it satisfied that the implementation plan's performance criteria required pursuant to 9VAC25-900-120 has been achieved. When a request for credit release is made concurrently with the application for nutrient credit certification from land conversion practices, the concurrent 25%-50% initial release shall be

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				processed on the same timeline as the application as provided in subsection D of 9VAC25-900-80..
SV-1	Shannon Varner, VMBA	**1. Additional consideration should be given to the lessons learned in the two years since the revised regulations where proposed.** Virginia, without certification regulations, has a very successful nonpoint trading market, one that has resulted in significant amounts of land, streams and buffers being improved through the use of private funds. These efforts have led to significant water quality benefits while at the same time providing a cost-effective compliance mechanism for both private and public entities. Since the revised regulations were proposed, a large portion of the current nutrient banks have been developed without certification regulations and based on guidance and private and public expertise. The proposed regulations do not take into account the lessons learned in the past two years and several elements could hinder additional conservation efforts and private investment. It is critical to a successful market that the certification regulations should not be overly burdensome and should foster private investment.	VMBA requests that adoption of the certification regulations be delaying until they are once again vetted by a regulatory advisory panel and appropriate improvements made based on the collective experience since the current draft was prepared.	**No change.** This regulation has been subject to a very lengthy RAP process during both the proposed and revised proposed phase. Additionally, it has been subject to public comment twice: once as a proposed regulation; and, once as a revised proposed regulation. At this time, the DEQ has a clear understanding of the issues presented by the commenters. It is unlikely that a further meeting of the RAP will resolve any of the remaining non-consensus issues including those with non-consensus such as local water quality. Therefore, at this time, the best course of action is to review the comments provided during the latest public comment period and to finalize the regulation for the consideration of the Board.
SV-2	Shannon Varner, VMBA	**2. Proposed "management area" definition should be amended. (Proposed (VAC25-900-10).** Requiring that an MS4 meet baseline throughout its service area is appropriate since any regulated entity should be required to meet applicable nutrient reduction regulatory or permit requirements before generating credits. On the other hand, when nutrient reducing projects are implemented voluntarily by an unregulated entity (e.g. an individual land owner, a farmer) on unregulated land (e.g. agricultural lands), there is no similar justification for requiring all contiguous land under common ownership to meet baseline. Such unregulated landowners must	VMBA suggests that the management area definition be amended as follows to address these issues: "Management area" means an area no larger than all contiguous parcels deeded to the same landowner that includes the site of the nutrient credit-generating project within its boundaries. For purposes of credits generated by an entity with no regulatory or permit requirement to reduce nutrients from the land area proposed for the nutrient credit-	**No change.** Management area is the term used to describe the area over which baseline requirements must be met prior to generating additional reductions that may be certified as nutrient credits. Current DEQ guidance developed in conjunction with the Department of Conservation and Recreation (DCR) and issued in 2008 requires baseline practices be utilized within an entire U.S. Department of Agriculture (USDA)-Farm Services Agency (FSA) tract before credits can be produced. It was believed at the time that the FSA tract would represent a contiguous farming

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		sacrifice, in perpetuity, significant uses of the nutrient reducing project area in order to generate credits. Adding additional burdens on landowners, potentially encompassing large land areas, will act as a disincentive to the voluntary implementing of nutrient reductions. VMBA members already encounter landowner reluctance to baseline requirements on just portions of their land, such as an FSA tract. The current proposed definition would hinder, rather than provide a foundation for, a market-based trading system.	generating project, the management area is only that area generating credits and subject to a site protection instrument. The term contiguous means the same or adjacent parcels that may be divided by public or private right-of-way. The management area for an MS4 generating nutrient credits is the MS4 service area.	operation under common ownership or management. With several years of implementing the NPS trading program it has become apparent that using FSA tract boundaries to establish baseline creates some problems: (1) USDA considers FSA tract information to be confidential and it is not readily available to DEQ, (2) FSA tracts are sometimes outdated and do not always reflect the consolidation of adjacent properties under common ownership and (3) owners can request that USDA modify FSA tract designations to isolate only those fields being used to generate nutrient credits thereby eliminating baseline requirements for the adjacent portions of the same farm. The proposed definition of management area is intended to address the above issues and restore the original intent of the 2008 guidance. DEQ does not consider the management area definition to be onerous and it is reasonable to require a minimum level of performance across a farming operation in order to quality for entry into the voluntary trading market. Note that just as some applicants currently request re-designation of FSA tracts to avoid baseline requirements being placed on the entire farm, DEQ anticipates some applicants attempting to avoid the proposed requirements by transferring ownership of individual parcels under consideration.

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SV-3	Shannon Varner, VMBA	**3. Proposed phased release of credits from land conversion should be eliminated. (Proposed sections 9VAC25-900-90 B and 9VAC25-90-120 C and D.)** The proposed regulations would alter the current practice of releasing 100% of the credits upon removal of land for agriculture, planting, recording of restrictions and proof of financial assurance. Instead, only 25 % would be released initially, the remaining 75% would be released after the first full growing season for pine or after the second growing season for hardwoods. This delayed release has a significant impact on being able to meet market demands and providing a return on voluntary investments. This in turn will lead to a decline in private investment and the associated environmental benefits. The extended phased release time of hardwoods also incentivizes pine monoculture and disincentivizes hardwood or mixed plantings. VMBA has members who use hardwoods in land conversion projects but have determined that it will be uneconomical to do so if this regulation is adopted as proposed. The effect will be a loss of the diversity and ecological lift provided by mixed or hardwood plantings. The alternative of pine monocultures increases the vulnerability of forest to disease, invasive insects and climate change. The phased release of credits is used in wetland and stream mitigation banking for impacts to those forms of resources. However, the goals of those programs (i.e. providing compensation for the full set of environmental benefits associated with the impacted resource) is much broader in scope that nutrient credits (i.e. proving offsetting nutrient reductions) and involve more complex restoration efforts than land conversion. Based on these factors, any justification for a phased nutrient	For these reasons, the proposed phased release of land conversion credits should be removed.	**Revision to phased release has been made but will not include 100% upfront release.** DEQ has changed the credit release schedule for land conversion projects in the final regulation. However, the onus for demonstrating success of the planting remains on the applicant rather than DEQ staff. DEQ does not have the resources to evaluate and track the financial assurance instruments (the vast majority of which have to be renewed annually) or contract/oversee when mechanisms must be cashed in to reestablish a failed planting. DEQ has researched timelines for establishing planting success criteria in other programs and proposes a release schedule that is not particularly onerous to those generating credits. When comparing VA NPS Trading with similar trading programs such as stream and wetland mitigation banking in VA and NPS trading in NC, neither of these programs allow for 100% credit releases for any practice. Tracking and holding financial assurance mechanisms that need to be renewed annually for each nutrient bank for 10 years is an unnecessary administrative burden on the DEQ that could be avoided through a staged credit release schedule. A staged release will ensure the Department has followed-up and verified the project continues to generate credit after the first growing season. Most planting failures occur within the first growing season. Requiring 800 stems per acre is excessive as is the requirement to provide twice the documented planting

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		credit release based on the wetland and stream program is inappropriate.		cost. It is exceedingly rare for a nutrient bank sell more than 50% of credits within the first year of establishing a credit generating project. **Since most banks do not sell more than 50% of credits generated in the first year the following compromise change has been made**: For nutrient credit-generating entities projects using land use conversion, 25% of the credits will be released by the DEQ after the department has approved an implementation plan for a nutrient credit generating project and has been provided a copy of the recorded Site Protection Instrument. An additional 25% will be released after the DEQ has verified land conversion activities have been completed (e.g. trees have been planted). This may be released concurrently with the initial 25% credit release. The remaining 50% of credits will be released by the DEQ after it satisfied that the implementation plan's performance criteria required pursuant to 9VAC25-900-120 has been achieved. When a request for credit release is made concurrently with the application for nutrient credit certification from land conversion practices, the concurrent 25%-50% initial release shall be processed on the same timeline as the application as provided in subsection D of 9VAC25-900-80. An additional provision allowing for credit release for mixed specie plantings after the first complete growing season is also proposed in 9VAC25-900-120.C.2 to

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				encourage the planting of higher quality forests.
SV-4	Shannon Varner, VMBA	**4. Financial assurance for land conversion should be required and if comment 2 is not agreed to, should serve as an alternative means to provide a 100% release.** The proposed regulations eliminate the current requirement that land conversion projects provide financial assurance. The likelihood of a land conversion failure in Virginia is low due to the fact that most land in the state naturally converts to forest on its own. However, having funds available for land conversion projects is beneficial to the environment and the mitigation industry at large by assuring that the banker has funds set aside to address issues if they do arise. The financial assurance also can provide a back stop, which is lacking in the proposed regulations, should there be a failure after a phased release (if that is adopted in the regulations).	If financial assurance will not be required for all land conversion banks, the regulations should provide an option for the use of financial assurance as a mechanism for 100% credits release. The financial assurance could be coupled with other site requirements to provide additional assurance that the project will be successful at reducing nutrients.	**A revised phased release has been included in the final regulation.** See response to #SV-3 above.
SV-5	Shannon Varner, VMBA	**5. The proposed regulations treatment of local water quality requirements goes beyond that required by statute and should either be eliminated or significantly revised. (See proposed section 9VAC25-900-90 C.)** These provisions go well beyond what the statute requires and are not appropriate in a regulation the focus of which is to be on the front-end certification of credits rather than on the backend use of credits. They also treat all credits as if their use will have a negative water quality impact even though there may be no relation between their use and a local water quality issue. VMBA suggests the following alternatives to address these issues: (i) eliminate all of proposed section 9VAC25-900-90 C after its first three sentences since other portions of the regulations include what the statute requires (i.e. "that the option to acquire nutrient credits for compliance purposes shall not eliminate	Proposed amendments to achieve this are as follows: C. Registration of nutrient credits. Credits will be placed on the registry and classified as term or perpetual credits by the department. The registry will also indicate the number of credits that have been released for exchange. Only credits released by the department are available for exchange. Exchange of a credit released by the department is: 1. Subject to the provisions of § 62.1-44.15:35, 62.1-44.19:15, or 62.1-44.19:21 of the Code of Virginia; and 2. Where necessary to ensure compliance with local water quality	**No change.** DEQ believes that the treatment of local water quality in 9VAC25-900-90 is consistent with the provisions in the State Water Control Law. In drafting the local water quality provisions in 9VAC25-900-90, DEQ has balanced the need to protect local water as required by § 62.1-44.19:20 B 7 and § 62.1-44.15:35 C of the statute and other provisions of the State Water Control Law allowing for the use of water quality trading. In order to meet the statutory requirements of protecting water quality, Subdivision 90 D 2 of the regulation includes restrictions on the exchange of nutrient credits upstream of locally impaired waters. VA Code § 62.1-44.19:20 B establishes minimum requirements for the contents of the

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		any requirement to comply with local water quality requirements.") See §62.1-44.19:20 B. 7 and proposed regulation 9VAC25-900-40 B. (ii) as an alternative to deleting proposed section 9VAC25-900-90 C., amend the section to (a) reflect current guidance that impaired waters only come into play when a development site's runoff "directly discharges to" the impaired water rather than using the vague phrase "discharge reaches," (ii) better align limitations on the use of credits in areas with a TMDL with how TMDL limitations work in practice, (iii) have the limitations restricted to impairment related to nutrients rather than "dissolved oxygen, benthics or nutrients" and (iv) protect current private investments in creating nutrient reductions.	requirements, subject to Subdivisions 3, 4 and 5 below, conditioned as follows: a. Within the Chesapeake Bay Watershed, the exchange of credits within an area subject to an approved local TMDL for total phosphorus or total nitrogen with allocations more stringent than the Chesapeake Bay Watershed TMDL shall be limited to those credits generated upstream of where the discharge reaches impaired waters and within the approved local TMDL watershed. b. Within the Southern Rivers watersheds, the exchange of credits within an area subject to an approved local TMDL for total phosphorus or total nitrogen shall be limited to those credits generated upstream of where the discharge reaches impaired waters and within the approved local TMDL watershed. c. Within an area with waters impaired for dissolved oxygen, benthic community or nutrients but with no approved local TMDL, the exchange of credits shall be limited to those credits generated in accordance with the following hierarchy: (1) Upstream of where the discharge reaches impaired waters, if credits are available; (2) Within the same 12-digit HUC, if credits are available; (3) Within the same 10-digit HUC,	proposed regulation. Specifically, § 62.1-44.19:20 B 7 requires that the regulation "Provide that the option to acquire nutrient credits for compliance purposes shall not eliminate any requirements to comply with local water quality requirements". § 62.1-44.19:20 B requires that the proposed regulations shall "Provide such other requirements as the Board deems necessary and appropriate." VA Code § 62.1-44.15:35.C establishes limits on the use of nutrient credits to meet post development water quality design criteria under the Virginia Stormwater Management Program. It states that "…No applicant shall use nutrient credits or other offsite options in contravention of local water quality-based limitations (i) determined pursuant to subsection B of § 62.1-44.19:14, (ii) adopted pursuant to § 62.1-44.15:33 or other applicable authority, (iii) deemed necessary to protect public water supplies from demonstrated adverse nutrient impacts, or (iv) as otherwise may be established or approved by the Board…." It should be noted that local water quality requirements or limitations can be established in response to water quality impairments. A water quality impairment means that a particular stream does not support its applicable designated use. There are six designated uses that may be applied to surface waters: aquatic life, fish consumption, shellfishing, recreation, public water supply and wildlife. In addition to the designated uses, Virginia's water quality standards include numeric criteria for physical and

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			if credits are available; (4) Within the same 8-digit HUC, if credits are available; (5) Within an adjacent 8-digit HUC within the same tributary, if credits are available; or (6) Within the same tributary. 3. Subdivisions 2 a and 2 b shall not apply (i) until any growth factor has been utilized or when a TMDL cap will not be exceeded, (ii) in TMDL watersheds where sources other than that for which the nutrient credits would be used are identified in the TMDL as representing a more cost effective approach or priority, or the cause of the underlying impairment, or (iii) to nutrient banks for which a nutrient reduction implementation plan has been approved by the department prior to the effective date of these regulations. 4. ~~The hierarchy of this s~~ Subdivisions 2 a, b and c shall not apply: (i) until it is determined that the impairment is directly caused by nutrients associated with the type of source seeking to utilize credits; (ii) should it be demonstrated to the department's satisfaction that ~~(i)~~ the water quality impairment is not likely caused by nutrients or that ~~(ii)~~ the use of credits would not reasonably be considered to cause or contribute to the impairment; ~~or~~ (iii) the department determines through issuance of a VPDES permit that local water quality	chemical water quality that are used to assess whether the designated uses are supported. If a waterbody contains more of a pollutant than is allowed by the numeric water quality criteria, or is below a specified threshold for the aquatic life use assessment, it will not support one or more of its designated uses. Such waters are considered to have impaired quality. In considering Subdivision 90 D 2 of the regulation it is important to note that this provision is intended to further protect local water quality for trades involving nonpoint source nutrient credits. In addition to trades under the Virginia Stormwater Management Program, § 62.1-44.19:21 also authorizes the use of nonpoint source credits by Municipal Separate Storm Sewer Systems (MS4s), confined animal feeding operations subject to a VPDES permit and facilities registered under the industrial stormwater general permit. However, the vast majority of nonpoint source nutrient credits purchased in Virginia are used to meet the post development water quality design criteria for new development or redevelopment. The design criteria in 9VAC25-870-63 are most often administered by local Virginia Stormwater Management Program authorities and these authorities often seek interpretation of the local water quality provisions included in § 62.1-44.15:35.C. The existing code and regulatory provisions lack specificity as to how to interpret the local water provisions. The decision of how to protect water quality upstream of existing impaired waters usually

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			cannot be protected unless exchange of credits are restricted to upstream of where the discharge reaches impaired waters; or (iv) to nutrient banks for which a nutrient reduction implementation plan has been approved by the department prior to the effective date of these regulations. 5. Subdivisions 2 a, 2 b, and 2 c shall further not apply to credits for compliance with post development water quality technical criteria unless the land disturbing project for which the credits would be used directly discharges to the impaired waters.	has to be made without the benefit of an intensive, site-specific stream study. The post development water quality design criteria for new development or redevelopment included in 9VAC25-870-63 are intended to protect local water quality yet they were not developed on a site-specific basis. Furthermore, § 62.1-44.15:35 provides for the use of nutrient credits to meet the criteria under certain conditions. However the use of nutrient credits upstream of local water quality impairments that may be due to nutrients (or are due to nutrients but for which a TMDL has not been developed) creates the risk of additional degradation of an already impaired stream. DEQ has considered the provisions in both the State Water Control Law and the Virginia Stormwater Management Program Regulation (9VAC25-870) and developed criteria in Subdivision 90 D 2 of the regulation to consistently interpret and apply the local water quality provisions in the Code. The Board's authority to adopt such requirements is provided in § 62.1-44.19:20.B(ix) and § 62.1-44.15:35.C(iii) of the State Water Control Law. Subdivisions 3, 4 and 5 as proposed by the commenter would effectively eliminate the local water quality restrictions included in the proposed regulation. Subdivison 3 as proposed by the commenter would require an ongoing detailed analysis to track the use of the TMDL growth factor and demonstrate that the growth factor had been exhausted before the local water quality requirement would apply. This provision would apply to new

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				nutrient sources before the watershed has even been restored making it even more unlikely that the watershed would ever be restored. Subdivision 3 as proposed by the commenter would also effectively eliminate the trading restriction for any new source, as the new source could not have been the cause of the original underlying impairment. Likewise, the commenters proposed Subdivision 4(i) would eliminate the local water quality provisions for any new source unless nutrients from existing sources of the same type are directly responsible for the impairment. The commenters proposed Subdivision 5 would eliminate the local water quality provision for development projects located upstream of but not discharging directly to impaired waters. The commenter's proposed Subdivisions 3(iii) and 4(iv) address the idea of grandfathering existing nutrient banks such that the proposed local water quality provisions in 9VAC25-900-90 would not apply. The concern is that the proposed trading restrictions would limit the potential market for existing banks, thereby stranding those assets. DEQ gave careful consideration to this matter but believes that local water quality protections are necessary regardless of when the nutrient banks servicing an area are approved. Statewide, there are few local nutrient TMDLs that would limit trades to credits generated upstream of a new development project in accordance with Subdivisions 2 a and 2 b. There are numerous local water quality impairments in urbanized areas that would be subject to the trading hierarchy in Subdivision 2 c. However all

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				nutrient banks are still eligible to serve large areas of potential development in the same or adjacent 8-digit Hydrologic Unit Code (HUC). Under the proposed regulations, more development in impaired watersheds is likely to be designed to meet the post-development water quality design criteria onsite rather than relying on the purchase of credits. Credits that are acquired to service development projects in impaired watersheds will be acquired from banks located closer to the development. Banks located in or close to impaired watershed will become more valuable and the market will adjust to the new requirements over time.
SV-6	Shannon Varner, VMBA	**6. Provide added flexibility for financial assurance amounts and mechanisms.** The proposed regulations include specific mechanisms for calculating financial assurance requirements and specific mechanisms that may be used. The proposed requirements for calculating the amount of financial assurance go well beyond what is needed to meet the statutory requirement to "reasonably assure the generation of credits" and do not provide the department with flexibility in establishing what is a reasonable amount based on the "nature of the credit-generating activity and use." (§ 62.1-44.19:20 B. 4.) The proposed regulations allowable mechanisms do not allow for the use of escrows even though the statute (§ 62.1-44.19:20 B. 4.) calling for the development of financial assurance mechanisms specifically mentions escrows. Escrows are commonly used in the typical wetland and stream mitigation banks and may be put in place and maintained at much less cost that other forms of financial assurance. The use of an escrow places no more burden on the department than other mechanisms and is a	VMBA suggests the following to address these issues. (i) Escrows should be added as an allowable financial assurance mechanism. (ii) The regulations should provide DEQ with flexibility to consider alternatives to the specifics set out in the proposed regulations. This could be accomplished by adding a new subsection to proposed 9VAC25-900-230: "E. In addition to those specified in this Part, the department may consider and accept other offers and forms of financial assurance."	**No change.** By including the word "may", the statute allows DEQ the flexibility to decide which mechanisms are more protective and meet the intent of the requirement to provide financial assurance. Other statutes have also used "may" when describing allowable mechanisms and in those instances DEQ has chosen not to use a specific mechanism if it was one that DEQ determined was not protective and did not meet the intent of providing financial assurance. In one instance DEQ approved the use of an escrow account as an option for a secondary financial assurance mechanism for any locality whose environmental obligations for solid waste landfills were between 20% and 43% of its total revenue. That mechanism has since been removed from the regulation. The commenter also mentions that escrows are commonly used in typical wetland and stream mitigation banks. According to DEQ's wetlands program, the IRT (particularly the Corps) is moving away from escrow accounts for long-

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		mechanism with which both the department and the regulated community are familiar.		term management. Escrow accounts in the wetlands program are not reviewed or maintained by DEQ. The commenter also stated that the use of an escrow would place no more burden on the DEQ than any other mechanism. DEQ disagrees with this statement. Currently the Office of Financial Responsibility and Waste Programs has one staff who reviews all of the solid waste, hazardous waste, wetlands and mitigation banks financial assurance annual submittals (close to 300 hundred submittals). An escrow account mechanism would require another level of review because DEQ would need to review the underlying contract between the escrow agent and the owner, as well as develop its own wording of the mechanism and review procedures. An escrow is an infrequent option in government mandated financial assurance programs, both environmental and non-environmental. The main reason is because it offers less security than other mechanisms. One of the major weaknesses of an escrow account is that the funds remain the legal property of the owner and are vulnerable to the bankruptcy of the owner. Additionally the escrow agent must look out for the interests of the owner and is not as independent as a trustee for a trust account.
SV-7	Shannon Varner, VMBA	**7. Provide flexibility for release of credits from stream restoration.** The proposed regulations include a formulistic approach to the release of stream nutrient credits. The proposed approach does not allow the department flexibility to release credits when	VMBA suggests the following to address these issues: The proposed regulations should include flexibility to speed the release of stream nutrient credits when the restoration has been demonstrated to remain stable and	**No change.** The release schedule for stream restoration already accounts for whether a bankfull or larger storm events has occurred each monitoring year. If a large storm event occurs, more credit is released than if a large storm event did not occur. The DEQ needs to

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		stream stability is demonstrated in a shorter period than suggested in the proposed regulations.	functioning following significant storm events.	observe stream stability not simply through one monitoring event or year, but as dynamically stable and functioning stream conditions over time. We believe that the current credit release accounts for this.
PS-1	Peggy Sanner, CBF	We appreciate the painstaking, thoughtful and dedicated work of the Department of Environmental Quality (DEQ) on the NPS regulation and its clear and courteous leadership throughout each RAP session. We also support the NPS regulation's many strong features, which creates a comprehensive program for nonpoint source nutrient credit generation and trading, including procedures for securing regulatory approval for nonpoint source credit generation (e.g., application requirements, applicable baselines, performance criteria, determination of credit quantity and duration, retirement of credits, required stewardship and financial assurances, certification), registering credit availability, and limiting the use of nonpoint source credits in cases where the receiving water is impaired or subject to a local TMDL. Now, as the Bay TMDL's 2025 deadline looms, we anticipate substantially increased interest and reliance by Virginia permittees on nutrient trading as a cost-effective way to meet sometimes challenging pollution reduction requirements. Accordingly, it has never been more important to include in the NPS regulation the details that will ensure the program delivers real, verifiable, cost-effective, transparent and accountable pollution reductions.		**Noted.** The DEQ appreciates the comment.
PS-2	Peggy Sanner, CBF	**Public Notification/Public Comment**. Throughout the RAP processes for the NPS regulation, CBF has sought to ensure definite opportunities for the public to comment on proposed nutrient generation operations.6 We have pointed out that public involvement with water quality issues is a foundational principle in the	Recommendation: The NPS regulation should be amended to add a brief, required public comment period for all proposed credit generation practices.	**No change.** The requirement for public notification of a proposed non-point nutrient credit generating facility is stipulated in the authorizing legislation (see Subdivision B.1.g of § 62.1-44.19:20 of the SWCL). Therefore, the regulations include a provision for public

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		Clean Water Act (CWA), which requires an opportunity for public comment in all CWA permitting processes and affords citizens with appropriate standing to act as "private attorneys general" to challenge CWA permits to correct deficiencies.7 The Bay TMDL carries the CWA's public accessibility framework forward; it emphasizes that, where harnessed to achieve pollution reductions for the Bay, jurisdictions' nutrient trading programs must be transparent and accessible to interested parties.8 Virginia's trading regulations, which are intended to enable nutrient trading to fit smoothly into CWA permitting to facilitate achievement of Bay TMDL goals, should be fully transparent and open to public input. The current proposal increases public transparency over earlier versions. Thus, it requires DEQ to post on its public website notification of each proposed nutrient credit generating facility after receipt of an application, along with related information: the applicant's name, the location of the proposed credit-generating project and a description of the practices to be used.9 While helpful, these provisions do not create any opportunity for the public to provide input to DEQ, or for DEQ to consider any outside perspectives on credit generation proposals—an important missed opportunity for DEQ to better understand potential ramifications of a proposed operation, whether relating to the generation site, the proposed performance standards, and any other issues. Moreover, creating an opportunity for the public to comment on a complex regulatory program can help educate, alleviate concerns, and build trust in the public. Denying the opportunity to provide input could increase existing distrust and suspicion, build interest in a litigation challenge to permittees' plan to rely on nutrient credits to meet		notification. However, in cases where the DEQ decides that additional public involvement would be useful for the review and processing of the certification application, the DEQ may still utilize an informal public comment period without requiring a formal public comment process for all nutrient credit certification applications which may unnecessarily complicate and extend the process for every application. The notice requirements have been revised to provide additional details including DEQ contact information.

