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Final Regulation
Agency Background Document

Agency name	State Water Control Board
Virginia Administrative Code (VAC) citation(s)	9VAC25-900
Regulation title(s)	Certification of Nonpoint Source Nutrient Credits
Action title	New regulation for certification of nonpoint source nitrogen and phosphorus nutrient credits.
Date this document prepared	November 15, 2019 and revised January 3, 2020

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations.*

Brief Summary

Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

This regulation establishes the process for the certification of nonpoint source nitrogen and phosphorus nutrient credits and assures the generation of those credits. The 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. Nonpoint source nutrient credits must be certified by the Department prior to release, placement on the registry and exchange. The agency developed this regulation as required pursuant to § 62.1-44.19:20 of the State Water Control Law.

The changes made are detailed in the *Details Since the Previous State* section.

Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the "Definition" section of the regulations.

"APA" means the Administrative Process Act.

"BMP" means best management practices.

"Board" means the State Water Control Board.

"RAP" means the Regulatory Advisory Panel.

”SWCL” means the State Water Control Law.

“TMDL” means the total maximum daily load of a pollutant that a waterbody can receive without resulting in an impaired status of the waterbody.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

On December 13, 2019, the State Water Control Board took final action and adopted the new regulation, Certification of Nonpoint Source Nutrient Credits, 9 VAC 25-900.

As part of this action, the Board voted unanimously to:
1. Amend the text of 9VAC25-900-90 to move subsection D to a new section – 9VAC25-900-91 and adopt the regulation presented as amended.
2. Defer submittal of the new 9VAC25-900-91 to the Virginia Register of Regulations (Register) for final publication until such time as (i) the Department receives approval of 9VAC25-900-91 pursuant to Executive Order No. 14 (2018) and (ii) the earlier of the date the guidance is submitted to the Register for publication pursuant to §2.2-4002.1, or September 1, 2020.
3. Direct the Department to seek input on the development of guidance to implement 9VAC25-900-91 from a representative of each of the following: (i) private nutrient bank developers, (ii) conservation organizations, (iii) local governments, and (iv) nonpoint nutrient credit users.

Mandate and Impetus

Please list all changes to the information reported on the Agency Background Document submitted for the previous stage regarding the mandate for this regulatory change, and any other impetus that specifically prompted its initiation. If there are no changes to previously-reported information, include a specific statement to that effect.

There was no change to the mandate and impetus for this regulation since the previous stage. As required by Subsection A of § 62.1-44.19:20 of the State Water Control Law requires the Board to adopt regulations for the certification of nonpoint source nutrient credits.

Legal Basis

Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity’s overall regulatory authority.

The state authority to promulgate the regulation is pursuant to Chesapeake Bay Watershed Nutrient Credit Program, Article 4.02 of the State Water Control Law. Specifically, the regulatory authority for the Board is contained at § 62.1-44.19:20 of the State Water Control Law which states under Subsection A: "The Board shall adopt regulations for the purpose of establishing procedures for the certification of nonpoint source nutrient credits."

Under Subsection B of § 62.1-44.19:20 of the State Water Control Law, the regulatory language may include but not be limited to: (i) establishing procedures for the certification and registration

of credits; (ii) establishing credit calculation procedures; (iii) providing certification of credits on a temporal basis; (iv) establishing requirements to reasonably assure the generation of credits; (v) establishing reporting requirements; (vi) providing the Department the ability to audit/inspect for compliance; (vii) providing that the option to acquire nutrient credits for compliance purposes shall not eliminate any requirement to comply with local water quality requirements; (viii) establishing a credit retirement requirement; and, (ix) establishing other requirements as the Board deems necessary and appropriate.

Additionally, § 62.1-44.15 (10) of the State Water Control Law authorizes the State Water Control Board to adopt such regulations as it deems necessary to enforce the general water quality management program of the Board in all or part of the Commonwealth.

Purpose

Please explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it's intended to solve.