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		limits, and thus discourage credit use and undermine the program.		
PS-3	Peggy Sanner, CBF	**Evaluation of Innovative Practices.** With the 2012 Trading Act legislation, the General Assembly tasked DEQ with developing a process to certify "innovative methods of nutrient control or removal, as appropriate."10 The NPS regulation attempts to implement this directive, first, by clarifying that innovative practices are practices that have not been subjected to the usual, rigorous scientific federal or state vetting processes to establish nutrient-reduction effectiveness-- that is, "practices or BMPs not approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP clearinghouse."11 The NPS regulation also provides that DEQ (i) may require applicants to submit any information to evaluate innovative credit generation proposals (e.g., demonstration projects, data sufficient to evaluate results, and other information to determine credit validity)12 and (ii) may convene a certification advisory committee (CAC) to provide input in the application review.13 Further, DEQ (i) must perform a case-by-case review to calculate the number of potential credits to be generated, (ii) must only issue term (not perpetual) credits with a maximum term of 5 years,14 and (iii) must notify the public of the innovative practice application on two (not one) occasions, with the second to announce DEQ's intent to issue credit certification.15 These provisions will collectively help to prevent DEQ's improvident certification of deficient practices.16 However, they do not go far enough to ensure the effectiveness of innovative generation practices.17	Recommendations: To better facilitate DEQ's ability to secure helpful scientific, technical and other input in reviewing innovative credit generation practices: * The NPS regulation should be amended to make it mandatory, not discretionary, for DEQ to convene a CAC to assist in reviewing applications for innovative generation practices. * The NPS regulation should be amended to ensure a formal public comment opportunity at a minimum on applications for credit generation from innovative practices to ensure DEQ has the benefit of a wide range of perspectives on new scientific, technical and other issues.	**No change.** The flexibility to allow the DEQ to go through an advisory committee process remains in the regulation. If the innovative practice warrants, an advisory committee will be used. However, to require an advisory committee as mandatory in all cases is overly restrictive.
PS-4	Peggy Sanner, CBF	**Protection of Local Water Quality**. As has been frequently noted, the possibility that nutrient trading may impair or worsen local water quality is a source of continuing concern among members of	Recommendation: The quoted provision should be amended as follows: "The hierarchy of this subdivision shall not apply should it	**No change.** The language in question does not prioritize the availability of credits for permittees' use over the need to protect local quality but

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		the public. The NPS regulation first addresses this issue by clarifying that it does not limit the authority to establish more stringent local water quality protections in permits, where necessary to protect water quality. Moreover, the regulation requires DEQ to condition credit use at specific sites when necessary to protect local water quality. Thus, for example, credits intended for use in waterways subject to a local nutrient TMDL that is more stringent than the Bay TMDL must be generated upstream of where the discharge reaches the waterway. This is a sound rule. By contrast, credits intended to be used in waters not subject to a local TMDL but impaired for benthic community, dissolved oxygen or nutrients should be generated upstream of where the discharge reaches the waterway "if available." If credits are not available upstream, then DEQ may authorize credits to be used up or downstream in the same tributary, within a hierarchy of successively larger geographic areas until reaching a location where generated credits are available. The regulation includes some water quality exceptions, but one such exception is crafted too broadly to provide real protection: "The hierarchy of this subdivision shall not apply should it be demonstrated to the department's satisfaction that . . . (ii) the use of credits would not reasonably be considered to cause or contribute to the impairment." In our view, these provisions improperly prioritize availability of credits for permittees' use over the need to protect local water quality.	be demonstrated to the department's satisfaction that . . . "(ii) the use of credits ~~would~~ will not ~~reasonably be considered to~~ cause or contribute to the impairment."	rather it does recognize that a demonstration may have to be made prior to the completion of a TMDL or detailed modeling studies. For example, it the source of the impairment is easily identified and the project which proposes to use credits would still result in a net reduction of nutrients delivered to the receiving stream, an exception may be appropriate
PS-5	Peggy Sanner, CBF	**Perpetual Nutrient Credits**. CBF has long considered land use conversion to forest and protected by a conservation easement or other similar legal instrument as the only practice that should be eligible for the generation of perpetual credits.22 Awarding that designation to structural BMPs (e.g., green roofs, wet and dry detention	Recommendation: Limit use of the perpetual designation to credits from land conversions to forest where protected by easements or deed restriction, and require all credits generated from structural BMPs to be designated renewable	**No change**. In order to assure the viability of perpetual credits generated by structural BMPs, the regulations require 50 years of O&M costs as well as a site protection instrument for a structural BMP certified to generate perpetual credits. Additionally, the use of structural

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		ponds, etc.) and restoration practices (wetlands, streams) can create problems due to the need to ensure continuing control over the site and the generating practice and the foreseeable required monitoring, maintenance, and replacement issues. To address these concerns, the NPS regulation includes new provisions: the requirements of detailed, legally binding site protection instruments (e.g., recorded easements, deed restrictions, trust creations)23; staggered release of credits following DEQ verification of completion of certification conditions and performance criteria implementation;24 and DEQ approval of financial assurance mechanisms.25 Nonetheless, it is highly unlikely that any structural BMP will in fact prove to be perpetual, and the financial assurance requirements reflect that reality by requiring assurances for the cost of replacement plus the estimated cost of 50 years of operation and maintenance. Fifty years is a long time, but it is still short of the lifetime of credits generated by land converted to protected forest.	term credits protected by appropriate financial assurance protections.	BMPs for the generation of perpetual credits is consistent with the stream and wetland mitigation program. It is also reasonable to allow the use of a structural BMP under appropriate conditions to generate credits used to offset loads that would have otherwise been controlled by a structural BMP built and maintained by the developer under the VSMP program.
MM-1	Mike McEvoy, President, VAMWA	On the whole, VAMWA believes that the Department of Environmental Quality's (DEQ) proposal will establish a regulatory framework with clear rules for the generation and exchange of nonpoint source nutrient credits. VAMWA has long supported the use of market-based nutrient credit trading to help address nutrient control requirements more cost-effectively. Since it was first adopted in 2005, the point source trading program implemented through the Chesapeake Bay Watershed General Permit has proven remarkably successful in helping to reduce costs for achieving desired levels of nutrient control in Virginia's Chesapeake Bay watershed. VAMWA believes it is beneficial to expand nutrient credit trading opportunities to include	Given the differences in how these two complementary nutrient credit trading programs function, it is important that it be clear which set of rules of apply to any given credit-generating activity. The proposed rule provides this clarity in several provisions. • The definition of "nutrient credit certification" in 9 VAC 25-900-10 has been revised to expressly exclude the "certification of point source credits generated by point sources regulated under the Watershed General Virginia Pollutant Discharge Elimination System Permit."	**Noted.** The DEQ appreciates the comment in support.

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		nonpoint source nutrient credits as a complement to the existing point source nutrient credit trading program.	• The definition of "nutrient credit" in the same section contains a similar exclusion for point source credits. This text has been retained from the 2015 proposed rule. • The applicability section in 9 VAC 25-900-30.D has been revised to clarify that the nonpoint source certification regulation does not apply to "certification of point source nutrient credits that may be generated from effective nutrient controls or removal practices associated with the types of facilities or practices historically regulated by the board, such as water withdrawal and treatment and wastewater collection, treatment, and beneficial reuse." These important clarifications are consistent with the requirements of Va. Code § 62.1-44.19:20. VAMWA supports their inclusion in the proposed rule.	
JR-1	Jon Roller, Ecosystem Services, LLC	Pursuant to 9VAC25-900-200. Determination of application fee amount, Section B., Paragraph 3, "Modifications of approved perpetual nutrient credit certifications will be assessed the base fee only unless the modifications generate additional perpetual credits then a supplementary fee based on the number of additional potential nutrient credits of phosphorus will be assessed in addition to the base fee as specified in subdivision 2 of this subsection." Based on the proposed language, it is unclear what constitutes a "modification" to an approved nutrient credit certification. The credit-generating entity will be assessed a fee (base + supplementary) for all potential credits at the receipt of the application per 9VAC25-900-200, B.,	The language is vague and should be clarified what comprises a "modification" to a nutrient credit certification. My comment is that phasing plans, credit release requests, design and engineering plans, and other related requests associated with the continued development and implementation of a nutrient bank should not be considered a modification and therefore not subject to additional fees. Modifications should be relegated to additional credit generating areas, practices, and	**No change.** DEQ agrees with the interpretation that modifications subject to the permit fee only include additional credit generating areas, practices and other changes that were not part of the approved Nutrient Reduction Implementation Plan and will include this interpretation in guidance.

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		2. Without a clear definition or understanding of what constitutes a modification, it appears possible for approved credit facilities to be charged redundant or duplicative fees for modification reviews. For example, if a land conversion bank proposes 100 acres of land conversion, but the release is split amongst two (2) 50-acre phases, per the current language, the applicant would be assessed a $10,000 fee for the initial application review. Subsequently, the applicant choses to move forward with Phase 2, the applicant would potentially then be assessed another base and supplementary fee of $8,000.	other changes that were not part of the approved Nutrient Reduction Implementation Plan.	
JC-1	Jeff Corbin, Restoration Systems	There is simply no need to define the Management Area to be so expansive and onerous for the nutrient credit generator, project, and/or land owner. The current process for defining the applicable area of the nutrient generating project has worked well, created a vibrant credit market, and resulted in no adverse water quality or other issues that warrant correcting. Moreover, 100s of millions of dollars have been provided through state and federal cost-share programs to agricultural landowners over the past several decades to reduce nutrient run-off without parallel restrictions on the area of application for those practices. Placing such onerous restrictions on the management area are unnecessary and counter-productive for several reasons, including 1) they would dissuade future practitioners from participating in the program, 2) the proposed definition is grossly unbalanced compared to how the applicable project area is defined for existing agricultural cost-share programs, and 3) the proposed definition is not warranted based on any documented problems with how the applicable project area is defined under the existing nutrient credit offset program.	The determination of the Management Area must remain as currently implemented under the existing program.	**No change.** The proposed change to the definition of management area would significantly reduce current baseline requirements and eliminate baseline nutrient reductions on all areas other than those being reforested to generate marketable credits. (For additional information, see response to #SV-2).

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JC-2	Jeff Corbin, Restoration Systems	One of the biggest incentives to the current Nutrient Offset Program, especially as it differs from Section 404 Wetland and Stream mitigation programs, is the full up-front release of credits. If there has been any degree of documented adverse impacts from the existing release schedule, then an adjustment, possibly with a phased-release, would be warranted. However, no such adverse impacts have been demonstrated. Implementing a phased release schedule, simply for the perceived benefit of providing an additional layer of protection, with no justified need, would do nothing but hamper the continued expansion and benefit of the program while providing no additional benefit or protection to natural resources.	The release of credits from land conversion must remain as currently implemented under the existing program.	**Revision to phased release has been made but will not include 100% upfront release.** (please refer to response to #SV-3).
JD-1	Jacob Dorman, Contech Engineered Solutions	1. We appreciate that the definition of a structural best management practice (BMP) in 9VAC25-900-10 continues to reflect the ability of manufactured treatment devices (MTDs) to participate as a credit generating practice.	Support	**Noted.** The DEQ appreciates the comment in support.
JD-2	Jacob Dorman, Contech Engineered Solutions	2. It's important that local water quality not be allowed to further degrade under these regulations.	Therefore, we recommend language be inserted within 9VAC25-900-90 that more closely resembles that which is found in the water quality design criteria requirements of 9VAC25-870-63. It states in part, "nothing in this section shall prohibit a locality's VSMP authority from establishing more stringent water quality design criteria requirements in accordance with § 62.1-44.15:33 of the Code of Virginia." We feel strongly that local programs should be able determine for themselves whether the use of nutrient credits is helpful to their long-term compliance strategy.	**No change.** Section 9VAC-900-90.C.1 of the proposed regulation states that the exchange of credits is subject to § 62.1-44.15:35 of the Code of Virginia, which authorizes VSMP authorities to adopt more stringent requirements to protect local water quality. Additionally, section 9VAC-900-60.D of the proposed regulations states that the option to acquire credits shall not eliminate any requirement to comply with local water quality requirements. Therefore, no additional references to local water quality are deemed necessary to ensure compliance with more stringent local water quality standards.

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JD-3	Jacob Dorman, Contech Engineered Solutions	3. We support the long-term operation and maintenance requirements found in 9VAC25-900-120 as all BMPs require maintenance to function correctly.	Support	**Noted.** The DEQ appreciates the comment in support.
JD-4	Jacob Dorman, Contech Engineered Solutions	4. We support the recordkeeping requirements found in 9VAC25-900-150 as yearly reports will improve the transparency of the program.	Support	**Noted.** The DEQ appreciates the comment in support.
EPA-1	EPA	No further comments.	No comments	**Noted.** No comments.
DD-1	Dwayne D'Ardenne, City of Roanoke Stormwater Utility	Does a "local water quality requirement" include an approved local TMDL Waste Load Allocation for an MS4, and can an MS4 restrict the use of nutrient credits on the basis of an existing non-nutrient local WLA (e.g. sediment?).	Can the Agency please clarify to provide more explicit provisions for local governments?	**No change.** The regulation is limited to the certification for non-point source nutrient credits for nitrogen and phosphorous. Nutrient trading cannot be restricted based on a sediment TMDL. In waters with a benthic impairment but no TMDL, trading is subject to the requirements of 9VAC25-900-90.C.2(c) which would establish a hierarchy for the acquisition of credits unless it is demonstrated to the satisfaction of the DEQ that the impairment is not likely caused by nutrients.
DD-2	Dwayne D'Ardenne, City of Roanoke Stormwater Utility	In this section, credit applicants are directed to three internet resources to assist in developing credits: 1. DCR's Agricultural BMP Cost Share Manual; 2. DCR's Invasive Plant Species List; 3. USDA's Field Office Technical Guide.	First, the link provided for resource 3 returned a "404 – Resource Not Found" error. Second, is this a comprehensive list of technical guidance that credit developers can use? Or is it a non-exclusive list of recommended resources? Either way, it should be clarified in the section header to avoid confusion.	**Agree.** This section has been reserved and the appropriate documents are now listed under the Documents Incorporated by Reference section of the regulation.
DD-3	Dwayne D'Ardenne, City of	In this section, there are three scenarios where the exchange of nutrient credits are further conditioned. It is notable that these conditions	The City recommends that nutrient exchanges not be allowed to leave or move downstream of an existing	**No change.** The provisions of this regulation are limited to the generation and use of nutrient credits.

#	Commenter	Comment	Recommended Change	Response
	Roanoke Stormwater Utility	restrict nutrient exchanges to upstream of the point of discharge only in the presence of a local nutrient TMDL or a local non-nutrient impairment with no approved TMDL. This allows downstream nutrient exchanges in areas with a non-nutrient local TMDL. This allowance creates a scenario where land developers in areas with local non-nutrient TMDLs can forego the construction of on-site water quality BMPs by purchasing credits downstream of the point of discharge. This is problematic for MS4 entities subject to local non-nutrient TMDLs for the following reasons: 1. When an on-site water quality BMP is not constructed because a developer chooses to purchase nutrient credits downstream, any additional water quality impacts beyond nutrient loading caused by the development site are no longer addressed at the site. The most salient example of this is that the Virginia DEQ-approved on-site water quality BMPs (9VAC25-870-65) were originally selected and credited based on both their ability to capture nutrients, and their ability to restore pre-development water balance (CWP, 2008). The nutrient capture service that these BMPs provide can reasonably be traded downstream but the hydrologic service cannot, as the developed water balance can cause downstream erosion at (and immediately downstream of) the outfall if not modulated by upland BMPs that provide some pre-development functions (e.g. Askarizadeh et al., 2015; McCuen and Moglen, 1988; Walsh et al., 2016). Consequently, continued land development without on-site water quality BMPs may lead to additional sediment loading, which is especially problematic in watersheds with existing local sediment TMDLs.; 2. This uncontrolled additional non-nutrient loading creates a regulatory accounting problem for local TMDLs. As land cover changes over time	sediment impaired water or a waterway with an accepted TMDL for sediment.	In most urban streams where sediment has been identified as the cause of a benthic impairment, stream bank erosion due to inadequate water quantity controls on historical development is usually the source of the sedimentation (as opposed to sediment running directly off of the land). New development projects wishing to acquire nutrient credits to meet the water quality requirements in 9VAC25-870-63 must still meet the water quantity requirements in 9VAC25-870-66 that are designed to prevent additional erosion.

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		to a more developed condition, TMDL sediment loading (for example) – which is frequently based on average land use yields such as those presented in Shaver et al. (2007) – will also increase. However, as on-site BMPs to control these additional loads are foregone, there will be a gap of uncontrolled loading that will remain unallocated and untreated in already impaired watersheds. As time passes, and estimated TMDL endpoints approach, how will DEQ and regulated entities with WLAs reconcile this gap? Will MS4s or other permitted entities be expected to provide additional water quality treatment for this uncontrolled loading caused by land development? If so, this seems to be an unequitable redistribution of regulatory impact from the land development and VSMP program to the MS4 and TMDL programs; 3. Finally, the City is concerned that if on-site water quality BMPs continue to be foregone for the purchase of credits downsteam, that this may lead to a future nutrient impairment caused by unmitigated land development. The City recommends that nutrient exchanges not be allowed to leave or move downstream of an existing sediment impaired water or a waterway with an accepted TMDL for sediment.		
DD-4	Dwayne D'Ardenne, City of Roanoke Stormwater Utility	The City objects to the new baseline requirement for MS4s added to the proposed rule in 9 VAC 25-900-100.D.4. The City does not object to the second sentence in this new baseline requirement. It is reasonable for an MS4 permittee to demonstrate that any certified credits it generates are not simultaneously transferred to a third party and applied to the owner's permit. However, the City objects to the requirement in the first sentence for MS4 permittees to achieve full compliance with an applicable WIP or TMDL before they may be eligible to generate credits. That prohibition will	The City objects to the new baseline requirement for MS4s added to the proposed rule in 9 VAC 25-900-100.D.4. The City does not object to the second sentence in this new baseline requirement. MS4s cannot responsibly participate in the credit market while also meeting their MS4 permit obligations. Indeed, as the examples above demonstrate, allowing MS4 permittees to generate credits can aid permittees	**Clarifying edit to the baseline provision for MS4s was made but the baseline was not eliminated.** Requiring that MS4s meet their baseline WIP or TMDL reductions throughout its service area is appropriate since any regulated entity should be required to meet applicable regulatory or permit driven nutrient reduction requirements prior to generating credits. The same criteria is applied to permitted animal feeding operations under 9VAC25-900-100.C.1 of the proposed regulation. DEQ

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		serve only to keep many MS4 permittees from being eligible to generate credits for years, even if they are fully in compliance with their respective MS4 permits. This is the only baseline requirement in the proposed rule that is based not on the nature of the credit-generating project, but on the status of the entity that owns the project. The applicable baseline requirement for a nutrient-generating project should be the same if the owner is an MS4 permittee, a locality that is not an MS4 permittee, or any other party. Governmental entities that own and operate MS4s are rational actors that would not jeopardize their ability to comply with their permits, thereby inviting enforcement action, in order to generate nutrient credits for exchange with third parties. Instead, they will seek to generate certified nutrient credits when it facilitates compliance with their MS4 permit or furthers some other legitimate public purpose. Restricting their ability to generate nutrient credits is unnecessary and may prove counterproductive as it limits transactions that could provide flexible and cost-effective compliance – two key principles of water quality markets (Stephenson and Shabman, 2011). Two examples of the potential use of nutrient credits by MS4 permittees are presented as follows: (i) <u>Sale of Credits to Fund Nutrient Reductions</u>. MS4 permittees may be able to generate nutrient reductions at costs that are below the market value of nutrient credits. Selling nutrient credits can generate valuable funds that can be used to support the MS4 program and allow the permittee to make the best use of limited MS4 budgets. For example, a permittee may be able to increase the size of a stormwater detention basin or stream restoration project at minimal marginal cost. The permittee could then apply the desired portion of the nutrient reduction to its MS4 permit obligations and sell the	in meeting their local TMDL reduction goals in a timely and efficient manner.	agrees that the MS4 baseline requirement should not apply to projects developed by an MS4 locality but located outside of the MS4 service area. In response to this, revisions to the “management area” definition are proposed to distinguish between projects developed by MS4 entities inside vs. outside of the MS4 service area. The baseline requirement in 9VAC25-900-100.D.4 was also clarified to indicate that it only applies to the generation of nutrient credits by MS4 permittees within the MS4 service area. The accounting requirement in 9VAC25-900-100.D.4 was also clarified to indicate that it applies to the exchange of any credits generated by an MS4 permittee and not just those created or exchanged outside of the MS4 service area

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		remainder as certified credits. The funds from the credit sale could be used to offset a substantial portion of the costs the project. This strategy can be used by MS4 permittees to effectively manage and reduce the per-pound cost of nutrient reductions, thereby allowing greater total nutrient reductions to be achieved with the same budget.; (ii) Use of Nutrient Credits to Attract Economic Development. Local governments have many priorities, including fostering economic development to benefit their citizens and increase their tax base. Providing nutrient credits can be an effective way to incentivize prospective new commercial and industrial development. This is especially valuable in more urban environments where onsite nutrient reduction options may be limited or inordinately expensive for new development and redevelopment projects. Many MS4 permittees rely on their general funds to support their stormwater programs and using nutrient credits to attract new development is an investment that ultimately will increase the pool of funds available for their stormwater programs.		
CF-1	Chris French, Bio Clean	1. Throughout the regulation development, there was discussion on how to implement the water trading program while providing reasonable assurance that local water quality will not be adversely impacted. This is especially important when water quality credit trades occur in lieu of utilizing on-site stormwater management practices. Under the VPDES Municipal Separate Storm Sewer System (MS4) Program, permits typically include programmatic requirements involving the implementation of best management practices (BMPs) in order to reduce pollutants discharged to the "maximum extent practicable" (MEP). We are aware of numerous instances where – under the current non-point source trading program absent	Bio Clean respectfully requests DEQ clarify how it is ensuring agency-wide programmatic consistency and guaranteeing the MS4 permit program MEP provisions are being met prior to allowing a water quality trade to occur.	**No change.** This regulation does not pertain to MEP. The regulation is for the certification of non-point nutrient credits and MEP is not an element of this regulation. However, the agency is developing guidance to compliment the trading program.

#	Commenter	Comment	Recommended Change	Response
		regulation - proposed development projects considered the purchase of nutrient credits first, without consideration of meeting the MEP requirement.		
CF-2	Chris French, Bio Clean	2. Bio Clean is pleased to see DEQ has considered not only the role of local and downstream Total Maximum Daily Loads (TMDLs) in the NPS trading program (9VAC25-900-90.C.2.a & 9VAC25-900-90.C.2.b), but also the presence of impaired waterways prior to allowing a trade (9VAC25-900-90.C.2.c). However, as 9VAC25-900-90.C.2.c is currently written, the potential exists for allowing a regulated land use activity to occur that could further the local impairment under the proposed credit exchange hierarchy. Where appropriate, DEQ should require the implementation of conservation practices to the "maximum extent practical" when such a site contributes to an identified impaired water body. Should trading be necessary, it should be limited upstream of the impaired water body. This will provide reasonable assurance the proposed water quality trade can offset the impacts of the land use activity without contributing more pollutants unchecked in a recognized impaired water body.	Bio Clean recommends DEQ readdress 9VAC25-900-90.C.2.c to ensure there is no possibility a water quality trade will allow an impaired water body to further degrade from allowable land use activities in its watershed.	**No change.** "Maximum extent practical" is a technology-based discharge standard for municipal separate storm sewer systems (MS4) that recognizes an iterative approach for implementation of stormwater controls. The standard is restricted to portions of the Clean Water Act and the Virginia Administrative Code dealing with MS4 systems and is not applicable to the post construction water quality design criteria in 9VAC25-870-63. Where a proposed discharge is located upstream of waters impaired for dissolved oxygen, benthic community, chlorophyll-a or nutrients, the proposed regulation requires that credits be acquired upstream of the project if available, and if not, as close to the proposed project as possible. This provision is necessary in order to minimize the potential impact of the use of credits while balancing the ability to utilize nutrient credits. In the case of dissolved oxygen and benthic community, the impairment may be related to nutrients but the agency does not know until a stressor analysis is performed as part of the TMDL process. In the case of chlorophyll-a and nutrients, the impairment is due to nutrients but the specific wasteload allocations (for point sources) and load allocations (for nonpoint sources) necessary to restore the stream have not yet been developed through the TMDL process.