Pursuant to § 62.1-44.19:20 of the State Water Control Law, the Board is required to adopt regulations for the certification of nonpoint source nutrient credits. Nonpoint credits established by the Board in accordance with the legislation and this regulatory action may include credits generated from agricultural and urban stormwater best management practices, management of animal feeding operations, land use conversion, and other established or innovative methods of nutrient control or removal. As part of the revised proposed regulation, additional provisions for the generation of nonpoint source nutrient credits from stream or wetlands restoration have also been incorporated.

In order to be placed on a registry of credits for exchange, the nonpoint source nutrient credits must be certified. These certified credits that are placed on the registry will be part of an enforceable market-based trading program that will involve the exchange of pollution allocations between sources. This regulation is anticipated to make available nonpoint source nutrient credits to further trading avenues such as point source to nonpoint source trades or nonpoint to nonpoint trades. These trades will be part of the overall goal of meeting the reductions assigned by the Chesapeake Bay Watershed Implementation Plan and the Chesapeake Bay TMDL.

This regulation is another step towards a successful trading program for nutrient credits. The regulation provides clarity and assurances regarding the process for certification of nonpoint source nutrient credits for both the nutrient credit generating project and prospective credit purchasers.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the "Detail of Changes" section below.

In accordance with § 62.1-44.19:20 of the State Water Control Law, the Board was directed to adopt regulations for the purpose of establishing the certification of nonpoint source nutrient credits. The Board approved a proposed regulation for public comment. Based on the public comment received, the RAP was reconvened to provide input on topics that required additional consideration. The final regulation has been developed based on: (i) two different RAP processes (one used to assist in the development of the proposed regulation and a second RAP used to assist in the development of a revised proposed regulation); (ii) public comment received on the proposed and revised proposed regulations; (iii) statutory changes; and, (iv) the Department's programmatic experience. No substantive changes were made to the final

regulation from the revised proposed regulation. The changes made are discussed in the "Detail of Changes" section below.

Issues

Please identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

The primary advantage of this regulatory action is that the regulation provides clarity and certainty for the nutrient trading market by establishing appropriate procedures for the certification of nonpoint source credits. This is an advantage to the nutrient credit-generating community, the public, and the Commonwealth as regulatory certainty is necessary to ensure investment in the nutrient trading market and to ensure that nutrient trading requirements are applied consistently throughout the Commonwealth. The framework and content of this regulatory action largely tracks the specifics outlined in § 62.1-44.19:20 of State Water Control Law regarding the promulgation of these regulations.

The regulation provides clarity and certainty for those persons that voluntarily choose to certify nonpoint source nutrient credits. This regulation should pose no disadvantages to the public or to the Commonwealth and, it is hoped that the nonpoint source trading program will help the Commonwealth with reaching its goals under the Chesapeake Bay Watershed Implementation Plan.

Requirements More Restrictive than Federal

Please list all changes to the information reported on the Agency Background Document submitted for the previous stage regarding any requirement of the regulatory change which is more restrictive than applicable federal requirements. If there are no changes to previously-reported information, include a specific statement to that effect.

There are no applicable federal regulations.

Agencies, Localities, and Other Entities Particularly Affected

Please list all changes to the information reported on the Agency Background Document submitted for the previous stage regarding any other state agencies, localities, or other entities that are particularly affected by the regulatory change. If there are no changes to previously-reported information, include a specific statement to that effect.

Other State Agencies Particularly Affected:

This final regulation is a voluntary regulation. There are no requirements that any other state agency is mandated to meet.

Localities Particularly Affected:

This final regulation is a voluntary regulation. There are no requirements that a locality is mandated to meet unless the locality itself chooses to certify nutrient credits for exchange on the registry. Therefore, there are no localities particularly affected by the revised proposed regulation.

Other Entities Particularly Affected:

This revised proposed regulation is a voluntary regulation. There are no requirements that any other entity is mandated to meet unless the entity chooses to certify nutrient credits and place those credits on the registry for exchange. Existing nutrient banks and credit purchasing entities

are potentially affected by new provisions governing the exchange of credits in watersheds with local water quality impairments. These provisions are designed to protect local water quality in accordance with § 62.1-44.19:20 B 7 of the State Water Control Law.

Regulatory Flexibility Analysis

Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency's analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

Section 62.1-44.19:20 of the State Water Control Law directs the Board to adopt regulations governing the certification of nonpoint source nutrient credits and provides general requirements for the regulations. The framework and content of this regulation tracks the requirements specified in § 62.1-44.19:20. In working with the RAPs, the Department sought to establish compliance and reporting requirements that provided only the information necessary to determine compliance and were on a workable schedule. Small business exemptions are not provided as no statutory authority exists for such an exemption and as this program is entirely voluntary. Any entity that chooses to generate nonpoint source nutrient credits for exchange as part of the trading program is required to certify those credits in accordance with this regulation.

Periodic Review and Small Business Impact Review Report of Findings

Indicate whether the regulatory change meets the criteria set out in Executive Order 14 (as amended, July 16, 2018), e.g., is necessary for the protection of public health, safety, and welfare; minimizes the economic impact on small businesses consistent with the stated objectives of applicable law; and is clearly written and easily understandable. In addition, as required by § 2.2-4007.1 E and F of the Code of Virginia, include a discussion of the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation from the public; (3) the complexity of the regulation; (4) the extent to the which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation.

As part of the NOIRA's and the proposed regulation's comment period, comments on the impacts on small businesses were requested to include information on: 1) projected reporting, recordkeeping and other administrative costs; 2) the probable effect of the regulation on affected small businesses; and, 3) the description of less intrusive or costly alternatives for achieving the purpose of the regulation. No comments were submitted regarding impacts to small businesses during either the NOIRA's or proposed regulation's public comment period.

The agency developed this regulation as required pursuant to § 62.1-44.19:20 of the State Water Control Law. The regulation has been drafted pursuant to the requirements of § 62.1-44.19:20 in a manner that is protective of public health, safety, and welfare, and is clearly written and easily understandable.

Subsection A of § 62.1-44.19:20 of the State Water Control Law requires that the Board shall adopt regulations for the purpose of establishing procedures for the certification of nonpoint source nutrient credits. Therefore, this is a new regulation developed to meet the statutory requirements and to provide for the advancement of the nutrient trading program. There are no

duplicate requirements for the regulation of the certification of nutrient credits under either state or federal laws.

Public Comment Received

Please summarize all comments received during the public comment period following the publication of the previous stage, and provide the agency response. Ensure to include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency or board. If no comment was received, enter a specific statement to that effect.

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 had the NOIRA (https://www.townhall.virginia.gov/L/ViewStage.cfm?stageid=6273) for this regulatory action published in the Virginia Register.
- DCR convened a RAP to assist with the development of this regulation in November 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. During this RAP process and development of the proposed regulation, there were a number of non-consensus issues that were highlighted in the agency background document for the proposed regulation, TH-02 (found at: https://www.townhall.virginia.gov/L/GetFile.cfm?File=103\3760\6556\AgencyStatement_DEQ_6556_v1.pdf).
- 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. As before, there were a number of non-consensus issues that were highlighted in the agency background document for the revised proposed regulation, TH-10 (found at: https://www.townhall.virginia.gov/L/GetFile.cfm?File=103\3760\8001\AgencyStatement_DEQ_8001_v4.pdf).
- The Board approved the revised proposed for public comment on July 19, 2017. The revised proposed regulation was published on April 15, 2019 and the comment period closed for this action on May 30, 2019. Twelve commenters submitted over 50 comments ranging from support for the regulation or aspects of the regulation to requests to either eliminate the regulation or reconvene the RAP for further deliberations. Additionally, two commenters submitted comments after the close of the comment period and those comments have not been included.

The following are summarized comments along with the Department's response to the comments. Please note, a table is attached to this agency background document which provides the individual comments and agency response. Additionally, changes made to the regulation are provided the *Detail of Changes Made Since the Previous Stage* section of this document.

1. Local Water Quality (9VAC25-900-91)

Comment Summary: During the revised proposed regulation's comment period, comments regarding the local water quality provisions (previously contained in Subsection C of Section 90) were received. The comments focused mainly on the exchange of a released credit and ranged

from a request to eliminate all provisions regarding the exchange of credits to requests for further restriction of the exchange of credits in areas with certain local water quality impairments.