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CF-3	Chris French, Bio Clean	3. Localities should be empowered to allow or reject proposed water quality trades; regardless of whether they are a Virginia Stormwater Management Program (VSMP) authority or not. Many municipalities have an active role in adopting policies and implementation program to improve local water quality and meet TMDL requirements. As currently proposed, there is the potential a locality based program (e.g. source water protection watershed programs) may conflict with a water quality trade approved at the state level, should a locality not have an opportunity to review the proposed trade to ensure local program compliance. This issue may also be a concern where DEQ is fully administering a locality's VSMP program and there is no review at the local level. Please note – what is described here is significantly different than the language in 9VAC25-900-100.D.1 of the proposed regulation. As such, DEQ should explore this topic further and consult with experts with direct knowledge of such watershed management programs in Virginia and municipalities who could be potentially impacted unintentionally under the proposed regulations. Bio Clean would be pleased to provide recommendations of localities and Service Authorities the agency should contact. Our staff has first-hand knowledge of one locality where such an issue could develop.	Bio Clean recommends DEQ develop a process in the proposed regulation to allow such communities to review proposed trades and determine if they are consistent with local programs, priorities and objectives.	**No change.** This comment will be considered during guidance development for the trading program.
CF-4	Chris French, Bio Clean	4. 9VAC25-900-80.B.2 & 9VAC25-900-80.C.2 proposes public notification of proposed nutrient bank solely through DEQ's web site. Bio Clean believes this is an inadequate public notice process. The DEQ web site is not something the everyday person looks at. A sole focus for public notification through the web site will exclude interested stakeholders, including those in rural and marginalized communities where there is a lack of	Bio Clean recommends DEQ follows the agency's public engagement procedures and requirements for public notification of proposed nutrient credit banks. This would be more inclusive and proactively limit unnecessary criticism of DEQ's NPS trading program should a controversy	**No change.** The requirement for public notification of a proposed non-point nutrient credit generating facility is stipulated in the authorizing legislation (see Subdivision B.1.g of § 62.1-44.19:20 of the SWCL). Therefore, the regulations include a provision for public notification. The notice requirements have been revised to provide additional details

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		broadband access. This raises potential environmental justice concerns. Additionally, DEQ has recently had its web site negatively impacted from an outside entity. A sole focus on public notification via the agency's web site could create significant delays in the establishment of a new nutrient credit bank should DEQ's web site is compromised again.	develop. It would also allow this regulation to be consistent with existing agency public engagement policies and programs.	including DEQ contact information. There is no additional procedures or public engagement policies that apply to the certification of proposed nutrient credit-generating projects.
CF-5	Chris French, Bio Clean	5. Bio Clean supports the Department's approach proposed phased release of credits (Sections 9VAC25-900-90 B and 9VAC25-90-120 C and D). While we understand the current program – implemented without supporting regulations – allows for the full release of credits, we agree with the precautionary approach in the proposed regulations. A phased credit release process especially critical for Streambank Restoration projects, where there is a high risk potential of project failure, as demonstrated in peer reviewed scientific literature. Please see the September 2011 special edition of Ecological Applications (https://esajournals.onlinelibrary.wiley.com/toc/19395582/2011/21/6) regarding the history and challenges associated with Streambank Restoration successes.	Support	**Noted.** The DEQ appreciates the comment in support.
CF-6	Chris French, Bio Clean	6. At least one of the web links in 9VAC25-900-70. Documents and Internet accessible resources appears to not be working.	DEQ should correct this and develop a process with partner agencies to appropriately update web links that are found within the proposed regulation.	**Agree.** This section has been reserved and the appropriate documents are now listed under the Documents Incorporated by Reference section of the regulation.
CF-7	Chris French, Bio Clean	7. Bio Clean is pleased to see the requirements in 9VAC25-900-120.C.1 & 9VAC25-900-120.D.2 regarding woody invasive species management. However, our staff's first-hand experience with reforestation shows that other invasive plant species types can cause establishment success issues; specifically, invasive vines.	We recommend DEQ either include other invasive plant types like vines or that the agency generalize this section to focus generically on invasive species.	**No change.** At this time, the DEQ has evaluated over 150 banks and has not noted an issue with other plant types, such as vines. The stem density requirement is sufficiently dense that this has not been an issue.

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CF-8	Chris French, Bio Clean	8. Bio Clean concurs with the long-term operation and maintenance requirements in the regulation.	Support	**Noted.** The DEQ appreciates the comment in support.
CF-9	Chris French, Bio Clean	9. Bio Clean also supports the recordkeeping requirements in the regulation.	Support	**Noted.** The DEQ appreciates the comment in support.

Project 3379 - Final

STATE WATER CONTROL BOARD
Promulgate new Nutrient Trading Certification Regulations

CHAPTER 900
CERTIFICATION OF NONPOINT SOURCE NUTRIENT CREDITS
Part I
Definitions

9VAC25-900-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"300 animal units" means the term as defined in 9VAC25-192-10.

"Act" means the Chesapeake Bay Watershed Nutrient Credit Exchange Program, Article 4.02 (§ 62.1-44.19:12 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

~~"Agricultural lands" means cropland, hayland, or pastures.~~

"Animal feeding operation" means the term as defined by 9VAC25-31-10.

"Applicant" means the person who submits an application to the department for nutrient credit certification pursuant to this chapter.

"Bankfull event" means the storm event that corresponds with the stream stage at its incipient point of flooding. The bankfull discharge associated with the bankfull event is the flow that transports the majority of a stream's sediment load over time and thereby forms and maintains the channel dimension, pattern, and profile.

"Baseline" means the practices, actions, or levels of reductions that must be in place before credits can be generated. The best management practices to be implemented for achieving baseline are provided in 9VAC25-900-100.

"Best management practice," "practice," or "BMP" means a structural practice, nonstructural practice, or other management practice used to prevent or reduce nutrient loads reaching surface waters or the adverse effects thereof.

"Board" means the State Water Control Board.

~~"CDA" means contributing drainage area.~~

"Certification of nutrient credits" or "nutrient credit certification" means the approval of nutrient credits issued by the department as specified in 9VAC25-900-80. Nutrient credit certification does not include the certification of point source credits generated by point sources regulated under the Watershed General Virginia Pollutant Discharge Elimination System Permit issued pursuant to § 62.1-44.19:14 of the State Water Control Law.

"Chesapeake Bay Watershed" means the land areas draining to the following Virginia river basins: the Potomac River Basin, the James River Basin, the Rappahannock River Basin, the Chesapeake Bay and small coastal basins, or the York River Basin.

"Concentrated animal feeding operation" means the term as defined by 9VAC25-31-10.

"Cropland" means land that is used for the production of grain, oilseeds, silage or industrial crops not defined as hay or pasture.

"DCR" means the Department of Conservation and Recreation.

"Delivery factor" means the estimated percentage of a total nitrogen or total phosphorus load delivered to tidal waters as determined by the specific geographic location of the nutrient source. For point source discharges the delivery factor accounts for attenuation that occurs during riverine transport between the point of discharge and tidal waters. For nonpoint source loads the delivery factor accounts for attenuation that occurs during riverine transport as well as attenuation between the nutrient source and the edge of the nearest stream. Delivery factors values shall be as specified by the department. In the Chesapeake Bay Watershed, the Chesapeake Bay Program Partnership's approved delivery factors shall be used.

"Department" means the Department of Environmental Quality.

"Director" means the Director of the Department of Environmental Quality or his designee.

"Exchange" means the transaction in which a person ~~buys~~ acquires released nutrient credits produced by a nutrient ~~credit-generating entity~~ credit-generating project.

"Field office technical guide" or "FOTG" means technical guides about conservation of soil, water, air, and related plant and animal resources and are the primary scientific reference for the U.S. Department of Agriculture's Natural Resource Conservation Service. These guides are used in each field office and are localized so that they apply specifically to the geographic area for which they are prepared.

"Hayland" means land that is used to grow a grass, legume, or other plants such as clover or alfalfa, which is cut and dried for feed.

"Highly erodible soils" means land that is defined as highly erodible by the Sodbuster, Conservation Reserve, and Conservation Compliance parts of the Food Security Act of 1985 (P.L. 99-198) and the Food, Agriculture, Conservation, and Trade Act of 1990 (P.L. 101-624). Lists of highly erodible and potential highly erodible map units are maintained in NRCS field office technical guide.

"HUC" means the hydrologic unit code.

"Impaired waters" means those waters identified as impaired in the 305(b)/303(d) Water Quality Assessment Integrated Report ~~(see 9VAC25-900-70)~~ prepared pursuant to § 62.1-44.19:5 of the State Water Control Law.

"Implementation plan" means a plan that has been developed to meet the requirements of 9VAC25-900-120 and is submitted as part of the application.

"Invasive plant species" means non-native plant species that are contained on DCR's ~~List of Invasive Alien Plant Species of Virginia (see 9VAC25-900-70).~~ Virginia Invasive Plant Species List.

"Innovative practice" means practices or BMPs not approved by the Chesapeake Bay Program Partnership or the Virginia Stormwater BMP Clearinghouse. Nutrient credits generated by innovative practices may only be certified as term credits.

"Landowner" means any person or group of persons acting individually or as a group that owns the parcel on which a nutrient credit-generating project is sited including: (i) the Commonwealth or any of its political subdivisions, including localities, commissions, and authorities; (ii) any public or private institution, corporation, association, firm, or company organized or existing under the laws of this or any other state or country; or (iii) any officer or agency of the United States.

"Land use controls" means legal measures or instruments that restrict the activity, use, and access to property.

"Land use conversion" means a change from a more intensive to less intensive land use resulting in nutrient reductions.

"Management area" means all contiguous parcels deeded to the same landowner that includes the site of the nutrient credit-generating ~~site~~ project within its boundaries. The term contiguous means the same or adjacent parcels that may be divided by public or private right-of-way. [~~The~~ For a public entity that owns or operates an MS4 and generates credits within the MS4 service area, the] management area ~~does not include publicly-owned roads or rights-of-way.~~ [~~for an MS4 generating nutrient credits~~] is the MS4 service area.

"Mitigation" means sequentially avoiding and minimizing impacts to the maximum extent practicable and then compensating for remaining unavoidable impacts of a proposed action.

"Mitigation bank" means a site providing off-site, consolidated compensatory mitigation that is developed and approved in accordance with all applicable federal and state laws or regulations for the establishment, use and operation of mitigation banks and is operating under a signed mitigation banking instrument.

"Mitigation banking instrument" means the legal document for the establishment, operation, and use of a stream or wetland mitigation bank.

"MS4" means a municipal separate storm sewer system as defined in 9VAC25-870-10.

"MS4 service area" means [(i) for Phase I MS4 permittees, the service area delineated in accordance with the permit issued pursuant to 9VAC25-870-380 A 3; and, (ii) for Phase II MS4 permittees,] the term as described in 9VAC25-890.

"Non-land use conversion" means practices, except for land use conversion, that are used by a nutrient credit-generating ~~entity~~ project to produce nutrient reductions.

"Nonpoint source pollution" or "nonpoint source" means pollution such as sediment, nitrogen, phosphorus, hydrocarbons, heavy metals, and toxics whose sources cannot be pinpointed but rather are washed from the land surface in a diffuse manner by stormwater runoff.

"NRCS" mean the U.S. Department of Agriculture's Natural Resource Conservation Service.

"Nutrient credit" or "credit" means a nonpoint source nutrient reduction that is certified pursuant to this chapter and expressed in pounds of phosphorus and nitrogen either (i) delivered to tidal waters when the credit is generated within the Chesapeake Bay Watershed or (ii) as otherwise specified when generated in the Southern Rivers watersheds. Nutrient credit does not include point source nitrogen credits or point source phosphorus credits as defined in § 62.1-44.19:13 of the Code of Virginia.

~~"Nutrient credit-generating entity" means an entity that implements practices for the generation of nonpoint source nutrient credits.~~

"Nutrient credit-generating project" or "project" means a project developed to reduce the load of nitrogen and phosphorous nonpoint source pollution in order to generate nutrient credits for certification pursuant to this chapter.

"Nutrient reductions" means the reduction in the load of nitrogen and phosphorous nonpoint source pollution.

"Owner" means the Commonwealth or any of its political subdivisions, including ~~but not limited to~~ sanitation district commissions and authorities and any public or private institution, corporation, association, firm, or company organized

or existing under the laws of this or any other state or country, or any officer or agency of the United States, or any person or group of persons acting individually or as a group that owns, operates, charters, rents, or otherwise exercises control over or is responsible for any nutrient credit-generating ~~entity~~ project.

"Pasture" means land that supports the grazing of domesticated animals for forages.

"Performance standards" means the minimum objectives or specifications required of a particular management practice by the department in order to assure predicted nutrient reductions will be achieved.

"Perpetual nutrient credits" or "perpetual credits" mean credits that are generated by practices that result in permanent nutrient reductions from baseline and certified as permanent in accordance with this chapter.

"Person" means any individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, governmental body, including a federal, state, or local entity as applicable, any interstate body or any other legal entity.

"Potential nutrient credits" means the possible credits generated by a nutrient credit-generating ~~entity~~ project as calculated pursuant to 9VAC25-900-110. These potential nutrient credits shall be expressed in terms of the estimated number of phosphorus and nitrogen credits generated.

"Redevelopment" means a project that includes new development on previously developed land.

"Registry" means the online Virginia Nutrient Credit Registry established and maintained by the department in accordance with § 62.1-44.1.19:20 D of the Code of Virginia.

"Released nutrient credit" means credits that the department has determined to be eligible for ~~exchange~~ placement on the Virginia Nutrient Credit Registry.

"Restoration" means the reestablishment of a wetland, stream, or other aquatic resource in an area where it previously existed. Wetland restoration means the reestablishment of wetland hydrology, soils, and vegetation in an area where a wetland previously existed. Stream restoration means the process of converting an unstable, altered, or degraded stream corridor, including adjacent areas and floodplains, to its natural conditions.

"Retrofit" means a project that provides improved nutrient reductions to previously developed land through the implementation of new BMPs or upgrades to existing BMPs.

"Site" means the physical location within the management area where the nutrient credit-generating ~~entity~~ project and its associated practices, both baseline and credit-generating, are located.

"Site protection instrument" means a deed restriction, conservation easement, or other legal mechanism approved by the department that provides assurance that the credits will be maintained ~~for the term of the credit.~~ in accordance with this chapter and the certification requirements.

"Southern Rivers watersheds" means the land areas draining to the following river basins: the Albemarle Sound, Coastal; the Atlantic Ocean, Coastal; the Big Sandy River Basin; the Chowan River Basin; the Clinch-Powell River Basin; the New Holston River Basin (Upper Tennessee); the New River Basin; the Roanoke River Basin; or the Yadkin River Basin~~, or those water bodies draining directly to the Atlantic Ocean~~.

"State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

"Steward" or "long-term steward" means any person who is responsible for implementation of the long-term management plan of a perpetual nutrient credit-generating project.

"Structural BMPs" means any ~~manmade~~ man-made stormwater control measure or feature that requires routine maintenance in order to function or provide the hydrologic, hydraulic, or water quality benefit as designed. Structural practices include ~~, but are not limited to~~ bioretention, infiltration facilities, wet ponds, extended detention, wet and dry swales, permeable pavement, rainwater harvesting, vegetated roofs, underground or surface chambers or filters, and other manufactured treatment devices (MTDs).

"T" means the soil loss tolerance rate as defined by the NRCS.

"Term nutrient credit" or "term credit" means nutrient reduction activities that generate credits for a determined and finite period of at least one year but no greater than five years.

"Total maximum daily load" or "TMDL" means the sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, natural background loading, and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs. ~~TMDL is not necessarily a daily load but may be expressed in other units of time.~~ TMDLs in Virginia are expressed as both a daily load and an annual load. For nutrient trading, ~~yearly~~ annual loads are most often utilized.

"Tributary" means those river basins for which separate tributary strategies were prepared pursuant to § 2.2-218 of the Code of Virginia and includes the Potomac, Rappahannock, York, and James River basins, and the Eastern Coastal Basin, which encompasses the creeks and rivers of the Eastern Shore of Virginia that are west of Route 13 and drain into

the Chesapeake Bay. For areas outside of the Chesapeake Bay Watershed, "tributary" includes the following watersheds: Albemarle Sound, Coastal; Atlantic Ocean, Coastal; Big Sandy; Chowan; Clinch-Powell; New Holston (Upper Tennessee); New River; Roanoke; and Yadkin.

"Urban lands" means lands characterized by developed areas with buildings, asphalt, concrete, suburban gardens, and a systematic street pattern. Classes of urban development include residential, commercial, industrial, institutional, transportation, communications, utilities, and mixed urban. Undeveloped land surrounded by developed areas, such as cemeteries, golf courses, and urban parks is recognized as urban lands.

"VACS BMP Manual" means the Virginia Agricultural Cost Share BMP Manual[~~(see 9VAC25-900-70)~~].

"Virginia Chesapeake Bay TMDL Watershed Implementation Plan," "Watershed Implementation Plan," or "WIP" means the Phase I watershed implementation plan strategy submitted by Virginia and approved by the U.S. Environmental Protection Agency (EPA) in December 2010 to meet the nutrient and sediment allocations prescribed in the Chesapeake Bay Watershed TMDL or any subsequent revision approved of EPA[~~(see 9VAC25-900-70)~~].

"Virginia Pollutant Discharge Elimination System permit" or "VPDES permit" means a document issued by the State Water Control Board pursuant to the State Water Control Law authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters and the use or disposal of sewage sludge.

"Virginia Stormwater Management Program" or "VSMP" means a program to manage the quality and quantity of runoff resulting from land-disturbing activities and includes such items as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, and enforcement, where authorized in the Stormwater Management Act and pursuant to 9VAC25-870, 9VAC25-880, or 9VAC25-890.

"Virginia Water Protection permit" or "VWP permit" means an individual or general permit issued by the board under § 62.1-44.15:20 of the Code of Virginia that authorizes activities otherwise unlawful under § 62.1-44.5 of the Code of Virginia or otherwise serves as Virginia's Section 401 certification.

"VPA" means Virginia Pollution Abatement.

"VPDES" means Virginia Pollutant Discharge Elimination System.

"VSMP authority" means a Virginia stormwater management program authority as defined in 9VAC25-870-10.

"VWP" means Virginia Water Protection.

"Water body with perennial flow" means a body of water that flows in a natural or man-made channel year-round during a year of normal precipitation as a result of groundwater discharge or surface runoff. Such water bodies exhibit the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

"Water Quality Guide" means Virginia's Forestry Best Management Practices for Water Quality ~~(see 9VAC25-900-70)~~.

"Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Part II
General Information

9VAC25-900-20. Authority and delegation of authority.

A. This chapter is issued under authority of § 62.1-44.19:20 of the Act.

B. The director may perform any act of the board provided under this ~~regulation~~ chapter except as limited by § 62.1-44.14 of the Code of Virginia.

9VAC25-900-30. Purpose and applicability.

A. The purpose of this chapter is to establish standards and procedures pertaining to the certification of nutrient credits that will be placed on the registry for exchange.

B. This chapter applies to all persons who submit an application for and to all persons that receive a certification of nutrient credits from the department in accordance with the Act and this chapter.

C. Nutrient credits from stormwater nonpoint nutrient credit-generating ~~entities~~ projects in receipt of a Nonpoint Nutrient Offset Authorization for Transfer letter from the department prior to ~~the effective date of this chapter~~ (insert the effective date of this chapter) shall be considered certified nutrient credits and shall not be subject to further nutrient credit certification requirements or to the credit retirement requirements of this chapter. However, such ~~entities~~ projects shall be subject to all other provisions of this chapter, including registration of nutrient credits under 9VAC25-900-90 and the requirements of Part IV (9VAC25-900-140 et seq.) of this chapter including inspection, reporting, and enforcement.

D. This chapter does not apply to the certification of point source nutrient credits that may be generated from effective nutrient controls or removal practices associated with the types of facilities or practices historically regulated by the board, such as water withdrawal and treatment and wastewater collection, treatment, and beneficial reuse.

E. This chapter does not apply to stream or wetland restoration projects constructed prior to July 1, 2005, as no usable nutrient reductions are deemed to be generated from these projects and, therefore, no nutrient credits can be certified.

9VAC25-900-40. Relationship to other laws and regulations.

A. Specific requirements regarding the use of nutrient credits are found in the following regulations and statutes:

1. Virginia Stormwater Management Program (VSMP) Regulation (9VAC25-870).

a. VSMP Individual Permits for Discharges from Construction Activities. As specified in § 62.1-44.19:21 B of the Act, those applicants required to comply with water quality requirements for land-disturbing activities operating under a construction individual permit issued pursuant to 9VAC25-870 may acquire and use perpetual nutrient credits placed on the registry for exchange.

b. VSMP Individual Permits for Municipal Separate Storm Sewer Systems. As specified in § 62.1-44.19:21 A of the Act, an MS4 permittee may acquire, use, and transfer nutrient credits for purposes of compliance with any wasteload allocations established as effluent limitations in an MS4 individual permit issued pursuant to 9VAC25-870. Such method of compliance may be approved by the department following review of a compliance plan submitted by the permittee that includes the use of nutrient credits and is in accordance with the provisions of § 62.1-44.19:21 A.

2. General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880). As specified in § 62.1-44.19:21 B of the Act, those applicants required to comply with water quality requirements for land-disturbing activities operating under a general VSMP permit for discharges of stormwater from construction activities issued pursuant to 9VAC50-880 may acquire and use perpetual nutrient credits placed on the registry for exchange.

3. General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (9VAC25-890). As specified in § 62.1-44.19:21 A of the Act, an MS4 permittee may acquire, use, and transfer nutrient credits for purposes of compliance with any wasteload allocations established as effluent limitations in an MS4 general permit issued pursuant to 9VAC25-890. Such method of compliance may be approved by the department following review of a compliance plan submitted by the permittee that includes the use of nutrient credits and is in accordance with the provisions of § 62.1-44.19:21 A.

4. Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation (9VAC25-31). As specified in § 62.1-44.19:21 C of the Act, owners of confined or concentrated animal feeding operations issued individual permits pursuant to 9VAC25-31 may acquire, use, and transfer credits for compliance with any wasteload allocations contained in the provisions of a VPDES permit. Such method of compliance may be approved by the department following review of a compliance plan submitted by the permittee that includes the use of nutrient credits.

5. General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Storm Water Associated with Industrial Activity (9VAC25-151). As specified in § 62.1-44.19:21 D of the Act, owners of facilities registered for coverage under 9VAC25-151 for the general VPDES permit may acquire, use, and transfer credits for compliance with any wasteload allocations established as effluent limitations in a VPDES permit. Such method of compliance may be approved by the department following review of a compliance plan submitted by the permittee that includes the use of nutrient credits.

6. General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia (9VAC25-820). Nutrient credits certified pursuant to this chapter may be acquired to offset mass loads of total nitrogen or total phosphorus discharged by new or expanded facilities regulated by 9VAC25-820.

B. This chapter shall not be construed to limit or otherwise affect the authority of the board to establish and enforce more stringent water quality-based effluent limitations for total nitrogen or total phosphorus in permits where those limitations are necessary to protect local water quality. The exchange or acquisition of credits pursuant to this chapter shall not affect any requirement to comply with such local water quality-based limitations.

9VAC25-900-50. Appeal process.

Any person applying to establish a nutrient credit-generating ~~entity~~ project or an owner of a nutrient credit-generating ~~entity~~ project aggrieved by any action of the department taken in accordance with this chapter, or by inaction of the department, shall have the right to review in accordance with the provisions of the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia).

9VAC25-900-60. Limitations, liability, and prohibitions.

A. ~~The department~~ Except to the extent it may be an owner as defined by this chapter, none of the following shall ~~not~~ have responsibility or liability for the performance of practices at a nutrient credit-generating ~~entity~~ project evaluated using the procedures established in this chapter: (i) the department, (ii) a VSMP authority, or (iii) any political subdivision of the Commonwealth.

B. Those persons with whom the department contracts, including those serving as technical evaluators on an advisory committee, are advisors to the department, and the department remains solely responsible for decisions made regarding implementation of this chapter.

C. For the purposes of this chapter, the certification of nutrient credits that are generated from practices funded in part or in whole by federal or state water quality grant funds is prohibited other than controls and practices under § 62.1-44.19:20 B 1 a of the Act; however, establishing baseline as specified in 9VAC25-900-100 may be achieved through the use of such grants.

D. The option to acquire nutrient credits for compliance purposes shall not eliminate any requirement to comply with local water quality requirements, including such requirements lawfully imposed by a locality or local MS4.

E. The issuance of a nutrient credit certification under this chapter does not convey any property rights of any sort or any exclusive privilege.

F. The issuance of a nutrient credit certification under this chapter does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

G. Nutrient credit certifications are not transferable except ~~after notice to the department~~ in accordance with 9VAC25-900-180. The department may require modification or revocation and reissuance of nutrient credit certifications to change the name of the owner of the nutrient credit-generating ~~entity~~ project and incorporate such other requirements as may be necessary under the State Water Control Law or the Clean Water Act.

H. No person shall offer for exchange nutrient credits except in compliance with the provisions of this chapter.

I. No nutrient credit shall be generated by practices previously implemented to comply with: (i) the requirements for a VPDES (9VAC25-31), VPA (9VAC25-32), VWP (9VAC25-210), or VSMP (9VAC25-870) permit; (ii) erosion and sedimentation control requirements pursuant to 9VAC25-840; or (iii) the requirements of the Chesapeake Bay Preservation Act pursuant to § 62.1-44.15:67-79 of the Code of Virginia.

J. Nutrient credit generation and use shall be contemporaneous with the applicable permit's compliance period.

9VAC25-900-70. [~~Documents and Internet accessible resources~~ (Reserved.)]

~~This chapter refers to documents and Internet accessible resources to be used by applicants in gathering information to be submitted to the department. Therefore, in~~ [~~In order to assist the applicants, the citations for the documents and the uniform resource locator (URL) for the Internet resources referenced in this chapter~~] ~~are as follows:~~ [~~are:~~

~~1.~~] ~~Virginia Chesapeake Bay TMDL Watershed Implementation Plan, November 29, 2010, Department of Environmental Quality. Available at the following Internet address: http://www.deq.virginia.gov/Portals/0/DEQ/Water/TMDL/Baywip/vatmdlwipphase1.pdf. 2.~~ [~~Virginia Agricultural BMP Cost Share BMP Manual, Program Year~~] ~~2014, July 2013,~~ [~~2018, Department of Conservation and Recreation, Division of Soil and Water Conservation, Richmond, Virginia. Available at the following Internet address:~~] ~~http://dswcapps.dcr.virginia.gov/htdocs/agbmpman/esmanual.pdf.~~ [~~http://dswcapps.dcr.virginia.gov/htdocs/agbmpman/agbmptoc.htm.~~]

~~3. List of Invasive Alien Plant Species of Virginia,~~ [~~2. Virginia Invasive Plant Species List, Department of Conservation and Recreation, Division of Natural Heritage, Richmond, Virginia. Available at the following Internet address: http://www.dcr.virginia.gov/natural_heritage/invsppdflist.shtml.~~]

~~4.~~ [~~3. Field Office Technical Guide, Natural Resources Conservation Service, United States Department of Agriculture, Washington, D.C. Available at the following Internet address: http://efotg.sc.egov.usda.gov/efotg_locator.aspx.~~]

~~5. 305(b)/303(d) Water Quality Assessment Integrated Report, 2012 , Department of Environmental Quality. Available at the following Internet address: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityAssessments/2012305(b)303(d)IntegratedReport.aspx.~~

~~6. Virginia's Forestry Best Management Practices for Water Quality,Fifth Edition 2011, Department of Forestry. Available at the following Internet address: http://www.dof.virginia.gov/print/water/BMP/Manual/2011_Manual_BMP.pdf.~~

Part III

Administrative and Technical Criteria

9VAC25-900-80. Procedure for application for certification of nutrient credits.

A. ~~Application submittal.~~ An applicant requesting certification of nutrient credits shall submit an application to the department in accordance with this part. Applicants requesting a renewal of a certification of term nutrient credits shall submit an application to the department at least 60 days prior to the expiration of the nutrient credit term. If the renewal application is not received by the department at least 60 days prior to the expiration of the nutrient credit term, the application will be deemed a new application. The application or renewal application shall be in the form required by the department including signature in accordance with 9VAC25-900-130 and shall include the following elements:

1. A brief narrative description of the nutrient credit-generating ~~entity~~ project.

2. Contact information for the applicant including name, address, and telephone number.

3. Contact information for the nutrient credit-generating ~~entity~~ project, including the ~~entity's~~ project's mailing address, street address, telephone number, and the contact person's name and email address.

4. Status of the applicant as owner, co-owner, operator, or lessee of the nutrient credit-generating ~~entity~~ project or the site on which the ~~entity~~ project is located. The applicant shall provide documentation of the applicant's right to exercise control of the nutrient credit-generating ~~entity or~~ project and the site on which it is located for the purposes of generating and maintaining the proposed nutrient credit-generating ~~entity.~~ project via a title, deed, grant, lease, or easement agreement. Evidence of such documentation must be recorded in the property chain of title and must identify contact information for the applicant or long-term steward for perpetual credits. If the applicant cannot demonstrate control, those parties who singularly or in conjunction with the applicant exercise control over the nutrient credit-generating ~~entity~~ project or the site on which it is located shall be required to jointly apply for nutrient credit certification with the applicant.

5. The name, mailing address, telephone number, and responsibilities of all known contractors responsible for any operational or maintenance aspects of the nutrient credit-generating ~~entity~~ project.

6. The number and type of potential nutrient credits to be generated and supporting information including (i) a description of the baseline practices in place within the management area and the nutrient credit-generating ~~entity's~~ project's practices that may result in generation of nutrient credits beyond baseline requirements; (ii) the potential nutrient credit calculation including the efficiencies and factors used; and (iii) the associated documentation supporting the potential nutrient credits calculation. Baseline shall be determined in accordance with the requirements of 9VAC25-900-100. The number of potential nutrient credits shall be as calculated in accordance with 9VAC25-900-110.

7. A topographic map, survey, or another type of map deemed acceptable by the department that delineates the property boundary of the management area and clearly shows the location of ~~the~~ all practices, including nutrient credit-generating ~~entity~~ projects and any baseline practices.

8. A description of current site conditions with ~~photos~~ photographs.

9. The 8-digit, 10-digit, and 12-digit HUC in which the nutrient credit-generating ~~entity~~ project is located.

10. For land use conversion projects, [~~provide~~] documentation of the condition of the land and land use controls in place as of the date specified in 9VAC25-900-100 E noting any changes in the condition of the land or land use controls since that date.

11. An implementation plan that meets the requirements of 9VAC25-900-120.

12. For structural BMPs ~~, the~~ or restoration projects required to submit and maintain financial assurance in accordance with 9VAC25-900-230, the draft financial assurance documents and financial assurance cost estimate calculated pursuant to Part VI (9VAC25-900-230 et seq.) of this chapter. As required by the schedule of release provisions of subsection B of 9VAC25-900-90, prior to the release of nutrient credits all required financial assurance mechanisms shall be established per Part VI (9VAC25-900-230 et seq.) of this chapter and approved by the department.

13. The appropriate fee required pursuant to Part V (9VAC25-900-190 et seq.) of this chapter.

14. ~~The~~ For perpetual credits, a draft of the proposed site protection instrument ~~or instruments~~ for ~~perpetual credits~~ the site on which the nutrient credit-generating project is located. If the landowner is not an individual, documentation will be required establishing that the person executing the protection instrument has the authority to do so.

15. A description of other permits and approvals that may be necessary to operate the nutrient credit-generating ~~entity~~ project.

16. A description of any state or federal water quality grants received for water quality actions in the management area.

17. For perpetual credits, ~~notarized proof that all management area property used to generate credits is held with clear title by the owner and free of any unsubordinated liens~~ [demonstration by] the applicant [~~shall demonstrate~~] that the site on which the nutrient credit-generating project is located is held with title free from all defects, liens, and encumbrances that would interfere with or be in conflict with the establishment and operation of the nutrient credit-generating project. The demonstration may include documentation of the subordination of property interests (e.g., mineral rights, mortgages, easement) if the department determines that the property interest would interfere with or be in conflict with the establishment and operation of the nutrient credit-generating project.

18. For term credits, the desired term of the credit shall be submitted; however, the term shall not exceed five-years.

~~18.~~ 19. A tax map showing the management area and adjacent parcels.

20. For nutrient credit-generating projects using innovative practices, the department may request submittal of additional information in order to review the innovative practice. This additional information may include application provisions that are deemed relevant to the innovative practice.

~~19.~~ 21. Any other information deemed necessary by the department.

B. Applications for certification of nutrient credits based on nutrient reductions from practices other than land conversion shall be processed in accordance with this subsection.

1. Administrative ~~completeness~~ review. Upon receiving an application pursuant to subsection A of this section, the department shall ~~conduct an administrative completeness review prior to the technical review and respond~~ perform a cursory review of the application within 30 calendar days of ~~application~~ receipt. If the application ~~is not administratively complete~~ does not contain all the necessary elements in accordance with subsection A of this section, the department shall notify the applicant of the ~~administrative deficiencies. If the application is administratively complete,~~ missing elements. Otherwise, the department shall notify the applicant that the application will be ~~technically reviewed~~ evaluated for nutrient credit certification.

~~C.~~ 2. Public notification. ~~The~~ After receipt of an application, the department shall post a public notification of the proposed nutrient credit-generating ~~entity~~ project on its website. The public notification shall include the name of the applicant, the location of the nutrient credit-generating project, and a description of the practices utilized. [The public notification shall also include the name and contact information for a department staff person.]

~~D.~~ 3. Technical ~~review~~ evaluation. Once the application ~~is deemed administratively complete~~ contains all the required elements, the department shall perform a technical ~~review~~ evaluation of the application. As part of the ~~technical review~~ evaluation, additional information may be required and the [~~nutrient credit-generating entity project and management area may be visited~~ department shall, if warranted, perform a site visit of the proposed nutrient credit-generating project]. Additionally, ~~if~~ the department ~~chooses,~~ may convene a certification advisory committee ~~may be convened~~ to provide input regarding the review of an application such as those which incorporate the use of innovative practices by the nutrient credit-generating project. Within ~~90~~ 120 days of the ~~receipt of an administratively complete application~~ department's notification that the application will be evaluated, the department shall notify the applicant of the status of the ~~technical review~~ evaluation of the application and, for innovative practices, provide a projected processing timeline for the application.

~~E. Technical completeness~~ 4. Completeness. The nutrient credits shall not be certified until the application is ~~administratively and technically~~ complete; however, a determination that an application is complete shall not require the department to issue the nutrient credit certification.

a. An application for nutrient credit certification is ~~technically~~ complete when the department receives an application in accordance with subsection A of this section, and the application~~,~~ and any supplemental information fulfills the application requirements to the department's satisfaction.

~~F.~~ b. For applications for certification of nutrient credits generated from innovative practices, a second public notification shall be provided after the application is complete and prior to the issuance of the nutrient credit certification. The department shall post on its website a public notification of its intent to issue a nutrient credit certification, and the notification shall include the name of the applicant, the location of the nutrient credit-generating project, a description of the innovative practice, and the proposed quantity of term nutrient credits to be certified. [The public notification shall also include the name and contact information for a department staff person.]

5. Nutrient credit certification. ~~The department shall notify the applicant of approval of the nutrient credit certification and provide any applicable conditions required for credit certification including retirement and release of credits in accordance with 9VAC25-900-90, or the department shall notify the applicant that the~~

~~nutrient credit-generating entity does not qualify for any certified credits pursuant to the requirements of this part.~~ Once the application is deemed complete, the department shall either (i) deny the application and notify the applicant that the nutrient credit-generating project does not qualify for any certified credits pursuant to the requirements of this chapter or (ii) approve the application by issuance of a nutrient credit certification and provide any applicable conditions including the schedule of release and retirement of nutrient credits in accordance with 9VAC25-900-90.

C. Applications for nutrient credit certification based on nutrient reductions solely from land conversion practices shall be processed in accordance with this subsection.

1. Application review. Within 30 days of receipt of an application, the department shall, if warranted, conduct a site visit. Within 45 days of receipt of an application, the department shall either determine that the application is complete or request additional specific information from the applicant. A determination that an application for a land conversion project is complete shall not require the department to issue a nutrient credit certification.

2. Public notification. After receipt of the application, the department shall post a public notification of the proposed nutrient credit-generating project on its website. The public notification shall include the name of the applicant, the location of the nutrient credit-generating project, and a description of the land conversion practice. [The notification shall also include the name and contact information for the department staff person.]

3. Nutrient credit certification. Within 15 days of the department's determination that the application is complete pursuant to subdivision 1 of this subsection, the department shall either (i) deny the application and notify the applicant that the nutrient credit-generating project does not qualify for any certified credits pursuant to the requirements of this chapter or (ii) approve the application by issuance of a nutrient credit certification and provide any applicable conditions including the schedule of release and retirement of nutrient credits in accordance with 9VAC25-900-90.

9VAC25-900-90. Nutrient credit release and registration.

A. Retirement of credits.

1. Pursuant to the requirements of § 62.1-44.19:20 of the Act, 5.0% of the total credits certified will be retired by the department at the time of nutrient credit certification and will not be placed on the registry for exchange.

2. When phosphorus credits are acquired ~~for compliance with 9VAC25-870,~~ in accordance with 9VAC25-870-69, the associated nitrogen credits generated by the nutrient credit-generating ~~entity~~ project will be retired and removed from the registry by the department.

3. When nitrogen credits are ~~exchanged~~ acquired for purposes other than compliance with ~~9VAC25-870~~ 9VAC25-870-69, the associated phosphorus credits generated by the ~~nutrient credit entity~~ nutrient credit-generating project shall not be available for compliance under ~~9VAC25-870~~ 9VAC25-870-69.

4. Except as limited by this subsection, associated nitrogen and phosphorus credits generated by a nutrient credit-generating project may be exchanged independently.

B. Schedule of release of nutrient credits. The department shall establish a schedule for release of credits as follows:

1. For nutrient credit-generating ~~entities~~ projects using land use conversion, 25% of the credits will be released by the department after the department has verified completion of the conditions of the nutrient credit certification. [For afforestation projects, an additional 25% of credits will be released by the department after the site has been planted with a minimum of 400 woody stems per acre.] The remaining [~~75%~~ balance] of credits will be released by the department after it is satisfied that the implementation plan's performance criteria required pursuant to 9VAC25-900-120 has been achieved. When a request for credit release is made concurrently with the application for nutrient credit certification from land conversion practices, the concurrent 25% initial release[, and additional 25% release if planting has occurred,] shall be processed on the same timeline as the application as provided in 9VAC25-900-80 C. When the request for credit release is from a previously approved land conversion project, the department shall schedule a site visit, if warranted, within 30 days of the request and shall deny, approve, or approve with conditions the release of the remaining 75% of the nutrient credits within 15 days of the site visit or determination that a site visit is not warranted.

2. For nutrient credit-generating projects using wetland or stream restoration, after construction 25% of the credits may be released by the department after the department has verified completion of the conditions of the nutrient credit certification. Every monitoring year thereafter, 25% of the credits may be released if all performance standards are met, the area or channel is stable, and, for streams, evidence is presented that a bankfull event occurred within the monitoring year. For streams, if a bankfull event did not occur, but performance standards are met and the channel is stable, 10% of the credits may be released. No additional credits will be released after the fourth monitoring year until a bankfull event has occurred. After the fourth monitoring year, if a bankfull event occurs, the channel is stable, and all performance standards are met, 25% of

the credits may be released that monitoring year, not to exceed the remaining credits available. The schedule for release of credits shall also require, prior to the release of credits, the approval of any required financial assurance mechanism established pursuant to Part VI (9VAC25-900-230 et seq.) of this chapter.

3. For nutrient credit-generating ~~entities~~ projects using practices other than land use conversion or wetland or stream restoration, the schedule for release of credits will be determined by the department on a case-by-case basis and provided to the applicant with the nutrient credit certification. For ~~entities~~ projects using structural BMPs, the schedule shall also require, prior to release of credits, the approval of ~~the~~ any required financial assurance mechanism established pursuant to Part VI (9VAC25-900-230 et seq.) of this chapter.

C. Registration of nutrient credits. Credits will be placed on the registry and classified as term or perpetual credits by the department. The registry will also indicate the number of credits that have been released for exchange. Only credits released by the department are available for exchange.

[D. Exchange of nutrient credits.] Exchange of a credit released by the department is:

1. Subject to the provisions of § 62.1-44.15:35, 62.1-44.19:15, or 62.1-44.19:21 of the Code of Virginia; and

2. Where necessary to ensure compliance with local water quality requirements, conditioned as follows:

a. Within the Chesapeake Bay Watershed, the exchange of credits within an area subject to an approved local TMDL for total phosphorus or total nitrogen with allocations more stringent than the Chesapeake Bay Watershed TMDL shall be limited to those credits generated upstream of where the discharge reaches impaired waters ~~and within the approved local TMDL watershed~~.

b. Within the Southern Rivers watersheds, the exchange of credits within an area subject to an approved local TMDL for total phosphorus or total nitrogen shall be limited to those credits generated upstream of where the discharge reaches impaired waters ~~and within the approved local TMDL watershed~~.

c. Within an area with waters impaired for dissolved oxygen, benthic community, [chlorophyll-a,] or nutrients but with no approved local TMDL, the exchange of credits shall be limited to those credits generated in accordance with the following hierarchy:

(1) Upstream of where the discharge reaches impaired waters, if credits are available;

(2) Within the same 12-digit HUC, if credits are available;

(3) Within the same 10-digit HUC, if credits are available;

(4) Within the same 8-digit HUC, if credits are available;

(5) Within an adjacent 8-digit HUC within the same tributary, if credits are available; or

(6) Within the same tributary.

[d.] The hierarchy of [~~this~~] subdivision [D 2 c of this section] shall not apply [when:

(1) The department determines through issuance of a VPDES permit that local water quality cannot be protected unless exchange of credits are restricted to upstream of where the discharge reaches impaired waters; or,

(2) It has been demonstrated to the department's satisfaction that [~~(i) the~~

(a) The] water quality impairment is not likely caused by nutrients; [~~(ii) the~~ or,

(b) The] use of credits would not reasonably be considered to cause or contribute to the impairment[~~; or (iii) the department determines through issuance of a VPDES permit that local water quality cannot be protected unless exchange of credits are restricted to upstream of where the discharge reaches impaired waters~~].

9VAC25-900-100. Establishing baseline.

A. Practices for establishing baseline must be in place prior to the generation of any credits by a nutrient credit-generating ~~entity~~ project except in the case of land use conversion as described in subsection E of this section. The practices for establishing baselines, as provided in this section, shall be implemented and properly maintained for each type of operation within the management area. Baselines are applicable statewide for nutrient credit-generating ~~entities~~ projects including those located in either the Chesapeake Bay Watershed or the Southern Rivers watersheds. [~~Baselines~~ Baseline] practices are, at a minimum, in accordance with the requirements of the WIP or an approved TMDL, whichever is more stringent.

B. ~~Agricultural cropland~~ Cropland, hayland, and pastures. ~~The baseline for agricultural management areas are those practices implemented to achieve a level of reduction assigned in the WIP or an approved TMDL.~~ Baselines for cropland, hayland, or pastures within the management area shall be established in accordance with ~~either~~ subdivision 1, 2, or 3 of this subsection.

1. The owner holds a valid Certificate of Resource Management Plan Implementation for the management area that has been issued pursuant to the Resource Management Plans regulation (4VAC50-70).

2. If the owner does not hold a valid Certificate of Resource Management Plan Implementation for the management area, ~~he~~ the owner shall implement the following practices for establishing baseline:

a. Soil conservation. Soil conservation practices for the management area shall be implemented and maintained to achieve a maximum soil loss rate not to exceed "T" and to address gross erosion when it is present as gullies or other severely eroding conditions.

b. Nutrient management. Implementation and maintenance of the nutrient management practices required by the nutrient management plan written by a certified nutrient management planner pursuant to the Nutrient Management Training and Certification Regulations (4VAC50-85).

c. Riparian buffer. A woodland or grass riparian buffer shall be installed and maintained around all water bodies with perennial flow within the management area and shall be installed and maintained along all water bodies with perennial flow bordering the management area. The riparian buffer shall be a minimum width of 35 feet as measured from the top of the channel bank to the edge of the cropland, hayland, or pasture and in accordance with DCR Specifications for NO. FR-3 or DCR Specifications for NO. WQ-1 contained in the VACS BMP Manual.

d. Cover crop. For croplands, cover crops shall be planted to meet the standard planting date and other specifications in accordance with DCR Specifications for NO. SL-8B contained in the VACS BMP Manual. This requirement applies to all croplands where summer annual crops are grown and the summer annual crop receives greater than a total of 50 pounds per acre of nitrogen application from any nutrient source; however, if the cropland is planted to winter cereal crops for harvest in the spring, then cover crops do not need to be planted on these croplands during that production year.

e. Livestock water body exclusion. For pastures or when livestock are present within the management area, livestock exclusion fencing shall be placed around perennial streams, rivers, lakes, ponds, or other water bodies having perennial flow. This exclusionary fencing shall be constructed in accordance with DCR Specification NO. [~~WP-2~~ WP-2W] contained in the VACS BMP Manual in order to restrict livestock access to the water body. Livestock shall be provided with an alternative watering source. The livestock exclusion fencing shall be placed at least 35 feet from the top of the channel bank and this exclusion zone shall contain the riparian buffer required by subdivision 2 c of this subsection. Access points for livestock watering or crossing over a water body shall be a hardened surface constructed to DCR Specifications for NO. [~~WP-2~~ WP-2W] contained in the VACS BMP Manual and shall be fenced to limit livestock access to the water body at the crossing point. Ponds that have been specifically built for the purpose of livestock watering and that do not have perennial flow through an overflow pipe or spillway are not required to meet the provisions of this subdivision 2 e.

3. The department may approve a load-based baseline determination equivalent to full implementation of the practices identified in subdivision 2 of this subsection.

C. Agricultural animal feeding operations. Baselines for agricultural animal feeding operations within the management area shall be established in accordance with either subdivision 1 or 2 of this subsection:

1. The animal feeding operation ~~within the management area has~~ is in compliance with a valid VPDES or VPA permit in compliance with the board's regulations.

2. For animal feeding operations excluded from or not required to hold a VPDES or VPA permit under the board's regulations, the practices for establishing baseline shall be implemented and properly maintained as required in this subdivision 2.

a. Implementation and maintenance of the nutrient management practices required by the nutrient management plan written by a certified nutrient management planner pursuant to the Nutrient Management Training and Certification Regulations (4VAC50-85).

b. For animal feeding operations, except confined poultry operations, a storage facility designed and operated to prevent point source discharges of pollutants to state waters except in the case of a storm event greater than a 25-year/24-hour storm and to provide adequate waste storage capacity to accommodate periods when the ground is frozen or saturated, periods when land application of nutrients should not occur due to limited or nonexistent crop nutrient uptake, and periods when physical limitations prohibit the land application of waste shall be implemented and maintained.

c. For confined poultry operations, storage of poultry waste according to the nutrient management plan and in a manner that prevents contact with surface water and groundwater. Poultry waste that is stockpiled outside of the growing house for more than 14 days shall be kept in a facility or at a location that provides adequate storage. Adequate storage management practices shall meet the following minimum requirements:

(1) The poultry waste shall be covered to protect it from precipitation and wind.

(2) Stormwater shall not run onto or under the area where the poultry waste is stored.

(3) The ground surface of the poultry waste storage area shall have a minimum of two feet separation distance to the seasonal high water table. If poultry waste is stored in an area where the seasonal high groundwater table lies within two feet of the ground surface, the storage area shall be underlain by a low-permeability, hard-surfaced barrier such as concrete or asphalt.

(4) For poultry waste that is not stored inside or under a roofed structure, the storage area must be at least 100 feet from any surface water, intermittent drainage, wells, sinkholes, rock outcrops, and springs.

D. Urban practices. ~~Baselines for urban development are applicable to the entire management area.~~ Achievement of baseline for new development, redevelopment, or retrofits to existing development shall be required prior to generation of credits. These baselines are:

1. For new development and redevelopment, baseline shall be achieved through compliance with the post-construction water quality design criteria requirements of the Virginia Stormwater Management Program (VSMP) Regulation under 9VAC25-870-63. Additionally, for development in a locality with a local stormwater management design criteria more stringent than 9VAC25-870-63, baselines shall be achieved through compliance with the local stormwater management ordinance.

2. For retrofits within the Chesapeake Bay Watershed, baseline shall be at a level necessary to achieve the nutrient reduction assigned in the urban sector of the WIP or the approved local TMDL, whichever is more stringent.