Response: The Department has considered the comments. No requirements were changed based on comments received; however, clarifying format edits were made to the provisions for the exchange of credits. Additionally, in the agency background document (TH-10) for the revised proposed regulation, comment on adding chlorophyll-a to the list of impairments was requested. No comment was submitted regarding this addition and; therefore, chlorophyll-a has been added to the list of impairment types subject to the hierarchy established in Section 91 in the final regulation.

The Department believes that the treatment of local water quality in the regulations is consistent with the provisions in the State Water Control Law. In drafting the local water quality provisions, the Department 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, the requirements for exchanges of credits now contained in Section 91 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 provision of Section 91 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 quality 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.

The provisions in both the State Water Control Law and the Virginia Stormwater Management Program Regulation (9VAC25-870) have been considered during the development of the exchange of credit requirements of Section 91 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.9 and § 62.1-44.15:35.C.3 of the State Water Control Law.

2. Municipal Separate Storm Sewer System (MS4) Changes (9VAC25-900-10 and 100)
Comment Summary: In the revised proposed regulation, criteria for MS4s that may choose to generate credit were included in the regulation. During the public comment period, some commenters (localities) requested: (i) removal of the MS4 service area clarification in the definition of management area; and, (ii) revisions to the provisions for urban baseline applicable to nutrient banks developed by localities that own MS4 systems. The main concern was with provisions in the proposed regulation limiting the ability of MS4s to generate nutrient credits.

Response: The Department has considered the comments and agrees that some revision is necessary. The regulation includes the MS4 service area as part of the management area definition under Section 10. This change makes it clear that, prior to an MS4 generating nutrient credits within its service area, the entire MS4 service area must meet the baseline provisions of Section 100. This is a consistent application as the requirement to meet baseline within the management area is required for all nutrient credit-generating projects prior to the generation of credits.

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. The Department 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 so

that it is understood that the baseline 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 revised to require MS4 to have an accounting system for the exchange of any credits generated by the MS4 permittee. 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 Department has considered these comments and is deliberately moving away from the current practice of releasing 100% of credits with the posting of financial assurance. The Department 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 Department staff. The Department 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, the Department 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 the Department 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 Department 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 Department 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 Department 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 Department decides that additional public involvement would be useful for the review and processing of the certification application, the Department 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. In the final regulation, public notice requirements have been revised to provide the name and contact information for a Department staff person who the public may contact with questions regarding a project.

Detail of Changes Made Since the Previous Stage

Please list all changes made to the text since the previous stage was published in the Virginia Register of Regulations and the rationale for the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation.
**Please put an asterisk next to any substantive changes.*

The final regulation includes changes based on: (i) public comment; (ii) changes noted in the revised proposed regulation's agency background document (ABD); (iii) updates to documents that are incorporated by reference; and, (iv) clarification and grammatical edits.

As noted, the revised proposed regulation's agency background document included a request for comment on additional revisions being considered. These revisions were made and are:

- Addition of a requirement to include the name and contact information of a Department staff person for all public notifications.
- Addition of a requirement that the Department shall, if warranted, perform a site visit of the proposed nutrient credit-generating project for applications received.
- Inclusion of Chlorophyll-a to the list of impairment types for the local water quality requirements.
- Addition of a provision establishing survival for mixed-use plantings of evergreens and hardwoods, which include a minimum of 200 evergreens, after the first complete growing season.

Current section number	Revised Proposed Requirement	Final Regulation Requirement	Proposed change, intent, rationale, and likely impact of proposed requirements
Part I – Definitions			
10	Definitions	Definitions	Definitions for terms used in the regulation are provided in this section. The definitions explain meanings of relevant terms as these terms are used in the proposed regulation. Differences between the revised proposed and final regulation are: (i) the clarification of the management area definition for MS4s that choose to generate credits within their service area; (ii) the revision to the term MS4 service area to correct the definition to include Phase I MS4s; (iii) deleting references to Section 70 as that section is now reserved; and (iv) undeleting the definition of nutrient credit-generating entity.
Part II – General Information			