3. For retrofits within the Southern Rivers watersheds and within a watershed with an approved TMDL with total phosphorus or total nitrogen allocations, baselines shall be at a level necessary to achieve reductions of the approved TMDL. For all other retrofits within the Southern Rivers watersheds, baseline shall be achieved through compliance with the post-construction water quality design criteria requirements for development on prior developed lands pursuant to 9VAC25-870-63 A 2.

4. [~~For~~ No credits may be certified for] a nutrient credit-generating project owned by an MS4 permittee [~~, baseline shall only be achieved when~~ and located within the permittee's MS4 service area until] the level of nutrient reduction required by the WIP or approved TMDL, whichever is more stringent, is achieved for the entire MS4 service area. MS4 permittees generating credits for exchange [~~outside the MS4 service area~~] shall have an accounting system demonstrating that the exchanged credits are not used to satisfy the MS4 permit requirements.

E. Land use conversions. Baselines for land use conversion shall be established using the preconversion land use. The preconversion land use shall be based on the land use as of (i) July 1, 2005, for a nutrient credit-generating ~~entity~~ project located within the Chesapeake Bay Watershed; (ii) the date of the approved TMDL for a nutrient credit-generating ~~entity~~ project located within a TMDL watershed but not within the Chesapeake Bay Watershed; or (iii) July, 1, 2009, for a nutrient credit-generating ~~entity~~ project not within an approved TMDL watershed or the Chesapeake Bay Watershed.

F. Stream or wetland restoration. Baseline for stream restoration shall be established using the pre-restoration condition of the stream. Baseline for wetland restoration shall be established on a case-by-case basis, depending on the current land use of the proposed wetland restoration area.

G. Other nutrient credit-generating ~~entities~~ projects. The department shall establish baselines for other nutrient credit-generating ~~entities~~ projects not otherwise regulated by subsections B through ~~E~~ F of this section. The practices necessary for establishing baseline at these other nutrient credit-generating ~~entities~~ projects shall be in accordance with the requirements of the WIP or the approved TMDL and shall utilize the best available scientific and technical information regarding the practices.

9VAC25-900-110. Credit calculation procedures.

A. Pursuant to this section, the applicant shall calculate the potential nutrient credits generated by the practices implemented at the nutrient credit-generating ~~entities~~ projects. The applicable delivery factors, dependent upon the tributary in which the nutrient credit-generating ~~entity~~ project is located, shall be applied when calculating the potential credits generated.

B. For agricultural practices, except land use conversion, the potential nutrient credits shall be calculated using removal efficiencies for practices approved by the department. In the Chesapeake Bay Watershed, these practices shall be approved by the department based on the efficiencies assigned by the Chesapeake Bay Program. In the Southern Rivers watersheds, these practices shall be approved by the department based on submitted calculations and demonstrations. The standards and specifications for implementation of the practices will be established by the department and shall be in accordance with the VACS BMP Manual or the FOTG, as applicable.

C. For urban practices, the potential nutrient credits shall be calculated using the applicable removal efficiencies pursuant to 9VAC25-870-65 or using the best available scientific and technical information available at the time of nutrient credit certification as approved by the department. Limitations on potential nutrient credits from certain BMPs are:

1. In the Chesapeake Bay Watershed, nutrient load reductions from practices in place prior to July 1, 2005, may not be used to generate credits. Removal efficiencies shall be based upon those efficiencies approved by the Chesapeake Bay Program partnership where applicable. These efficiencies shall be reviewed at the time of certification renewal and adjusted as necessary based upon changes made by the Chesapeake Bay Program Partnership.

2. In the Southern Rivers watersheds, nutrient load reductions from practices in place prior to July 1, 2009, may not be used to generate credits.

D. For land use conversions, conversion of land to a more intensive land use activity will not generate nutrient credits. The number of potential nutrient credits shall be determined by calculating the nutrient credits per acre and multiplying that number by the total acreage that will undergo land use conversion. The nutrient credits per acre is equal to the amount calculated by subtracting the load per acre of nutrient nonpoint source pollution for the proposed land use after conversion from the load per acre for the preconversion land use. The values used for the loadings per acre in this calculation shall be based on the applicable loading levels provided in the WIP or the approved TMDL, where applicable. The preconversion land use shall be based on the land use as of the date specified in 9VAC25-900-100 E. The load per acre for the preconversion land use shall reflect the implementation of any applicable baseline practices necessary to comply with 9VAC25-900-100 B, C, and D. No credits shall be generated from the conversion of land within 35 feet of a water body with perennial water flow as measured from the top of the channel bank.

E. For wetland or stream restoration, an existing conditions assessment survey will be completed prior to restoration activities to use as a pre-restoration condition (baseline pursuant to of 9VAC25-900-100 F) and will be used for comparison to post-restoration conditions. The potential number of credits shall be determined by applying protocols or guidance on a case-by-case basis using the best available scientific and technical information, as approved by the department.

F. For a practice not previously approved by the department, the department will perform a case-by-case review in order to calculate the number of potential nutrient credits generated. The owner shall submit the removal efficiency calculation information for the practice and the calculation of the potential number of credits generated using that efficiency. The department may also request that the submittal include requirements for demonstration projects, the collection of sufficient data to evaluate the results, and any other information the department deems necessary to determine the validity of the credits. In the Chesapeake Bay Watershed, for a practice not approved by the Chesapeake Bay Program Partnership, the department will perform a case-by-case review in order to calculate the number of potential nutrient credits generated on a term basis.

9VAC25-900-120. Implementation plan.

A. The implementation plan submitted pursuant to 9VAC25-900-80 shall provide information detailing how the nutrient credit-generating ~~entity~~ project will generate credits for the term of the credits. The implementation plan will include the applicable information as required in subsections B through ~~I~~ J of this section.

B. For all nutrient credit-generating ~~entities~~ projects, the implementation plan shall include:

1. An operation and maintenance plan that provides a description and schedule of operation and maintenance requirements and detailed written specifications and process diagrams for the practices used at the nutrient credit-generating ~~entity~~ project. The plan must be adhered to for the term of the credits and shall include a description of site management activities to be performed after meeting all performance standards to ensure long-term sustainability of the site.

2. The performance standards that shall be used to evaluate whether the nutrient credit-generating ~~entity~~ project is generating credits as calculated in 9VAC25-900-110.

3. Applicable requirements for the project required pursuant to Part IV (9VAC25-900-140 et seq.) of this chapter.

C. For nutrient credit-generating ~~entities~~ projects utilizing managed afforestation land use conversion, the implementation plan shall also include:

1. A project plan submitted in the form required by the department and prepared by a person trained in (i) forestry management, (ii) nutrient management, or (iii) other applicable land management training that includes an understanding of whole land management planning. The project plan shall include ~~, but is not limited to~~ (i) methods for invasive plant species control and eradication if woody invasive plant species impacts 5.0% or more of the nutrient credit-generating ~~entity's~~ project's acreage; (ii) a requirement that any harvesting of timber shall adhere to best management practices as set forth by ~~DOF's~~ Department of Forestry's Water Quality Guide and

any other applicable local, state, or federal laws or requirements; (iii) the land management goals; (iv) a statement that no fertilizer is to be used on the nutrient credit-generating ~~entity's~~ project's land conversion acreage for the term of the credit generated; (v) a planting plan to include size, species, and spacing of trees; and (vi) any planting phases planned for the project if the area will not be planted all at one time, but will be planted in different phases. Additionally, if timbering is planned within the land conversion area, a copy of the timbering plan shall be submitted to the department at least 90 days prior to the occurrence of any land disturbance or timbering.

2. Provisions for planting forests to achieve an initial survival density of a minimum of 400 deciduous tree or evergreen tree woody stems per acre including any noninvasive volunteers. Survival of planted deciduous trees shall not be established until the start of the second complete growing season following planting. Survival of planted evergreen trees may be established after completion of the first complete growing season following planting. [Survival of mixed specie plantings with a minimum of 200 evergreen trees per acre may be established after completion of the first complete growing season following planting.]

3. A description of agricultural baseline requirements implemented in accordance with 9VAC50-900-100 B and C that apply to any remaining portions of the management area that are not undergoing land use conversion.

4. Performance standards and reporting procedures demonstrating ongoing compliance with the baseline requirements of 9VAC25-900-100 B and C.

D. For nutrient credit-generating ~~entities~~ projects utilizing natural succession land use conversion, the implementation plan shall also include provisions for:

1. Forests to achieve an initial density of a minimum of 400 noninvasive woody stems per acre.

2. Invasive plant species control and eradication if woody invasive plant species impacts 5.0% or more of the nutrient credit-generating ~~entity's~~ project's acreage.

3. A description of agricultural baseline requirements implemented in accordance with 9VAC25-900-100 B and C that apply to any remaining portions of the management area not undergoing land use conversion.

4. Performance standards for demonstrating ongoing compliance with the agricultural baseline requirements of 9VAC25-900-100 B and C.

E. For nutrient credit-generating ~~entities~~ projects utilizing other land use conversion not subject to either subsection C, D, or G of this section, the implementation plan shall also include:

1. Description of the land use conversion project and its implementation and maintenance criteria.

2. Description of the applicable baseline practices implemented in accordance with 9VAC25-900-100 for the management area including the nutrient credit-generating ~~entity~~ project.

3. Performance standards and reporting procedures demonstrating ongoing compliance with the baseline practices requirements of 9VAC25-900-100.

F. For nutrient credit-generating ~~entities~~ projects utilizing non-land use conversion agricultural practices, the implementation plan shall also include:

1. A description of the entire management area. This description shall include (i) the acreage and use including descriptions for the proposed practices of the nutrient credit-generating ~~entity~~ project and baseline area ~~or areas~~ ; (ii) water features including all streams, ponds, lakes, and wetlands; (iii) environmentally sensitive sites as defined in 4VAC50-85-10; (iv) areas with highly erodible soils; and (v) the current agricultural operations, crops, or animal facilities.

2. Copies of the current nutrient management plans developed by a certified nutrient management planner and approved by the department and any soil conservation plans completed by a certified conservation planner.

3. Information on the location and status of all existing and proposed BMPs including implementation schedules, lifespan, and maintenance procedures for each BMP that constitutes the baseline requirements.

G. For nutrient credit-generating ~~entities~~ projects utilizing ~~existing~~ approved wetland and stream mitigation projects pursuant to § 62.1-44.15:23 of the Code of Virginia, the implementation plan shall also include:

1. A copy of the approved mitigation banking instrument.

2. A plan view map clearly delineating and labeling areas to be considered for credit conversion.

3. A spreadsheet or table listing each labeled area. For each labeled area, the table shall include:

a. The type of eligible land use conversion or restoration practice;

b. The acreage or linear feet of the area;

c. The available mitigation credits;

d. The potential nutrient credits; and

e. The ratio of mitigation credits to nutrient credits.

4. Documentation that complies with the department-approved procedure to ensure credits are not used for both wetland or stream credit and nutrient credit purposes. ~~This documentation shall include the approval by the mitigation banking Interagency Review Team.~~

5. Documentation shall include written approval from the Interagency Review Team, which oversees stream and wetland mitigation projects pursuant to 33 CFR 332.8 and § 62.1-44.15:23 of the Code of Virginia, to establish a nutrient credit generating site within an approved mitigation bank.

H. For nutrient credit-generating projects utilizing proposed new wetland or stream restoration projects not subject to 33 CFR 332.8 and § 62.1-44.15:23 of the Code of Virginia, the implementation plan shall also include, where appropriate to the type of restoration and project:

1. Certification that the owner will obtain all appropriate permits or other authorizations needed to construct and maintain the restoration activities, prior to initiating work in state waters.

2. An initial wetland restoration plan, which shall include the following:

a. The goals and objectives in terms of proposed nutrient reductions and restoration activities;

b. A detailed location map (e.g., a U.S. Geologic Survey topographic quadrangle map) including latitude and longitude to the nearest second and the hydrologic unit code (HUC) at the center of the site;

c. A description of the surrounding land use;

d. A hydrologic analysis, including a draft water budget based on expected monthly inputs and outputs that will project water level elevations for a typical year, a dry year, and a wet year;

e. The groundwater elevation data or, if not available, the proposed location of groundwater monitoring wells to collect this data;

f. Wetland delineation confirmation and data sheets and maps for existing surface water areas on the proposed site;

g. A preliminary grading plan;

h. A preliminary wetland planting scheme, including suggested plant species and zonation of each vegetation type proposed;

i. Descriptions of existing soils, including general information on topsoil and subsoil conditions, permeability, and the need for soil amendments;

j. A preliminary design of any water control systems or structures for wetland restoration or establishment;

k. Depiction of any land conversion or other buffer areas associated with the nutrient credit-generating entity;

l. A description of any structures or features necessary for the success of the site; and

m. A preliminary schedule for site construction.

3. An initial stream restoration plan, which shall include the following:

a. The goals and objectives in terms of proposed nutrient reductions and restoration activities;

b. A detailed location map (e.g., a U.S. Geologic Survey topographic quadrangle map), including the latitude and longitude (to the nearest second) and the hydrologic unit code (HUC) at the center of the site;

c. A description of the surrounding land use;

d. The preliminary proposed stream segment restoration locations, including plan view, profile, and cross-section sketches;

e. The existing stream deficiencies that need to be addressed;

f. The proposed restoration measures to be employed, including channel measurements, proposed design flows, types of instream structures, and conceptual planting scheme for streambank plantings;

g. Reference stream data, if available;

h. Depiction of any land conversion or other buffer areas associated with the nutrient credit-generating project; and,

h. A preliminary schedule for site construction.

4. Prior to construction of the restoration site, the following final plans shall be submitted where appropriate to the type of restoration:

a. The final wetland restoration plan, which shall include all of the items listed in subdivision H 2 of this section and the following:

(1) A summary of the type and acreage of existing stream and wetland impacts anticipated during the construction of the restoration site and the proposed compensation for these impacts;

(2) A site access plan;

(3) An erosion and sediment control plan meeting the requirements of 9VAC25-840;

(4) The final construction schedule; and

(5) A monitoring plan as detailed in subdivision H 4 c of this section.

b. A final stream restoration plan, which shall include the items listed in subdivision H 3 of this section of this section and the following:

(1) A summary of the type and acreage or linear feet of impacts to state waters anticipated during the construction of the restoration site and the proposed compensation for these impacts;

(2) [~~Detailed~~ A detailed] plan view, profile, and cross-section sketches with the location of proposed restoration measures;

(3) A site access plan;

(4) An erosion and sediment control plan meeting the requirements of 9VAC25-840;

(5) [~~Final~~ The final] construction schedule; and

(6) A monitoring plan as detailed in subdivision H 4 c of this section.

c. A monitoring plan, which shall include: (i) monitoring goals; (ii) proposed performance standards; (iii) parameters to be monitored; (iv) methods of monitoring; (v) length of monitoring period; (vi) monitoring and reporting schedule; (vii) reporting requirements; and, (viii) projects responsible for monitoring and reporting.

(1) Performance standards for wetland or stream restoration shall include specific, measureable parameters for determination of performance in comparison to as-built conditions. For wetland restoration, performance standards may include applicable parameters to demonstrate characteristics of wetland formation and stability for the type of wetland restored, including hydrology, soils, vegetation, and stability of any water control structures or berms. For stream restoration, performance standards may include applicable parameters to demonstrate characteristics of channel stability, including dimension, pattern, profile, materials, and stability of the channel and any structures.

(2) Monitoring methods and parameters shall be selected based on type of wetland or stream restoration, the implementation plan, and performance standards of the nutrient credit-generating project, and will be outlined in the monitoring plan. For wetland restoration, the monitoring plan shall include the location and number of photo stations, monitoring wells, vegetation sampling points, other monitoring equipment, and reference wetlands, if available. For stream restoration, the plan shall include the location and number of stations utilized for photo-monitoring, cross-sections, profiles, pattern measurements, streambank stability measurements, streambank vegetation surveys, bank pins, scour chains, stream gages, rain gages, other monitoring equipment, and reference streams, if available.

(3) The monitoring and reporting schedule shall include an as-built survey conducted directly following construction and at least six monitoring and reporting events over a 10-year monitoring period following construction. All monitoring activities shall occur during the growing season, with the exception that after year three, physical monitoring of stream condition (cross-section, profiles, pattern) may be conducted outside the growing season. For any year in which planting was conducted, monitoring of woody vegetation shall take place no earlier than October and at least six months following planting. If all performance standards have not been met in the 10th year, then a monitoring report shall be required for each consecutive year until two sequential annual reports indicate that all performance standards have been successfully satisfied. The extent of monitoring may be reduced, upon approval by the department, on a case-by-case basis, in response to exceptional attainment of performance standards. Submittal of a final monitoring report, typically prepared the 10th growing season following construction completion, shall be required as a baseline for long-term management.

5. A long-term management plan, which shall include:

a. Restoration projects shall include minimization of active engineering features (e.g., pumps) that require long-term management and appropriate site selection to ensure that natural hydrology and landscape context will support long-term sustainability;

b. Long-term management and maintenance shall include basic management as necessary to ensure long-term sustainability of the nutrient credit-generating project such as long-term repair or replacement, maintenance of water control or other structures, or easement enforcement;

c. The owner shall designate a responsible long-term steward in the plan. The owner of the nutrient credit-generating project is the default long-term steward and is responsible for implementing the long term management plan and management of the financial assurance. However, the owner may transfer the long-term management responsibilities and management of the long-term financial assurance to a long-term steward or land stewardship project, such as a public agency, nongovernmental organization, or private land manager, upon review and approval by the department.

d. Long-term management needs, annual cost estimates for these needs, and identifying the funding mechanism that will be used to meet these needs shall be included.

I. For nutrient credit-generating ~~entities~~ projects utilizing urban practices, the implementation plan shall also include:

1. A description of the contributing drainage area (CDA) for the proposed nutrient credit-generating ~~entity's~~ project's BMP. This description shall include (i) the acreage and land covers (e.g., impervious, forest or open space, managed turf); (ii) water features including all streams, ponds, lakes, and wetlands; (iii) identification of all impaired waters and approved TMDLs; and (iv) ~~identification/mapping~~ identification or mapping of the soil types within the CDA, by USDA hydrological soil group.

2. A list of all of the current urban nutrient management plans developed by a certified nutrient management planner and being implemented within the CDA.

3. Information on the location and description of existing BMPs within the CDA. For BMPs that constitute the baseline requirements include implementation schedules, lifespan, and maintenance procedures.

4. For development and redevelopment projects, the implementation plan shall include the erosion and sediment control plan and the stormwater management plan developed in accordance 9VAC25-870.

5. For retrofits, the implementation plan shall include relevant credit calculations and documentation as deemed appropriate by the department.

~~I~~J. For other types of activities or projects not presented in subsections C through ~~H~~ I of this section, the implementation plan shall include information as deemed appropriate by the department in order to evaluate the credits for nutrient credit certification.

9VAC25-900-130. Signature requirements.

A. All applications for certification of nutrient credits shall be signed as follows:

1. For a corporation, the application shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy-making or decision-making functions for the corporation or the manager of the nutrient credit-generating ~~entity~~ project provided the manager is authorized to make management decisions that govern the operation of the ~~entity~~ project;

2. For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively; or

3. For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. All reports required by this chapter and other information requested by the department shall be signed by a person described in subsection A of this section or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in subsection A of this section;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the ~~entity~~ project; and

3. The written authorization is submitted to the department.

C. If an authorization under subsection B of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the ~~entity~~ project, a new authorization satisfying the requirements of subsection B of this section shall be submitted to the department prior to or together with any reports or information to be signed by an authorized representative.

D. Any person signing a document under subdivision A or B of this section shall ~~certify that all submittals are true, accurate, and complete to the best of his knowledge and belief.~~ make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Part IV

Compliance and Enforcement

9VAC25-900-140. Inspections and information to be furnished.

A. The owner of the nutrient credit-generating ~~entity~~ project shall allow the director or an authorized representative, including an authorized contractor acting as a representative of the department, upon presentation of credentials, to:

1. Enter the management area including the premises where the nutrient credit-generating ~~entity~~ project is located and where records are kept in accordance with this chapter or the nutrient credit certification. Records to be retained include the approved implementation plan, operations and maintenance plan, and, if required, confirmation of financial assurance documents.

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this chapter, the approved plans listed in subdivision A 1 of this section, or as otherwise required by the nutrient credit certification. The owner will make available any records requested by the department that detail nutrient credit-generating ~~entity~~ project operations, status, records of transactions , or other actions that demonstrate the status of credits and operations of the nutrient credit-generating ~~entity~~ project including records required to be kept under any implementation plan, operations and maintenance plan, or financial assurance documents;

3. Inspect at reasonable times any ~~entities~~ projects, equipment, practices, or operations regulated or required under the provisions of this chapter, the approved plans listed in subdivision A 1 of this section, or as otherwise required by the nutrient credit certification; and

4. Sample or monitor at reasonable times, for the purposes of assuring compliance with the provisions of this chapter, the nutrient credit certification, or as otherwise authorized by state law or regulation.

B. For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing in this section shall make an inspection unreasonable during an emergency when applicable.

C. The owner of the nutrient credit-generating ~~entity~~ project shall furnish to the department, within a reasonable time, any information that the department may request to determine (i) whether cause exists for suspension of nutrient credit exchange, modifying, revoking and recertifying, or terminating nutrient credit certification or (ii) compliance with the provisions of this chapter or the implementation plan, operations and maintenance plan, or financial assurance approved under this chapter. The department may require the owner of the nutrient credit-generating ~~entity~~ project to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the operation of the nutrient credit-generating ~~entity~~ project on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the law. The owner of the nutrient credit-generating ~~entity~~ project shall also furnish to the department, upon request, copies of records required to be kept under the provisions of this chapter or the nutrient credit certification including the approved implementation plan, operations and maintenance plan, or proof of financial assurance records.

9VAC25-900-150. Recordkeeping and reporting.

A. The owner of the nutrient credit-generating ~~entity~~ project shall maintain all records relevant to the management, operations, and maintenance of the nutrient credit-generating ~~entity~~ project, including copies of all reports required by this chapter, the nutrient credit certification or the implementation plan, operations and maintenance plan, or financial assurance approved under this chapter. Records of all data used to complete the application for certification of nutrient credits shall be kept. All records shall be maintained for at least five years following the final exchange of any credits. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the owner of the nutrient credit-generating ~~entity~~ project, or as requested by the board.

B. All applications, reports, or information submitted to the department shall be signed and certified as required by 9VAC25-900-130.

C. Reporting requirements.

1. The owner of the nutrient credit-generating ~~entity~~ project shall give advance notice to the department as soon as possible of any planned physical alterations or additions to the ~~entity~~ project when the alteration or addition could change the amount of nutrient reductions generated.

2. The owner of the nutrient credit-generating ~~entity~~ project shall give advance notice to the department of any planned changes in the ~~entity~~ project that may result in noncompliance with the Act, this chapter, or the nutrient credit certification.

3. Reports of compliance or noncompliance with ~~,~~ or any progress reports on achieving conditions specified in the nutrient credit certification shall be submitted no later than 14 days following each schedule date.

4. Where the owner of the nutrient credit-generating ~~entity~~ project becomes aware that incorrect information has been submitted in an application for nutrient credit certification or in any report to the department, the owner shall promptly submit the corrected information.

5. Each owner shall submit an annual report on the status of the nutrient credit-generating ~~entity~~ project operations including credit-generating practices, confirmation of the continued implementation and maintenance of practices required to establish baseline in accordance with 9VAC25-900-100, statement of financial assurances, and an up-to-date credit ledger detailing credits available for exchange, credits exchanged, and associated purchaser information. This report shall contain recent photographs of any structural BMPs implemented to achieve baseline or for nutrient credit generation ~~and it shall cover the period from July 1 through June 30 of each year~~. The report shall cover the period from July 1 through June 30 of each year and be submitted annually by August 15 unless an alternative reporting period and submittal date are provided for in the nutrient credit certification.

6. In addition to the annual report detailed in subdivision 5 of this subsection, nutrient credit-generating projects utilizing wetland or stream restoration shall conduct post-construction monitoring and submit monitoring reports, according to the monitoring plan approved as part of the implementation plan pursuant to 9VAC25-900-120.

7. Exchange of credits shall be recorded on the registry. The exchange of credits by the owner of the nutrient credit-generating ~~entity~~ project shall be reported to the department within 14 calendar days of the date of the exchange. This report shall include:

a. The identification for the credits exchanged;

b. The name of and contact information for the buyer;

c. The name of the seller;

d. The amount of credits exchanged; and

e. If applicable, the name of the facility and the associated permit number that shall use the purchased credits.

9VAC25-900-160. Enforcement and penalties.

The board may enforce the provisions of this chapter utilizing all applicable procedures under the State Water Control Law.

9VAC25-900-170. Suspension of credit exchange.

A. If the department tentatively decides to suspend the ability of an owner of a nutrient credit-generating ~~entity~~ project to exchange credits, the department shall issue a notice of its tentative decision to the owner. If the department determines that suspension is appropriate, it will also remove the ability for the owner to show credits for exchange on the registry. The ability to exchange credits shall remain suspended until such time as the owner brings the nutrient credit-generating ~~entity~~ project into compliance with this chapter and the nutrient credit certification to the department's satisfaction.

B. The following are causes for the department to suspend the exchange of credits:

1. Noncompliance by the owner of the nutrient credit-generating ~~entity~~ project with any condition of the nutrient credit certification or any plans approved under or required by the nutrient credit certification or this chapter;

2. Failure of the owner of the nutrient credit-generating ~~entity~~ project to disclose fully all relevant material facts or, the misrepresentation of any relevant material facts in applying for certification of nutrient credits or in any other report or document required under the law, this chapter, the nutrient credit certification, or any plans approved or required under the nutrient credit certification;

3. A change in any condition that results in a temporary or permanent elimination of the best management practices approved as part of the nutrient credit certification; or

4. There exists a material change in the basis on which the nutrient credit certification was issued that requires either a temporary or permanent elimination of activities controlled by the nutrient credit certification necessary to protect human health or the environment; however, credit quantities established using the best available scientific and technical information at the time of certification may not be reduced.

9VAC25-900-180. Nutrient credit certification transfer, modification, revocation and ~~recertification~~ reissuance, or termination.

A. Nutrient credit certifications may be modified, revoked and reissued, or terminated either at the request of the party holding the certification or upon the department's initiative for cause. The filing of a request by the holder of the nutrient credit certification for a modification, revocation and reissuance, or termination of a certification, or a notification of planned changes or anticipated noncompliance with regulatory requirements does not stay any condition of a nutrient credit certification.

B. If the department decides that a request for modification, revocation and reissuance, or termination is not justified, it shall send the requester a brief response giving a reason for the decision.

C. If the department tentatively decides to modify or revoke and reissue a nutrient credit certification, it may request the submission of a new application.

D. If the department tentatively decides to terminate a nutrient credit certification and the owner of the nutrient credit-generating ~~entity~~ project objects, the department shall issue a notice of intent to terminate and shall contemporaneously notify any known buyers of the ~~entity's~~ project's nutrient credits of its intent to terminate.

E. A certification of nutrient credits may be modified, revoked and reissued, or terminated for cause.

1. Causes for modification. The following are causes for modification, revocation, and reissuance of a certification of nutrient credits:

a. There are material and substantial alterations or additions to the nutrient credit-generating ~~entity~~ project that occurred after certification of nutrient credits and that justify the application of conditions that are different or absent in the existing nutrient credit certification.

b. The department has received new technical information that would have justified the application of different conditions at the time of issuance; however, credit quantities established using the best available scientific and technical information at the time of certification may not be reduced.

c. The department determines good cause exists for modification of milestones within the nutrient credit certification.

d. To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining nutrient credit certification conditions.

e. The department has received notification of a proposed transfer of ownership of the nutrient credit-generating ~~entity~~ project.

2. Causes for termination. The following are causes for terminating a nutrient credit certification during its term or for denying an application for certification of nutrient credits after notice and opportunity for ~~a hearing~~ an informal fact finding proceeding in accordance with § 2.2-4019 of the Administrative Process Act:

a. The owner of the nutrient credit-generating ~~entity~~ project has violated any regulation or order of the board or department, any provision of the law, or any order of a court, where such violation results in a release of harmful substances into the environment or poses a substantial threat of release of harmful substances into the environment or presents a hazard to human health or the violation is representative of a pattern of serious or repeated violations that, in the opinion of the department, demonstrates the owner's disregard for or inability to comply with applicable laws, regulations, or requirements;

b. Noncompliance by the owner of the nutrient credit-generating ~~entity~~ project with any condition of the nutrient credit certification or any plans approved under or required by the nutrient credit certification or this chapter;

c. Failure of the owner of the nutrient credit-generating ~~entity~~ project to disclose fully all relevant material facts or the misrepresentation of any relevant material facts in applying for a certification of nutrient credits or in any other report or document required under the law, this chapter, the nutrient credit certification, or any plans approved or required under the nutrient credit certification;

d. A determination that the credit-generating activity endangers human health or the environment and can only be regulated to acceptable levels by modification or termination of the nutrient credit certification;

e. A change in any condition that results in a permanent elimination of any of the best management practices approved as part of the nutrient credit certification; or

f. There exists a material change in the basis on which the nutrient credit certification was issued that requires either a temporary or a permanent elimination of activities controlled by the nutrient credit certification necessary to protect human health or the environment; however, credit quantities established using the best available scientific and technical information at the time of certification may not be reduced.

g. Failure of the owner of the nutrient credit-generating ~~entity~~ project to operate and maintain the required baseline practices throughout the management area.

F. Except as provided in subsection G of this section, a nutrient credit certification may be transferred to a new owner or operator only if the certification has been modified or revoked and reissued to identify the new owner or operator and incorporate such other requirements as may be necessary under the Act and this chapter.

G. As an alternative to transfers under subsection F of this section, any certification of nutrient credits may be automatically transferred if:

1. The current holder of the certification of nutrient credits notifies the department at least 30 days in advance of the proposed transfer date in subdivision 2 of this subsection;

2. The notice includes a written agreement between the existing and new owners containing a specific date for transfer of responsibility, coverage, and liability for the nutrient credit-generating ~~entity~~ project between them; and

3. If the department does not notify the existing holder of the certification of nutrient credits and the proposed holder of its intent to modify or revoke and reissue the nutrient credit certification within the 30 days of receipt of the holder's notification of transfer, the transfer is effective on the date specified in the agreement mentioned in subdivision 2 of this subsection.

~~H. The department shall follow the applicable procedures in this chapter when terminating any nutrient credit certification, except when the baseline or nutrient reduction practices used at a nutrient credit-generating entity are permanently terminated or eliminated the department may then terminate the nutrient credit certification by notice to the owner of the nutrient credit-generating entity. Termination by notice shall be effective 30 days after notice is sent, unless the owner objects within that time. If the owner objects during that period, the department shall follow the applicable procedures for termination under this section.~~

Part V
Fees

9VAC25-900-190. Purpose and applicability of fees.

A. The purpose of this part is to establish a schedule of fees collected by the department in the support of its programs under this chapter and as permitted under the Act.

B. This part applies to all persons who submit an application for a certification of nutrient credits in accordance with 9VAC25-900-80. The fees shall be assessed in accordance with this part.

9VAC25-900-200. Determination of application fee amount.

A. Each nutrient credit-generating ~~entity~~ project application and each nutrient credit-generating ~~entity~~ project modification application is a separate action and shall be assessed a separate fee. The amount of such fees is determined on the basis of this section.

B. Perpetual nutrient credit certifications.

1. An applicant for certification of perpetual nutrient credits is assessed a base fee as shown in Table 1 of 9VAC25-900-220 A.

2. An applicant is assessed a supplementary fee based on the number of potential nutrient credits of phosphorus generated in addition to the base fee specified in subdivision 1 of this subsection. The supplementary fees are shown in Table 1 of 9VAC25-900-220 A.

3. Modifications of approved perpetual nutrient credit certifications will be assessed the base fee only unless the modifications generate additional perpetual credits then a supplementary fee based on the number of additional potential nutrient credits of phosphorus will be assessed in addition to the base fee as specified in subdivision 2 of this subsection.

4. The total fee (base fee plus supplementary fee) shall not exceed $10,000. If the calculated fee is greater than $10,000 then the applicant shall only pay $10,000.

C. Term nutrient credit certifications.

1. An applicant for certification of term nutrient credits is assessed a base fee plus a supplementary fee based on the number of potential term credits and the requested term of those credits as shown in Table 2 of 9VAC25-900-220 A.

2. A modification of an approved term nutrient credit certification is assessed a base fee plus a supplementary fee based on the number of term credits and the requested term of those credits as shown in Table 2 of 9VAC25-900-220 A.

3. A renewal will be assessed a base fee plus a supplementary fee based on the number of renewing term credits as shown in Table 3 of 9VAC25-900-220 A if there are (i) no changes to the site or practices that were submitted with the previously approved nutrient credit certification application; (ii) the renewal application submitted ~~is an exact duplicate of the application for~~ does not contain any new practices and is substantial the same as the previously approved nutrient credit certification; and (iii) the application is submitted at least 60 days prior to the end date of the term credits for which renewal is sought. If the renewal application includes changes to the site, changes to practices, or new practices or is submitted less than 60 days prior to the end date of the term credits, the application shall be deemed a new application and shall be assessed a fee as provided in subdivision 1 of this subsection.

4. The total fee (base fee plus supplementary fee) shall not exceed $10,000. If the calculated fee is greater than $10,000 then the applicant shall only pay $10,000.

9VAC25-900-210. Payment of application fees.

A. Due date. All application fees are due on the day of application and must accompany the application.

B. Method of payment. Fees shall be paid by check, draft, or postal money order made payable to "Treasurer of Virginia" and shall be sent to the Department of Environmental Quality, Receipts Control, P.O. Box 1104, Richmond, VA 23218. When the department is able to accept electronic payments, payments may be submitted electronically.

C. Incomplete payments. All incomplete payments will be deemed nonpayments.

D. Late payment. Pursuant to 9VAC25-900-80, no applications will be deemed to be complete until the department receives ~~proper payment~~ the fee paid in full.

9VAC25-900-220. Application fee schedule.

A. Fees.

Table 1. Perpetual Nutrient Credits Certification Application Fees

Base Fee	$3,000
Supplementary Fees – Total Number of Perpetual Phosphorus Credits (X)	

X ≤ 30	$1,000
30 < X ≤ 60	$3,000
60 < X ≤ 90	$5,000
X > 90	$7,000

Table 2. Term Nutrient Credits Certification Application Fees

Base Fee	$3,000
Supplementary Fees	$/(Credit*Term Years)
1st 100 term nutrient credits (1 to 100)	$4.00
2nd 100 term nutrient credits (101 to 200)	$3.00
3rd 100 term nutrient credits (201 to 300)	$2.00
4th 100 term nutrient credits (> 300)	$1.00

Table 3. Renewal Term Nutrient Credits Certification Application Fees

Base Fee	$1,000
Supplementary Fees	$/(Credit*Term Years)
1st 100 term nutrient credits (1 to 100)	$4.00
2nd 100 term nutrient credits (101 to 200)	$3.00
3rd 100 term nutrient credits (201 to 300)	$2.00
4th 100 term nutrient credits (> 300)	$1.00

B. Illustrative examples.

1. Example 1. The applicant is submitting an application for nutrient credit certification of a nutrient credit-generating ~~entity~~ project that will generate perpetual credits. The number of potential perpetual credits calculated is 150. The required fee is calculated as follows:

Base fee	$3,000
Supplementary fee for 150 perpetual P credits	+$7,000
Total fee	=$10,000

2. Example 2. The applicant is submitting an application for nutrient credit certification of a nutrient credit-generating ~~entity~~ project that generated credits with a five-year term. The number of potential nutrient credits calculated is 275. The required fee is calculated as follows:

Base fee	$3,000
Supplementary fee for 1 to 100 credits	+(100*5*$4)=$2,000
Supplementary fee for 101 to 200 credits	+(100*5*$3)=$1,500
Supplementary fee for 201 to 275 credits	+ (75*5*$2)= $750
Total fee	= $7,250

3. Example 3. The applicant is submitting a renewal application for annual credits generated at a nutrient credit-generating ~~entity~~ project for a five-year term. The number of annual credits being renewed for another term is 165. The required fee is calculated as follows:

Base fee	$1,000
Supplementary fee for 1 to 100 credits	+(100*5*$4)=$2,000
Supplementary fee for 101 to 200 credits	+(65*5*$3)=$975
Total fee	= $3,975

4. Example 4. The applicant is submitting an application for nutrient credit certification of a nutrient credit-generating project that generates credits with a five-year term. The number of potential nutrient credits calculated is 1000. The required fee is calculated as follows:

Base fee	$3,000
Supplementary fee for 1 to 100 credits	+(100*5*$4)=$2,000
Supplementary fee for 101 to 200 credits	+(100*5*$3)=$1,500
Supplementary fee for 201 to 300 credits	+(100*5*$2)=$1,000
Supplementary fee for 301 to 1000 credits	+(700*5*$1)=$3,500
Total	= $11,000
Total fee	= $10,000 (fee cannot exceed $10,000)

Part VI

Financial Assurance

9VAC25-900-230. Financial assurance applicability.

A. An owner of a nutrient credit-generating ~~entity~~ project that utilizes structural BMPs for the generation of perpetual credits shall submit and maintain financial assurance in accordance with this part. The financial assurance mechanism shall be submitted to and approved by the department prior to the release of credits.

B. An owner of a nutrient credit-generating ~~entity~~ project that utilizes structural BMPs for the generation of term credits with terms that exceed one year shall submit and maintain financial assurance in accordance with this part. ~~The~~ However, an owner of a nutrient credit-generating project that utilizes structural BMPs for the generation of term credits with terms that exceed one year shall not be required to submit and maintain financial assurance in accordance with this part, provided that the department annually approves the generation of the term nutrient credits prior to release of the credits. In accordance with 9VAC25-900-90 B, the financial assurance mechanism shall be submitted to and approved by the department prior to the release of credits. For the purposes of this part, term credit shall refer to credit with a term greater than one year but not perpetual.

C. An owner of a nutrient credit-generating ~~entity that utilizes structural BMPs for the generation of credits with a term of one year shall not be required to provide financial assurance. D.~~ project using proposed new wetland or stream restoration practices not subject to 33 CFR 332.8 and § 62.1-44.15:23 of the Code of Virginia for the generation of perpetual credits shall be required to submit and maintain financial assurance in accordance with this chapter. In accordance with 9VAC25-900-90 B, the financial assurance mechanism shall be submitted to and approved by the department prior to the release of credits. The following financial assurances shall be provided for these new wetland or stream restoration projects:

1. A monitoring plan financial assurance mechanism shall be established to ensure implementation of the monitoring plan pursuant to 9VAC25-900-120 for any nutrient credits generated from wetland or stream restoration. When the owner conducts the required monitoring and submits a complete monitoring report as specified in the monitoring plan and report requirements, then the owner may request a reduction of the required financial assurance amount equivalent to the cost of one year of monitoring, subject to department approval. If any funds remain in the financial assurance mechanism after the monitoring period, the mechanism shall be maintained until the final monitoring report is submitted and approved, at which point the mechanism shall be released by the department; and

2. A long-term management fund financial assurance mechanism shall be established in support of required long-term management plan tasks pursuant to 9VAC25-900-120 for any nutrient credits generated from wetland or stream restoration. Long-term management funds shall be placed in a separate interest bearing trust account in an appropriate financial institution and may be funded from a sufficient percentage of all credit sale proceeds, a single lump sum payment, or an approved schedule of payments, subject to department approval. No long-term management funds shall be used to finance any expense or activity other than those specified in the long-term management plan unless approved by the department. Responsibility for and access to the long-term management fund is given to the owner or long-term steward and may be transferred to any new long-term steward that is designated by the owner and approved by the department.

~~E.~~ D. When the nutrient credits are generated or used by a locality, authority, utility, sanitation district, or owner operating an MS4 or a point source permitted under 9VAC25-870, the ~~existing~~ existence of tax or rate authority may be used ~~to provide evidence~~ by such entity at its option in satisfaction of the financial assurance required pursuant to this part. ~~The locality, authority, utility, sanitation district, or owner shall certify as a condition of their application that such tax or rate authority will be used to ensure an adequate supply of credits to meet the entity's obligation, whether by continued operation and maintenance of the structural BMPs at the nutrient credit-generating entity or by other means.~~

9VAC25-900-240. Suspension of nutrient credit exchange.

Failure to provide or maintain adequate evidence of financial assurance in accordance with this part shall be cause for the department to suspend the exchange of credits in accordance with 9VAC25-900-170 or terminate the nutrient credit certification in accordance with 9VAC25-900-180.

9VAC25-900-250. Cost estimates for perpetual and term credit nutrient credit-generating ~~entities~~ projects.

A. The owner of a nutrient credit-generating ~~entity~~ project shall prepare for approval by the department a detailed written cost estimate providing the cost of ~~either~~ repairing or restoring, as appropriate, and operating and maintaining any structural BMPs ~~generating perpetual nutrient credits or term nutrient credits with a term of greater than one year~~ required to submit and maintain financial assurance pursuant to 9VAC25-900-230. This written cost estimate shall be submitted as part of the application in accordance with 9VAC25-900-80 and shall include:

1. For structural BMPs generating perpetual nutrient credits, the cost estimate shall equal the ~~estimated~~ full cost for ~~either~~ repairing or restoring, as appropriate, the structural BMPs plus the cost for ~~five~~ fifty years of operation and maintenance of the structural BMPs in accordance with the implementation plan.

2. For structural BMPs generating term nutrient credits, the cost estimate shall equal the full cost for ~~either~~ repairing or restoring, as appropriate, the structural BMPs plus the cost for the operation and maintenance of the structural BMPs in accordance with the implementation plan for the term of the credits or for five years, whichever is less.

3. The cost estimate shall be based on and include the costs of hiring a third party to either repair or restore and operate and maintain the structural BMPs generating nutrient credits. The third party may not be either a parent corporation or subsidiary of the owner.

B. The owner of the nutrient credit-generating project utilizing proposed new wetland or stream restoration practices not subject to 33 CFR 332.8 and § 62.1-44.15:23 of the Code of Virginia will develop a separate written cost estimate for each of the applicable financial assurance requirements provided in 9VAC25-900-230 D. All cost estimates shall be submitted as part of the application in accordance with 9VAC25-900-80.

1. Monitoring plan financial assurance cost estimates shall be sufficient to hire another qualified entity to monitor and report on performance standards for the nutrient credit-generating project in the event of noncompliance with this chapter.

2. Long-term management fund financial assurance cost estimates shall be based on the size and complexity of the implementation plan, long-term management plan tasks, and any other factors that the department deems appropriate and will state the total dollar amount required to fund this financial assurance.

C. For a nutrient credit-generating ~~entity~~ project generating perpetual credit ~~from structural BMPs~~, the cost estimate shall be ~~reviewed~~ updated by the owner and submitted to the department for its review for sufficiency ~~by the department~~ at least once every five years.

9VAC25-900-260. Financial assurance requirements for term credits.

A. For a nutrient credit-generating ~~entity~~ project generating term credits ~~with a term of greater than one year~~ and required to submit and maintain financial assurance pursuant to 9VAC25-900-230, the owner shall demonstrate financial assurance using any one or a combination of the mechanisms specified in 9VAC25-900-290 through 9VAC25-900-330.

B. The financial assurance mechanism ~~or mechanisms~~ shall provide funding for the full amount of the cost estimate at all times.

C. The financial assurance mechanism ~~or mechanisms~~ used to provide evidence of the financial assurance shall ensure that the funds necessary will be available whenever they are needed.

D. The owner shall provide continuous financial assurance coverage for the term credit nutrient credit-generating ~~entity~~ project in accordance with this part until released by the department.

E. After submittal of a complete financial assurance mechanism, the department shall notify the owner of the tentative decision to approve or reject the financial assurance mechanism.

F. A financial assurance mechanism must be in a form that ensures that the department will receive proper notification in advance of any termination or revocation. The owner may, at their discretion and with prior approval of the department, replace the financial assurance or financial institution that issued the financial assurance. The owner shall provide the department with prior notice of its desire to replace the issuing institution and a draft of the new mechanism for review. The provisions of the new mechanism shall conform to the provisions of the former mechanism and this part.

9VAC25-900-270. Financial assurance requirements for perpetual credits.

A. Subject to the requirements and limitations outlined in this section, the owner shall demonstrate financial assurance for the ~~perpetual credit~~ nutrient credit-generating ~~entity~~ project generating perpetual nutrient credits using any one or combination of the mechanisms specified in 9VAC25-900-290 through 9VAC25-900-330. However, for restoration projects, the owner may only use a trust fund as provided in 9VAC25-900-290 to demonstrate financial assurance for the long-term management fund as described in 9VAC25-900-230 C 2.

B. The financial assurance mechanism ~~or mechanisms~~ used shall provide funding for the full amount of the cost estimate or of the sum of all cost estimates at all times.

C. The owner may only establish or continue to use insurance, as outlined in 9VAC25-900-330, to demonstrate financial assurance for that portion of the total cost estimate that does not include credits that have been exchanged. On an annual basis, the owner shall either establish or increase the noninsurance mechanism ~~or mechanisms~~ outlined in 9VAC25-900-290 through 9VAC25-900-320 in an amount to be determined in accordance with the following formula ~~below~~:

CE/TCIAS * CEDAAP

where:

CE = Cost Estimate

TCIAS = Total Number of Credits Initially Available for Exchange

CEDAAP = Number of Credits Exchanged During the Applicable Annual Period

D. The owner shall establish or increase the mechanism ~~or mechanisms~~ as required by subsection C of this section no later than 30 days after the current anniversary date of the nutrient credit certification. The applicable annual period for credits exchanged is the one culminating on the anniversary date of the nutrient credit certification.

E. The financial assurance mechanisms used to provide evidence of the financial assurance shall ensure that the funds necessary will be available whenever they are needed.

F. After submittal of a complete financial assurance mechanism, the department shall notify the owner of the tentative decision to approve or reject the financial assurance mechanism.

G. A financial assurance mechanism must be in a form that ensures that the department will receive proper notification in advance of any termination or revocation. The owner may, at its discretion and with prior approval of the department, replace the financial assurance or financial institution that issued the financial assurance. The owner shall provide the department with prior notice of its desire to replace the issuing institution and a draft of the new mechanism for review. The provisions of the new mechanism shall conform to the provisions of the former mechanism and this part.

9VAC25-900-280. Allowable financial mechanisms.

A. Subject to the limitations and requirements outlined in 9VAC25-900-260 and 9VAC25-900-270, an owner of nutrient credit-generating ~~entity~~ project using structural BMPs to generate term or perpetual nutrient credits [and required to submit financial assurance pursuant to 9VAC25-900-230 may use any one or combination of mechanisms listed in 9VAC25-900-290 through 9VAC25-900-330 to meet the financial assurance requirements of this ~~part~~ chapter.

B. Subject to the limitation and requirements outlined in 9VAC25-900-270, an owner of a nutrient credit-generating project utilizing wetland or stream restoration practices to generate perpetual credits and required to submit financial assurance pursuant to 9VAC25-900-230, may use any one or combination of mechanisms listed in 9VAC25-900-290 through 9VAC25-900-330 to meet the financial assurance requirements for the monitoring plan; however, only a trust fund may be used to meet the financial assurance requirements for the long-term management fund.

9VAC25-900-290. Trust.

A. An owner may satisfy the requirements of this part by establishing a trust fund that conforms to the requirements of this section and by submitting an originally signed triplicate of the trust agreement to the director. The owner shall also place a copy of the trust agreement into the nutrient credit-generating ~~entity's~~ project's operating record. The trustee for the trust fund shall be a bank or financial institution that has the authority to act as a trustee and whose trust operations are regulated and examined by a state or federal agency.

B. Payments into the trust fund shall be made by the owner whenever necessary under the requirements of 9VAC25-900-260 or 9VAC25-900-270.

C. During any annual period when a payment into the fund is necessary under the applicable requirements outlined in 9VAC25-900-260 and 9VAC25-900-270, the owner must submit the following information to the director no later than the anniversary date of the initial approval by the department of the release of credits for exchange:

1. The calculation for determining the appropriate payment amount into the trust; and

2. A statement from the trustee indicating the amount of the currently required deposit into the trust fund and the subsequent balance of the fund.

D. The owner shall compare the cost estimate with the trustee's most recent annual valuation of the trust fund:

1. Annually, at least 60 days prior to the anniversary date of the initial approval by the department of the release of credits for exchange. If the value of the fund is less than the amount of the cost estimate, the owner shall, by the anniversary date of the initial approval by the department of the release of credits for exchange, deposit a sufficient amount into the fund so that its value after payment at least equals the amount of the cost estimate, or obtain other financial assurance as specified in this part to cover the difference. If the value of the trust fund is greater than the total amount of the cost estimate, the owner may submit a written request to the director for release of the amount that is in excess of the cost estimate; and

2. Whenever the cost estimate changes. If the value of the fund is less than the amount of the new cost estimate, the owner shall, within 60 days of the change in the cost estimate, deposit a sufficient amount into the fund so that its value after payment at least equals the amount of the new estimate, or obtain other financial assurance as specified in this part to cover the difference. If the value of the trust fund is greater than the total amount of the cost estimate, the owner may submit a written request to the director for release of the amount that is in excess of the cost estimate.

E. The department shall withdraw funds from the trust when the owner has failed to monitor, operate and maintain, perform long-term maintenance for, or repair or replace, as applicable, the practices utilized by the nutrient credit-generating project in accordance with this chapter and the nutrient credit certification. The department shall use the funds to pay for the performance of monitoring, operation, and maintenance, or the performance of long-term maintenance, or repair and replacement, as applicable, of the practices utilized by the nutrient credit-generating project.

F. Subject to the limitations and requirements outlined in 9VAC25-900-260 and 9VAC25-900-270, if the owner substitutes other financial assurance as specified in this part for all or part of the trust fund, the owner may submit a written request to the director for release of the amount in excess of the current cost estimate covered by the trust fund.

~~F.~~ G. Within 60 days after receiving a request from the owner for release of funds as described in subsections ~~E~~ F and ~~G~~ H of this section, the director shall instruct the trustee to release to the owner such funds as the director deems appropriate, if any, in writing.

~~G.~~ H. The director shall agree to terminate the trust when:

1. The owner substitutes alternate financial assurance as specified in this part; or

2. The director notifies the owner that the owner is no longer required by this part to maintain financial assurance for the ~~operation and maintenance or replacement of the~~ nutrient credit-generating ~~entity's structural BMPs~~ project.

~~H.~~ I. The trust agreement shall be worded as described in 9VAC25-900-350, except that instructions in parentheses are to be replaced with the appropriate information and the ~~parantheses~~ parentheses deleted, and the trust agreement shall be accompanied by a formal certification of acknowledgment and Schedules A and B.

9VAC25-900-300. Surety bond.

A. An owner may satisfy the requirements of this part by obtaining a surety bond that conforms to the requirements of this section and by submitting an originally signed duplicate of the bond to the department. The surety company issuing the bond shall be licensed to operate as a surety in the Commonwealth of Virginia and be among those listed as acceptable sureties on federal bonds in the latest Circular 570 of the U.S. Department of the Treasury.

B. Under the terms of the bond, the surety shall become liable on the bond obligation when the owner fails to perform as guaranteed by the bond.

C. The bond shall guarantee that the owner or any other authorized person ~~will~~ shall perform all or any of the following activities for which the bond is used to satisfy the requirements of this part:

1. Operate and maintain, monitor, repair, or replace any ~~structural BMPs~~ practices for achieving nutrient reductions at the nutrient credit-generating ~~entity~~ project in question and in accordance with the nutrient credit certification; or,

2. Operate and maintain, monitor, repair, or replace any ~~structural BMPs~~ practices following an order to do so that has been issued by the department or by a court.

D. The owner shall compare the cost estimate with the penal sum of the bond:

1. Annually, at least 60 days prior to the anniversary date of the initial approval by the department of the release of credits for exchange. If the penal sum of the bond is less than the amount of the cost estimate, the owner shall, by the anniversary date of the initial approval by the department of the release of credits for exchange, increase the penal sum of the bond so that its value at least equals the amount of the cost estimate, or obtain other financial assurance as specified in this part to cover the difference. If the penal sum of the bond is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to reduce the penal sum of the bond to the amount of the cost estimate; and

2. Whenever the cost estimate changes. If the penal sum of the bond is less than the amount of the new cost estimate, the owner shall, within 60 days of the change in the cost estimate, increase the penal sum of the bond so that its value at least equals the amount of the new estimate, or obtain other financial assurance as specified in this part to cover the difference. If the penal sum of the bond is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to reduce the penal sum of the bond to the amount of the cost estimate.

E. The surety bond shall guarantee that the owner shall provide alternate evidence of financial assurance as specified in this part within 60 days after receipt by the department of a notice of cancellation of the bond from the surety.

F. The bond shall remain in force for its term unless the surety sends written notice of cancellation by certified mail to the owner and to the department. Cancellation cannot occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by the department as shown on the signed return receipt. The surety shall provide written notification to the department by certified mail no less than 120 days prior to the expiration date of the bond that the bond will expire and the date the bond will expire.

G. The department shall cash the surety bond ~~if it~~:

1. When it is not replaced 60 days prior to expiration with alternate evidence of financial assurance acceptable to the department; or ~~if~~

2. If the owner ~~fails to fulfill the conditions of the bond.~~ has failed to monitor, operate and maintain, or repair or replace, as applicable, the practices utilized by the nutrient credit-generating project in accordance with this chapter and the nutrient credit certification. The department shall use the funds from the surety bond to pay for the performance of monitoring, operation, and maintenance or repair and replacement, as applicable, of the practices utilized by the nutrient credit-generating project.

H. The department shall return the original surety bond to the surety for termination when:

1. The owner substitutes acceptable alternate evidence of financial assurance; or

2. The ~~department~~ director notifies the owner that the owner is no longer required by this part to maintain evidence of financial assurance for ~~operation and maintenance or replacement of the~~ nutrient credit-generating ~~entity's structural BMPs~~ project.

I. The surety bond shall be worded as described in 9VAC25-900-350, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted.

9VAC25-900-310. Letter of credit.

A. An owner may satisfy the requirements of this part by obtaining an irrevocable standby letter of credit that conforms to the requirements of this section and by submitting an originally signed duplicate of the letter of credit to the department. The issuing institution shall be an entity that has the authority to issue letters of credit in the Commonwealth of Virginia and whose letter-of-credit operations are regulated and examined by a federal agency or the Virginia State Corporation Commission.

B. The letter of credit shall be irrevocable and issued for a period of at least one year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least one year. If the issuing institution decides not to extend the letter of credit beyond the current expiration date, it shall, at least 120 days before the expiration date, notify both the owner and the department by certified mail of that decision. The 120-day period will begin on the date of receipt of letter of credit's notice of cancellation by the department as shown on the signed return receipt. If the letter of credit is canceled by the issuing institution, the owner shall obtain alternate evidence of financial assurance to be in effect prior to the expiration date of the letter of credit.

C. The owner shall compare the cost estimate with the face amount of the letter of credit:

1. Annually, at least 60 days prior to the anniversary date of the initial approval by the department of the release of credits for exchange. If the face amount of the letter of credit is less than the amount of the cost estimate, the owner shall, by the anniversary date of the initial approval by the department of the release of credits for exchange, increase the face amount of the letter of credit so that its value at least equals the amount of the cost estimate, or obtain other financial assurance as specified in this part to cover the difference. If the face amount of the letter of credit is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to reduce the face amount of the letter of credit to the amount of the cost estimate; and

2. Whenever the cost estimate changes. If the face amount of the letter of credit is less than the amount of the new cost estimate, the owner shall, within 60 days of the change in the cost estimate, increase the face amount of the letter of credit so that its value at least equals the amount of the new estimate or obtain other financial assurance as specified in this part to cover the difference. If the face amount of the letter of credit is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to reduce the face amount of the letter of credit to the amount of the cost estimate.

D. The issuing institution may cancel the letter of credit only if alternate evidence of financial assurance acceptable to the department is substituted as specified in this part or if the owner is released by the department from the requirements of financial assurance.

E. The department shall cash the letter of credit when:

1. The issuing institution has provided proper notification, as outlined in subsection B of this section, of its intent not to renew the letter of credit, and the owner has not, within 30 days prior to expiration, replaced the letter of credit with alternate evidence of financial assurance acceptable to the department; or

2. The owner has failed to monitor, operate, and maintain or repair or replace, as applicable, the practices utilized by the nutrient credit-generating ~~entity's structural BMPs~~ project in accordance with this chapter and the nutrient credit certification. The department shall use the funds from the letter of credit to pay for the performance of monitoring, operation, and maintenance or repair and replacement, as applicable, of the practices utilized by the nutrient credit-generating project.

F. The department shall return the original letter of credit to the issuing institution for termination when:

1. The owner substitutes acceptable alternate evidence of financial assurance; or

2. The department notifies the owner that the owner is no longer required by this part to maintain evidence of financial assurance for ~~the structural BMPs at his~~ the nutrient credit-generating ~~entity~~ project.

G. The letter of credit shall be worded as described in 9VAC25-900-350, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted.

9VAC25-900-320. Certificate of deposit.

A. An owner may satisfy the requirements of this chapter, wholly or in part, by obtaining a certificate of deposit and assigning all rights, title, and interest in the certificate of deposit to the department, conditioned so that the owner shall ~~operate and maintain or replace the structural BMPs at~~ perform the applicable monitoring, operation, and maintenance or repair or replacement for the practices utilized by the nutrient credit-generating ~~entity~~ project. The issuing institution shall be an entity that has the authority to issue certificates of deposit in the Commonwealth of Virginia and whose operations are regulated and examined by a federal agency or the Virginia State Corporation Commission. The owner must submit the originally signed assignment and the originally signed certificate of deposit, if applicable, to the department.

B. ~~The amount of the certificate of deposit shall be at least equal to the approved cost estimate.~~ The owner shall ~~maintain the certificate of deposit and assignment until such time as the owner is released by the department from financial assurance.~~ compare the cost estimate with the amount of the certificate of deposit:

1. Annually, at least 60 days prior to the anniversary date of the initial approval by the department of the release of credits for exchange. If the amount of the certificate of deposit is less than the amount of the cost estimate, the owner shall, by the anniversary date of the initial approval by the department of the release of credits for exchange, increase the amount of the certificate of deposit so that its value at least equals the amount of the cost estimate, or obtain other financial assurance as specified in this part to cover the difference. If the amount of the certificate of deposit is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to withdraw funds from the certificate of deposit to the amount of the cost estimate; and

2. Whenever the cost estimate changes. If the amount of the certificate of deposit is less than the amount of the new cost estimate, the owner shall, within 60 days of the change in the cost estimate, increase the amount of certificate of deposit so that its value at least equals the amount of the new estimate or obtain other financial assurance as specified in this part to cover the difference. If the amount of the certificate of deposit is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to withdraw funds from the certificate of deposit to the amount of the cost estimate.

C. The owner shall be entitled to demand, receive, and recover the interest and income from the certificate of deposit as it becomes due and payable as long as the market value of the certificate of deposit used continues to at least equal the amount of the current approved cost estimate.

D. The department shall cash the certificate of deposit if the owner has failed to monitor, operate, and maintain or repair or replace ~~his~~ , as applicable, the practices utilized by the nutrient credit-generating ~~entity's structural BMPs~~ project in accordance with this chapter and the nutrient credit certification. The department shall use the funds from the certificate of deposit to pay for the performance of monitoring, operation, and maintenance or repair and replacement, as applicable, of the practices utilized by the nutrient credit-generating project.

E. ~~Whenever the approved cost estimate increases to an amount greater than the amount of the certificate of deposit, the owner shall, within 60 days of the increase, cause the amount of the certificate of deposit to be increased to an amount at least equal to the new estimate or obtain another certificate of deposit to cover the increase. F.~~ The department shall return the original assignment and certificate of deposit, if applicable, to the issuing institution for termination when:

1. The owner substitutes acceptable alternate evidence of financial assurance as specified in this part; or

2. The department notifies the owner that the owner is no longer required by this part to maintain evidence of financial assurance ~~for the structural BMPs~~.

~~G.~~ F. The assignment shall be worded as described in 9VAC25-900-350, except that instructions in parentheses shall be replaced with the relevant information and the parentheses deleted.

9VAC25-900-330. Insurance.

A. An owner may demonstrate financial assurance for ~~replacement~~ applicable costs ~~and~~ for monitoring, repair, or replacement or operation and maintenance by obtaining insurance that conforms to the requirements of this section. The insurance shall be effective before the credits are released by the department for exchange. The insurer must be licensed pursuant to Chapter 10 (§ 38.2-1000 et seq.) of Title 38.2 of the Code of Virginia. The owner shall provide the department with ~~an original~~ a signed copy of the insurance policy. The department shall be listed as an additional insured on the policy, but the department shall not be obligated for payment of the premium in any manner.

B. The insurance policy shall guarantee that funds will be available to fund ~~the replacement of the structural BMPs and reasonable and necessary costs for the operation and maintenance of the structural BMPs~~ (i) for projects using wetland or stream restoration, the cost for fulfilling the requirements of the monitoring plan or (ii) for projects using structural BMPs, the reasonable and necessary cost of repair, replacement, or operation and maintenance or any combination of these activities.

C. The owner shall compare the cost estimate with the liability limit of the insurance policy:

1. Annually, at least 60 days prior to the anniversary date of the initial approval by the department of the release of credits for exchange. If the liability limit of the insurance policy is less than the amount of the cost estimate, the owner shall, by the anniversary date of the initial approval by the department of the release of credits for exchange, increase the liability limit of the insurance policy so that it at least equals the amount of the cost estimate, or obtain other financial assurance as specified in this part to cover the difference. If the liability limit of the insurance policy is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to lower the liability limit of the insurance policy to the amount of the cost estimate; and

2. Whenever the cost estimate changes. If the liability limit of the insurance policy is less than the amount of the new cost estimate, the owner shall, within 60 days of the change in the cost estimate, increase the liability limit of the insurance policy so that it at least equals the amount of the new estimate or obtain other financial assurance as specified in this part to cover the difference. If the liability limit of the insurance policy is greater than the total amount of the cost estimate, the owner may submit a written request to the director for permission to lower the liability limit of the insurance policy to the amount of the cost estimate.

~~C.~~ D. The insurance policy shall be issued and maintained for ~~a face amount~~ an overall liability limit at least equal to the current cost estimate for applicable ~~costs for replacement and operation and maintenance.~~ activities covered under the policy (i.e., monitoring, repair, and replacement or operation and maintenance). The term ~~face amount~~ "overall liability limit" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the ~~face amount~~ overall liability limit although the insurer's future liability will be lowered by the amount of the payments.

~~D.~~ E. The insurance policy shall provide that the insurer shall pay, as applicable, for the monitoring, repair, or replacement ~~and~~ or operation and maintenance of the ~~structural BMPs~~ nutrient credit-generating project's practices. Justification and documentation of the expenditures must be submitted to and approved by the director. Requests for payment will be granted by the insurer only if the remaining value of the policy is sufficient to cover the remaining costs of monitoring, repair, or replacement ~~and~~ or operation and maintenance of the ~~structural BMP~~ nutrient credit-generating project's practices, or if the director approves the payment. The insurer shall notify the director when a payment has been made.

~~E.~~ F. Each policy shall contain a provision allowing assignment of the policy to a successor owner. Such assignment may be conditional upon consent of the insurer, provided that such consent is not unreasonably refused.

~~F.~~ G. The insurance policy shall provide that the insurer may not cancel, ~~or terminate, or fail to renew the policy~~ except for failure to pay the premium. In addition, the policy shall provide that, subject to payment of premium, it will automatically renew on an annual basis for a period of up to 10 years. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may cancel or terminate the policy by sending notice of cancellation or termination by certified mail to the owner and to the department 120 days in advance of cancellation or termination. Within 60 days of receipt of notice from the insurer that it ~~does not intend~~ intends either to ~~renew~~ cancel or terminate the policy, the owner shall obtain alternate financial assurance and submit it to the department.

~~G.~~ H. The owner may cancel the insurance policy only if alternate financial assurance is substituted as specified in this part, or if the owner is no longer required to demonstrate financial responsibility.

~~H.~~ I. Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy) of the United States Code, naming an owner as debtor, the owner shall notify the director by certified mail of such commencement.

~~I.~~ J. The wording of the insurance endorsement shall be identical to the wording specified in 9VAC25-900-350. ACORD Certificates of Insurance are not valid proof of insurance.

9VAC25-900-340. Incapacity of financial providers or owner.

A. An owner that fulfills the requirements of this part by obtaining a trust fund, a letter of credit, a surety bond, or an insurance policy shall be deemed to be without the required financial assurance in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or

of the institution issuing a surety bond, letter of credit, or insurance policy to issue such mechanisms. The owner or operator shall establish other financial assurance within 60 days of such event.

B. An owner shall notify the director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy) of the United States Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. ~~A guarantor of a corporate guarantee as specified in 9VAC20-70-220 shall make such a notification if he is named as debtor, as required under the terms of the corporate guarantee.~~

9VAC25-900-350. Wording of the financial assurance mechanism.

A. The wording of the financial assurance mechanisms shall be as provided in this section.

B. Wording of trust agreements.

(NOTE: Instructions in parentheses are to be replaced with the ~~relevant~~ applicable information for the nutrient credit-generating project's practices (i.e., structural BMPs or wetland/stream restoration) and the non-relevant information and parentheses deleted.)

TRUST AGREEMENT

Trust agreement, the "Agreement," entered into as of (date) by and between (name of the owner), a (State) (corporation, partnership, association, proprietorship), the "Grantor," and (name of corporate trustee), a (State corporation) (national bank), the "Trustee."

Whereas, the State Water Control Board has established certain regulations applicable to the Grantor, requiring that the owner of a nutrient credit-generating ~~entity~~ project must provide assurance that funds will be available when needed for (operation and maintenance and/or repair or replacement of the ~~entity,~~ project's structural BMPs) (monitoring and/or long-term maintenance of the project's wetland/stream restoration),

Whereas, the Grantor has elected to establish a trust to provide (all or part of) such financial assurance for the ~~entity~~ project identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

A. The term "fiduciary" means any person who exercises any power of control, management, or disposition or renders investment advice for a fee or other compensation, direct or indirect, with respect to any moneys or other property of this trust fund, or has any authority or responsibility to do so, or who has any authority or responsibility in the administration of this trust fund.

B. The term "Grantor" means the owner who enters into this Agreement and any successors or assigns of the Grantor.

C. The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of ~~Entity~~ Project and Cost Estimates. This Agreement pertains to ~~entity(ies)~~ project(s) and cost estimates identified on attached Schedule A.

(NOTE: On Schedule A, for each ~~entity~~ project, list, as applicable, name, address, and the current cost estimates for operation and maintenance and/or repair or replacement ~~,~~ for the project's structural BMPs; or the current cost estimates for the monitoring and/or long-term maintenance of the project's wetland/stream restoration, or portions thereof, for which financial assurance is demonstrated by this Agreement.)

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Department of Environmental Quality, Commonwealth of Virginia. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as property consisting of cash or securities, which are acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund will be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee undertakes no responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments to discharge any liabilities of the Grantor established by the Commonwealth of Virginia's Department of Environmental Quality.

Section 4. Payment for (operation and maintenance and/or repair or replacement for the project's structural BMPs) (monitoring and/or long-term maintenance for the project's wetland/stream restoration). The Trustee will make such payments from the Fund as the Department of Environmental Quality, Commonwealth of Virginia will direct, in writing, to provide for the payment of the costs of (operation and maintenance and/or repair or replacement ~~)~~ for the project's structural BMPs) (monitoring and/or long-term maintenance for the project's wetland/stream restoration) of the ~~entity~~ project covered by this Agreement. The Trustee will reimburse the Grantor or other persons as specified by the Department of Environmental Quality, Commonwealth of Virginia, from the Fund for (operation and maintenance and/or repair or replacement for the project's structural BMPs) (monitoring and/or long-term maintenance for the project's

wetland/stream restoration) expenditures in such amounts as the Department of Environmental Quality will direct, in writing. In addition, the Trustee will refund to the Grantor such amounts as the Department of Environmental Quality specifies in writing. Upon refund, such funds will no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the fund will consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee will invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with investment guidelines and objectives communicated in writing to the Trustee from time to time by the Grantor, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling and managing the Fund, the Trustee or any other fiduciary will discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of any enterprise of a like character and with like aims; except that:

A. Securities or other obligations of the Grantor, or any other owner of the ~~entity,~~ project, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 USC § 80a-2(a), will not be acquired or held, unless they are securities or other obligations of the federal or a state government;

B. The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

C. The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

A. To transfer from time to time any or all of the assets of the Fund to any common, commingled or collective trust fund created by the Trustee in which the Fund is eligible to participate subject to all of the provisions thereof, to be commingled with the assets of other trusts participating herein. To the extent of the equitable share of the Fund in any such commingled trust, such commingled trust will be part of the Fund; and

B. To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 USC § 80a-1 et seq., or one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustees may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

A. To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by private contract or at public auction. No person dealing with the Trustee will be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other dispositions;

B. To make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

C. To register any securities held in the fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States government, or any agency or instrumentality thereof with a Federal Reserve Bank, but the books and records of the Trustee will at all times show that all such securities are part of the Fund;

D. To deposit any cash in the fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

E. To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund will be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee will be paid from the Fund.

Section 10. Annual Valuation. The Trustee will annually, at the end of the month coincident with or preceding the anniversary date of establishment of the Fund, furnish the Grantor and to the director of the Department of Environmental Quality, Commonwealth of Virginia, a statement confirming the value of the Trust. Any securities in the Fund will be valued at market value as of no more than 30 days prior to the date of the statement. The failure of the Grantor to object

in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the director of the Department of Environmental Quality, Commonwealth of Virginia will constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee will be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee will be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon acceptance of the appointment by the successor trustee, the Trustee will assign, transfer and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee and the date on which he assumes administration of the trust will be specified in writing and sent to the Grantor, the director of the Department of Environmental Quality, Commonwealth of Virginia, and the present trustees by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section will be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests and instructions by the Grantor to the Trustee will be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee will be fully protected in acting without inquiry in accordance with the Grantor's orders, requests and instructions. All orders, requests, and instructions by the Director of the Department of Environmental Quality, Commonwealth of Virginia, to the Trustee will be in writing, signed by the Director and the Trustee will act and will be fully protected in acting in accordance with such orders, requests and instructions. The Trustee will have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Commonwealth of Virginia's Department of Environmental Quality hereunder has occurred. The Trustee will have no duty to act in the absence of such orders, requests and instructions from the Grantor and/or the Commonwealth of Virginia's Department of Environmental Quality, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee will notify the Grantor and the Director of the Department of Environmental Quality, Commonwealth of Virginia, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee is not required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director of the Department of Environmental Quality, Commonwealth of Virginia, or by the Trustee and the Director of the Department of Environmental Quality, Commonwealth of Virginia, if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust will be irrevocable and will continue until terminated at the written agreement of the Grantor, the Trustee, and the Director of the Department of Environmental Quality, Commonwealth of Virginia, or by the Trustee and the Director if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, will be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee will not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director of the Department of Environmental Quality, Commonwealth of Virginia, issued in accordance with this Agreement. The Trustee will be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement will be administered, construed and enforced according to the laws of the Commonwealth of Virginia.

Section 20. Interpretation. As used in the Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement will not affect the interpretation of the legal efficacy of this Agreement.

In witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is substantively identical to the wording specified in 9VAC25-900-350 B, as such regulations were constituted on the date shown immediately below.

(Signature of Grantor)

By: (Title) (Date)

Attest:

(Title) (Date)

(Seal)

(Signature of Trustee)

By

Attest:

(Title)

(Seal) (Date)

Certification of Acknowledgment:

COMMONWEALTH OF VIRGINIA

STATE OF _____

CITY/COUNTY OF _____

On this date, before me personally came (owner) to me known, who being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

C. Wording of surety bond guaranteeing performance or payment.

(NOTE: Instructions in parentheses are to be replaced with the ~~relevant~~ applicable information for the nutrient credit-generating project's practices (i.e., structural BMPs or wetland/stream restoration) and the non-relevant information and parentheses deleted.)

PERFORMANCE OR PAYMENT BOND

Date bond executed: _____

Effective date: _____

Principal: (legal name and business address) _____

Type of organization: (insert "individual," "joint venture," "partnership," or "corporation") _____

State of incorporation: _____

Surety: (name and business address) _____

Name, address, and ~~(operation and maintenance and/or replacement)~~ cost estimate or estimates for the ~~entity~~ project: _____

Penal sum of bond: $_____

Surety's bond number: _____

Know all men by these present, That we, the Principal and Surety hereto are firmly bound to the Department of Environmental Quality, Commonwealth of Virginia, (hereinafter called the Department) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of each sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas, said Principal is required to have from the Department of Environmental Quality, Commonwealth of Virginia, in order to own or operate the, nutrient credit-generating ~~entity~~ project identified above, and

Whereas, said Principal is required to provide financial assurance for (operation and maintenance and/or repair or replacement for the project's structural BMPs) (monitoring and/or long-term maintenance for the project's wetland/stream restoration) of the ~~entity~~ project as a condition of an order issued by the department,

Now, therefore the conditions of this obligation are such that if the Principal shall faithfully perform (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration), whenever required to do so, of the ~~entity~~ project identified above in accordance with the order or the (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) submitted to receive and other requirements of as such plan and may be amended or renewed pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall faithfully perform (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) following an order to begin (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) issued by the Commonwealth of Virginia's Department of Environmental Quality or by a court, or following a notice of termination of the permit,

Or, if the Principal shall provide alternate financial assurance as specified in the Department's regulations and obtain the director's written approval of such assurance, within 90 days of the date notice of cancellation is received by the Director of the Department of Environmental Quality from the Surety, then this obligation will be null and void, otherwise it is to remain in full force and effect for the life of the nutrient credit-generating ~~entity~~ project identified above.

The Surety shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Director of the Department of Environmental Quality, Commonwealth of Virginia, that the Principal has been found in violation of the requirements of the Department's regulations, the Surety must either perform (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) in accordance with the approved plan and other requirements or forfeit the (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) amount guaranteed for the nutrient credit-generating ~~entity~~ project to the Commonwealth of Virginia.

Upon notification by the Director of the Department of Environmental Quality, Commonwealth of Virginia, that the Principal has been found in violation of an order to begin operation and maintenance and/or replacement) the Surety must either perform (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) in accordance with the order or forfeit the amount of the (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) guaranteed for the nutrient credit-generating ~~entity~~ project to the Commonwealth of Virginia.

The Surety hereby waives notification of amendments to the operation and maintenance and/or replacement, orders, applicable laws, statutes, rules, and regulations and agrees that such amendments shall in no way alleviate its obligation on this bond.

For purposes of this bond, (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) shall be deemed to have been completed when the Director of the Department of Environmental Quality, Commonwealth of Virginia, determines that the conditions of the approved plan have been met.

The liability of the Surety shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but the obligation of the Surety hereunder shall not exceed the amount of said penal sum unless the Director of the Department of Environmental Quality, Commonwealth of Virginia, should prevail in an action to enforce the terms of this bond. In this event, the Surety shall pay, in addition to the penal sum due under the terms of the bond, all interest accrued from the date the Director of the Department of Environmental Quality, Commonwealth of Virginia, first ordered the Surety to perform. The accrued interest shall be calculated at the judgment rate of interest pursuant to § 6.2-302 of the Code of Virginia.

The Surety may cancel the bond by sending written notice of cancellation to the owner and to the Director of the Department of Environmental Quality, Commonwealth of Virginia, provided, however, that cancellation cannot occur (1) during the 120 days beginning on the date of receipt of the notice of cancellation by the director as shown on the signed return receipt; or (2) while an enforcement action is pending.

The Principal may terminate this bond by sending written notice to the Surety, provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the bond by the Director of the Department of Environmental Quality, Commonwealth of Virginia.

In witness whereof, the Principal and Surety have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety and I hereby certify that the wording of this surety bond is substantively identical to the wording specified in 9VAC25-900-350 C as such regulations were constituted on the date shown immediately below.

Principal

Signature(s): _____

Name(s) and Title(s): (typed)_____

Corporate Surety
Name and Address:_____
State of Incorporation:_____
Liability Limit: $___
Signature(s):_____
Name(s) and Title(s): (typed)_____
Corporate Seal:

D. Wording of irrevocable standby letter of credit.

(NOTE: Instructions in parentheses are to be replaced with the ~~relevant~~ applicable information for the nutrient credit-generating project's practices (i.e., structural BMPs or wetland/stream restoration) and the non-relevant information and parentheses deleted.)

IRREVOCABLE STANDBY LETTER OF CREDIT

Director
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

Dear (Sir or Madam):

We hereby establish our Irrevocable Letter of Credit No..... in your favor at the request and for the account of (owner's name and address) up to the aggregate amount of (in words) U.S. dollars $____, available upon presentation of

1. Your sight draft, bearing reference to this letter of credit No ____ together with

2. Your signed statement declaring that the amount of the draft is payable pursuant to regulations issued under the authority of the Department of Environmental Quality, Commonwealth of Virginia.

The following amounts are included in the amount of this letter of credit: (Insert the nutrient credit-generating ~~entity~~ project name and address, and the ~~operation and maintenance and/or replacement~~ appropriate cost estimate or estimates, or portions thereof, for which financial assurance is demonstrated by this letter of credit.)

This letter of credit is effective as of (date) and will expire on (date at least one year later), but such expiration date will be automatically extended for a period of (at least one year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you and (owner or operator's name) by certified mail that we decide not to extend the Letter of Credit beyond the current expiration date. In the event you are so notified, unused portion of the credit will be available upon presentation of your sight draft for 120 days after the date of receipt by you as shown on the signed return receipt or while a compliance procedure is pending, whichever is later.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we will duly honor such draft upon presentation to us, and we will pay to you the amount of the draft promptly and directly.

I hereby certify that I am authorized to execute this letter of credit on behalf of (issuing institution) and I hereby certify that the wording of this letter of credit is substantively identical to the wording specified in 9VAC25-900-350 D as such regulations were constituted on the date shown immediately below.

Attest:

(Print name and title of official of issuing institution) (Date)_____

(Signature) (Date)

This credit is subject to the most recent edition of the Uniform Customs and Practice for Documentary Credits, International Chamber of Commerce Publication No. 600, and any subsequent revisions thereof approved by a congress of the International Chamber of Commerce and adhered to by us. If this credit expires during an interruption of business as described in Article 36 of said Publication 600, the bank hereby specifically agrees to effect payment if this credit is drawn against within thirty (30) days after resumption of our business.

E. Assignment of certificate of deposit account.

City_____, 20___

FOR VALUE RECEIVED, the undersigned assigns all right, title and interest to the Virginia Department of Environmental Quality, Commonwealth of Virginia, and its successors and assigns the Virginia Department of Environmental Quality the principal amount of the instrument, including all moneys deposited now or in the future to that instrument, indicated below:

This assignment includes all interest now and hereafter accrued.

Certificate of Deposit Account No._____

This assignment is given as security to the Virginia Department of Environmental Quality in the amount of _____ Dollars ($_____).

Continuing Assignment. This assignment shall continue to remain in effect for all subsequent terms of the automatically renewable certificate of deposit.

Assignment of Document. The undersigned also assigns any certificate or other document evidencing ownership to the Virginia Department of Environmental Quality.

Additional Security. This assignment shall secure the payment of any financial obligation of the (name of owner) to the Virginia Department of Environmental Quality for (operation and maintenance and/or repair or replacement of structural BMPs) (monitoring wetland/stream restoration) at the ~~(entity~~ (project name) located (physical address).

Application of Funds. The undersigned agrees that all or any part of the funds of the indicated account or instrument may be applied to the payment of any and all financial assurance obligations of (name of owner) to the Virginia Department of Environmental Quality for (operation and maintenance and/or repair or replacement) (monitoring) at the ~~(entity~~ (project name and address). The undersigned authorizes the Virginia Department of Environmental Quality to withdraw any principal amount on deposit in the indicated account or instrument including any interest, if indicated, and to apply it in the Virginia Department of Environmental Quality's discretion to fund (operation and maintenance and/or repair or replacement) (monitoring) at the ~~(entity~~ (project name) or in the event of (owner) failure to comply with the 9VAC25-900. The undersigned agrees that the Virginia Department of Environmental Quality may withdraw any principal and/or interest from the indicated account or instrument without demand or notice. (The undersigned) agrees to assume any and all loss of penalty due to federal regulations concerning the early withdrawal of funds. Any partial withdrawal of principal or interest shall not release this assignment.

The party or parties to this Assignment set their hand or seals, or if corporate, has caused this assignment to be signed in its corporate name by its duly authorized officers and its seal to be affixed by authority of its Board of Directors the day and year above written.

_____ SEAL

(Owner)

_____

(print owner's name)

_____ SEAL

(Owner)

_____

(print owner's name)

THE FOLLOWING SECTION IS TO BE COMPLETED BY THE BRANCH OR LENDING OFFICE:

The signature(s) as shown above compare correctly with the name(s) as shown on record as owner(s) of the Certificate of Deposit indicated above. The above assignment has been properly recorded by placing a hold in the amount of $ _____ for the benefit of the Department of Environmental Quality.

The accrued interest on the Certificate of Deposit indicated above shall be maintained to capitalize versus being mailed by check or transferred to a deposit account.

_____

(Signature) (Date)

_____

(print name)

_____

(Title)

F. Wording of insurance endorsement.

ENDORSEMENT.

~~[~~ (NOTE: ~~The instructions~~ Instructions in ~~brackets~~ parentheses are to be replaced ~~by~~ with the ~~relevant~~ applicable information ~~and~~ for the ~~brackets~~ nutrient credit-generating project's practices (i.e., structural BMPs or restoration) and the non-relevant information and parentheses deleted.)

Name: ~~[~~ (name of each covered location ~~]~~)

Address: ~~[~~ (address of each covered location ~~]~~)

Policy number:

Period of coverage: ~~[~~ (current policy period ~~]~~)

Name of Insurer:

Address of Insurer:

Name of insured:

Address of insured:

Endorsement:

1. This endorsement certifies that the policy to which the endorsement is attached provides insurance covering the (operation and maintenance and/or repair or replacement of the nutrient credit-generating project's structural BMPs) (monitoring of the nutrient credit-generating project's wetland/stream restoration) in connection with the insured's obligation to demonstrate financial responsibility under the 9VAC25-900).

[(List the name(s) and address(es) of the nutrient credit-generating ~~entity(s)~~ project(s)) for [~~insert: "operation~~ (the operation and maintenance and/or repair or replacement of the nutrient credit-generating ~~entity~~ project's structural BMPs) (monitoring of the nutrient credit-generating project's wetland/stream restoration) in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy;

The limits of liability are [~~insert the~~ (provide the dollar amount of the operation and maintenance, monitoring, and/or repair or replacement), exclusive of legal defense costs, which, if applicable, are subject to a separate limit under the policy. This coverage is provided under (provide the policy number). The effective date of said policy is ~~date~~ (insert the effective date).

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (d) for occurrence policies and (a) through (e) for claims-made policies of this paragraph 2 are hereby amended to conform with subsections (a) through (e):

a. Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligations under the policy to which this endorsement is attached.

b. The insurer is liable for the payment of amounts within any deductible applicable to the policy to the provider of monitoring, operation and maintenance and/or repair or replacement, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 9VAC25-900.

c. Whenever requested by the State Water Control Board, the insurer agrees to furnish to State Water Control Board a signed duplicate original of the policy and all endorsements.

d. The insurer may not ~~fail to renew~~ cancel or terminate the policy during the policy period except for failure to pay the premium. The policy shall automatically renew at the department's discretion on an annual basis for a period of up to ten years. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy.

e. The insured may cancel the insurance policy only if alternate financial assurance is substituted as specified in 9VAC25-900, or if the owner is no longer required to demonstrate financial responsibility in accordance with 9VAC25-900.

f. Cancellation for nonpayment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 120 days after a copy of such written notice is received by the insured and the State Water Control Board.

[(Insert for claims made policies:])

g. The insurance covers claims otherwise covered by the policy that are reported to the insurer within six months of the effective date of cancellation or nonrenewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.

I hereby certify that the wording of this endorsement is in no respect less favorable than the coverage specified in 9VAC25-900. I further certify that the insurer is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in the Commonwealth of Virginia.

[(Signature of authorized representative of insurer])

[(Name of the person signing])

[(Title of the person signing), authorized representative of [(name of the insurer])

[(Address of the representative])

(Title of person signing)

Signature of witness or notary:

(Date)

DOCUMENTS INCORPORATED BY REFERENCE (9VAC25-900)

DCR Specifications for No. FR-3, Woodland Buffer Filter Area, Virginia Agricultural Cost Share BMP Manual, Program Year ~~2014, July 2013,~~ [~~2018~~ (rev. [~~March 2016)~~ April 2019], Department of Conservation and Recreation

DCR Specifications for No. SL-8B, Small Grain Cover Crop for Nutrient Management and Residue Management, Virginia Agricultural Cost Share BMP Manual, Program Year ~~2014, July 2013,~~ 2018 (rev. [~~March 2017)~~ April 2019)], Department of Conservation and Recreation

DCR Specifications for No. [~~WP-2~~ WP-2W] , Stream Protection, Virginia Agricultural Cost Share BMP Manual, Program Year ~~2014, July 2013,~~ 2018 (rev. [~~March 2016)~~ April 2019)], Department of Conservation and Recreation

DCR Specifications for No. WQ-1, Grass Filter Strips, Virginia Agricultural Cost Share BMP Manual, Program Year ~~2014, July 2013,~~ 2018 (rev. [~~March 2016)~~ April 2019)], Department of Conservation and Recreation

Virginia's Forestry Best Management Practices for Water Quality Technical Manual, Fifth Edition 2011, Department of Forestry. Available at http://www.dof.virginia.gov/infopubs/BMP-Technical-Guide_pub.pdf.

Virginia Chesapeake Bay TMDL Phase I Watershed Implementation Plan, November 29, 2010, Department of Environmental Quality

Virginia Chesapeake Bay TMDL Phase II Watershed Implementation Plan, March 30, 2012, Department of Environmental Quality

[Virginia Agricultural BMP Cost Share Manual, Program Year 2020, Department of Conservation and Recreation, Division of Soil and Water Conservation, Richmond, Virginia.

Virginia Invasive Plant Species List, 2014, Department of Conservation and Recreation, Division of Natural Heritage, Richmond, Virginia.

Field Office Technical Guide, Natural Resources Conservation Service, United States Department of Agriculture, Washington, D.C. (Web-based document available at the following internet address: https://efotg.sc.egov.usda.gov/#/details).]

Request to adopt exempt final amendment to Water Resources Policy (9VAC25-390) regulation: At the December 13, 2019, meeting of the State Water Control Board (Board), Department of Environmental Quality (DEQ) staff will request the Board to accept final amendments to the Water Resources Policy (9VAC25-390) regulation. This regulatory amendment will be processed using the exempt final regulatory process. Section 2.2-4006 A 3 of the Code of Virginia allows for regulations to be amended to make technical corrections. This regulation is a statement of broad water resource management principles that provided guidance to staff in preparing water resource management plans and advising or commenting on water resource projects. This amendment corrects a citation referencing the Code of Virginia and the name of the Groundwater Management Act.

Request to adopt exempt final amendment to Sewage Treatment in the Dulles Area Watershed (9VAC25-401) regulation: At the December 13, 2019, meeting of the State Water Control Board (Board), Department of Environmental Quality (DEQ) staff will request the Board to accept final amendments to the Sewage Treatment in the Dulles Area Watershed (9VAC25-401) regulation. This regulatory amendment will be processed using the exempt final regulatory process. Section 2.2-4006 A 3 of the Code of Virginia allows for regulations to be amended to make technical corrections. The regulation limits the number of sewage treatment plants in the Dulles Area watershed to two and specifies additional criteria the treatment facilities are required to meet. This amendment corrects a typographical error in §30 and a citation in §40 of the regulation. The town hall document further details the proposed change to this regulation.

Request to Adopt Fast-Track Amendments to the Fees for Permits and Certificates (9VAC25-20 et seq.) regulation: At the December 13, 2019, meeting of the State Water Control Board (Board), Department of Environmental Quality (DEQ) staff will request the Board to accept final amendments to the Fees for Permits and Certificates (9VAC25-20 et seq.) regulation. This regulatory amendment will be processed using the fast-track regulatory process. Section 2.2-4012.1 of the Code of Virginia allows for regulations to be modified using the fast-track process when changes are expected to be noncontroversial. A periodic review was recently conducted for this regulation and the result of the review was to amend the regulation to remove fees that are no longer needed. This amendment removes Municipal Separate Storm Sewer System (MS4) and Construction Activity permitting fees from this regulation. These fees in 9VAC25-20 are a carryover from when the stormwater program was administered by DEQ prior to the program's transfer to the Department of Conservation and Recreation (DCR) (in January 2005). Permit fees for MS4 and construction activities are assessed under the Virginia Stormwater Management Program (VSMP) Regulation (9VAC25-870) and are no longer needed in 9VAC25-20.

Request to Repeal General Regulations Under State Water Control Law Requirement No. 1 (9VAC25-80) using the Fast-Track Regulatory Process: The staff will bring to the State Water Control Board (Board) at their December 13, 2019 meeting a request to repeal the General Regulations Under State Water Control Law- Requirement No. 1 (9VAC25-80). The repeal of this regulation will be processed using the fast-track regulatory process. Section 2.2-4012.1 of the Code of Virginia allows for regulations to be repealed using the fast-track process when changes are

expected to be noncontroversial. This regulation prohibits owners of a sewerage system or sewage treatment plant serving more than 400 people from discharging untreated or inadequately treated sewage, from connecting to an existing sewer, or from extending the sewer unless authorized by the board. Prior to 2003, supervision and control for the supervision and control of sewerage systems and sewage treatment works was a joint responsibility of the State Board of Health and the State Water Control Board (Board). In 2003, the supervision and control of sewerage systems and sewage treatment works was transferred from the State Board of Health to the State Water Control Board. The Board's Sewage Collection and Treatment (SCAT) Regulations, 9VAC25-790-10 et seq., do not allow a person to construct, expand, or modify a sewerage system or sewage treatment works except in compliance with a Certificate to Construct from the Department and in accordance with the detailed standards contained within the regulations. As a result, the more generalized requirements of 9VAC25-80-10 et seq. (General Regulations under State Water Control Law - Requirement No. 1) can be repealed moving forward.

Report On Facilities In Significant Noncompliance: There were no facilities reported to EPA on the Quarterly Noncompliance Report as being in significant noncompliance for the quarter ending June 30, 2019. Update on Alexandria Renew: DEQ NRO staff are still working with Alexandria Renew to resolve the current enforcement action.

Clean Water Financing and Assistance Program – Program Updates: The purpose of this memo is to inform the State Water Control Board of three updates within the Clean Water Financing and Assistance Program (CWFAP): 1) Alexandria Combined Sewer Overflow (CSO) update, 2) Virginia Clean Water Revolving Loan Fund (VCWRLF) – Agricultural BMP Loan Program update, and 3) Change to the VCWRLF administrative fee.

Alexandria Renew CSO update

During the 2019 session, the General Assembly authorized $25 million in bond proceeds through the Department of Environmental Quality to the state's CSO Fund to provide a $25 million grant to the City of Alexandria to pay a portion of the capital costs for their CSO project. A grant agreement is being drafted to establish the grant recipient as the City of Alexandria and the grant user as Alexandria Renew Enterprises which serves as the sanitation authority for the City. The CWFAP will proceed with the disbursement of the grant funds in the amount of $25 million for the Alexandria CSO project.

VCWRLF – Agricultural BMP Loan Program update

On June 27, 2019, the State Water Control Board approved revisions to the Agricultural BMP Loan Program guidelines and the program resumed accepting applications on July 1, 2019. As of October 2019, the program has received 60 applications for a total of $9,806,865. The program currently has approximately $18 million in funds from a combination of set-asides and repayments of principal and interest from previous Ag BMP loans. In order to continue to provide loan assistance to agricultural producers, the program will be providing another set-aside of $10 million from the VCWRLF to the Agricultural BMP Loan program.

VCWRLF – Administrative Fee

Previously, the State Water Control Board approved the implementation of an annual administrative fee to be placed on all VCWRLF ceiling rate loans for wastewater projects. The annual fee is 0.2% and is intended to help support the administrative costs of the program. The fee is embedded in the interest rate approved by the Board ensuring that loan recipients do not pay a rate of interest greater than the approved rate. The program absorbs the impact of the fee and borrowers do not incur additional costs. In order to continue to provide administrative management of the VCWRLF, the staff recommend implementing the fee on all VCWRLF interest bearing loans.

FY 2020 Virginia Clean Water Revolving Loan Fund Final Authorizations: Title IV of the Clean Water Act requires the annual submission of a Project Priority List and Intended Use Plan in conjunction with Virginia's Clean Water Revolving Loan Fund Capitalization Grant application. Section 62.1-229 of Chapter 22, Code of Virginia, authorizes the Board to establish to whom loans are made, the loan amounts, and repayment terms. The next step in this process is for the Board to set the loan terms and authorize the execution of the loan agreements.

Background

On June 10, 2019, Clean Water Financing and Assistance Program (CWFAP) staff solicited applications from the Commonwealth's localities and wastewater authorities as well as potential land conservation, living shoreline, and

brownfield remediation applicants. July 26, 2019 was established as the deadline for receiving applications. Based on this solicitation, DEQ received 22 wastewater improvement applications requesting $645,369,292, two (2) stormwater applications requesting $13,906,464, and one (1) brownfield application requesting $373,086, bringing the total amount requested to $659,648,842.

By memorandum dated October 2, 2019, the Director of DEQ tentatively approved the list of 25 projects for which loan assistance was requested from available and anticipated FY 2020 resources and authorized staff to proceed to public comment. A listing of the projects in priority order and a brief description of each is provided below A. A public meeting was convened on November 4th. Notice of the meeting was posted on the Virginia Regulatory Town Hall and DEQ's CWFAP website. Several comments supporting the staff recommended projects were received.

Discussion

The staff has conducted initial meetings with the FY 2020 targeted recipients and has finalized the recommended loan amounts, interest rates, and loan terms in accordance with the Board's guidelines. One project scope and requested loan amount changed from the list tentatively approved due to project delays. No other changes from the tentative approval list previously approved are being recommended.

The loan terms listed in the table below are submitted for Board consideration. In accordance with Board guidelines, a residential user charge impact analysis was conducted for each wastewater project. This analysis determines the anticipated user charges as a result of the project relative to the affordable rate as a percentage of the applicant's median household income. Projects involving higher user charges relative to income generally receive lower interest rates than those with relatively lower user charges.

As in the last two years, we are proposing that the ceiling rate subsidy for wastewater related projects differ depending on the term of the loan, such that 20-year ceiling loan rates are set at 1.50% (150 basis points) below market, 25-year ceiling loan rates are 1.25% (125 basis points) below market, and 30-year ceiling loan rates are 1.00% (100 basis points) below market. Market rates would be based on an evaluation by Virginia Resource Authority (VRA) of the market conditions that exist about a month prior to each loan closing or the actual leveraged bond issue. For projects such as wastewater treatment plants and pump stations that involve significant mechanical equipment, the maximum loan term would be up to 25 years, whereas the term for projects that primarily involve wastewater conveyance piping installation or improvements and projects funding using programmatic financing could be up to 30 years and no longer than the expected useful life of the project.

In order to maintain the health of the fund and meet the program requirement to ensure the greatest financial and environmental benefit to as many communities as possible, we are recommending funding the two largest projects in two portions, one portion using the ceiling rate and one using the market rate plus administrative fee. These two projects and amounts can be found in the table below (4a, 4b, 8a, 8b). It is anticipated that leverage bonds will be issued by VRA to fund these and other ceiling rate loans.

Congress has not finalized the federal State Revolving Fund appropriation for FY 2020. As such, we are unsure as to the amount, if any, that could be made available as principal forgiveness in FY 2020. The staff will analyze the projects with regard to the program's hardship affordability criteria and will be prepared to work with the Director on providing principal forgiveness to some projects as allowed by previous delegations if it is provided for by the federal appropriation.

FY 2020 Proposed Interest Rates and Loan Authorizations

	Locality	*Loan Amount*	*Rates and Loan Terms*
1	Spotsylvania County	$ 34,559,721.00	CR, up to 20 years
2	BVU Authority	$ 7,294,000.00	0.5%, up to 25 years
3	Town of Exmore	$ 300,000.00	0.5%, up to 20 years
4a	Alexandria Renew Enterprises	$ 160,650,000.00	CR, up to 30 years
4b	Alexandria Renew Enterprises	$ 154,350,000.00	MR, up to 30 years
5	Hampton Roads Sanitation District	$ 24,257,350.00	CR, up to 30 years
6	Town of Marion	$ 628,200.00	0.5%, up to 25 years
7	Middle Peninsula PDC	$ 200,000.00	0.5%, up to 10 years
8a	Hampton Roads Sanitation District	$ 100,000,000.00	CR, up to 30 years
8b	Hampton Roads Sanitation District	$ 78,712,494.00	MR, up to 30 years
9	City of Norfolk	$ 9,000,000.00	0.5%, up to 30 years
10	Wise County Public Service Authority	$ 315,805.00	0.5%, up to 30 years
11	Wise County Public Service Authority	$ 404,132.00	0.5%, up to 30 years
12	Town of Richlands	$ 10,916,316.00	0.5%, up to 25 years
13	Upper Occoquan Service Authority	$ 27,750,000.00	CR, up to 20 years
14	City of Norton	$ 303,200.00	0.5%, up to 20 years
15	Town of Iron Gate	$ 6,315,723.00	0.5%, up to 30 years
16	Town of Rural Retreat	$ 2,788,601.00	CR, up to 30 years
17	Town of Altavista	$ 4,327,000.00	CR, up to 20 years
18	Western Virginia Water Authority	$ 11,192,600.00	CR, up to 20 years
19	Scott County Public Service Authority	$ 303,500.00	0.5%, up to 25 years
20	Wise County Public Service Authority	$ 200,000.00	0.5%, up to 25 years
21	Upper Occoquan Service Authority	$ 9,790,000.00	CR, up to 20 years
22	Wythe County	$ 810,650.00	0.5%, up to 25 years
23	City of Norfolk	$ 11,981,864.00	0.5%, up to 20 years
24	City of Martinsville	$ 1,924,600.00	0.5%, up to 25 years
25	City of Norfolk	$ 373,086.00	P-300 BP, up to 10 years
	TOTAL	$659,648,842.00	

CR = Ceiling Rate, MR = Market Rate plus admin fee, P = Prime, BP = Basis Points