20	Authority and delegation of authority.	Authority and delegation of authority.	Section 20 provides the statutory authority for this regulation and the delegation of authority for implementation of the regulation and its requirements. There are no changes between the revised proposed and final regulation.
30	Purpose and applicability	Purpose and applicability	Section 30 explains the purpose of the regulations and when the regulatory requirements apply. There are no changes between the revised proposed and final regulation.
40	Relationship to other laws and regulations	Relationship to other laws and regulations	Section 40 explains the relationship of this regulation to other regulations; mainly, it provides a list of those that may use the credits as allowed under §62.1-44.19:21. The intent is to provide a more comprehensive view of the nutrient trading program of which the certification process is a component, and to provide the limitations of the regulation. There are no changes between the revised proposed and final regulation.
50	Appeal process	Appeal process	Section 50 details the appeal process pursuant to § 62.1-44.19:23. Difference between the revised proposed and final regulation is a change to use the term nutrient credit-generating "entity" instead of project in order to comport with the term used in the statute.
60	Limitations, liability, and prohibitions	Limitations, liability, and prohibitions	Section 60 section explains the limitations and the prohibitions for nutrient credit certification. There are no changes between the revised proposed and final regulation.
70	Documents and internet resources	Reserved	Section 70 was deleted in the final regulation and the documents listed in this section have been moved to the documents incorporated by reference section of the chapter.
Part III - Administrative and Technical Criteria			
80	Procedure for application for certification of nutrient credits	Procedure for application for certification of nutrient credits	Section 80 lists the application requirements and processing for certification of nutrient credits. Differences between the revised proposed and final regulation are: (i) clarifying/grammatical changes; (ii) the addition of a requirement to include the Department staff contact information for all public notices; (iii) the revision of language to require the Department shall, if warranted, perform a site visit of the proposed nutrient credit-generating project; and, (iv) revised the public notification requirements to include the name of the nutrient credit-generating entity instead of the applicant in order to comport with the public notification requirement in the statute.
90	Nutrient credit release and registration	Nutrient credit release and registration	Section 90 provides the criteria for the retirement of credits, the release schedule for credits, and registration. Additionally, the provisions for exchange of credits and to insure local water quality is not contravened are contained in this section. Differences between the revised proposed and final regulation is the revision of the phased release criteria for land conversion projects. Additionally, the requirements for the exchange of credits in this section were moved to a new section, Section 91.
91		Exchange of Credits	Section 91 provides criteria for the exchange of nutrient credits and includes protections for credit exchanges in areas with local water quality requirements. This is a new section in the final regulation. The revised proposed included requirements for the exchange of credits and local water quality protections under subsection 90.C. These provisions have been moved to this new section. Please note, the requirements were not changed but clarifying edits were made and the requirements were reformatted into the new section.
100	Establishing baseline	Establishing baseline	Section 100 details the requirements necessary to establish baseline within the management area. Differences between the revised proposed and final regulation are: (i) clarifying/grammatical changes; (ii) updates references to the latest

			specification number and (iii) clarifying baseline requirements for MS4 localities generating credits within their service area.
110	Credit calculation procedures	Credit calculation procedures	Section 110 provides the parameters for calculating the number of nutrient credits a proposed nutrient credit-generating entity will produce. The parameters are specific to the type of practices implemented such as agricultural, urban, etc. There are no changes between the revised proposed and final regulation.
120	Implementation plan	Implementation plan	Section 120 provides requirements for the Implementation Plan which details how the nutrient credit-generating entity will generate credits for the term of the credits. Differences between the revised proposed and final regulation are (i) clarifying/grammatical changes and (ii) the addition of survival establishment timeframe for mixed specie planting land conversion projects.
130	Signature requirements	Signature requirements	Section 130 provides the criteria for who should sign the application for nutrient credit certification. There are no changes between the revised proposed and final regulation
Part IV – Compliance and Enforcement			
140	Inspections and information to be furnished	Inspections and information to be furnished	Section 140 provides the requirements under which the nutrient credit-generating entity shall be subject to inspections by the Department. There are no changes between the revised proposed and final regulation.
150	Recordkeeping and reporting	Recordkeeping and reporting	Section 150 explains the requirements for recordkeeping and what information shall be reported to the Department. There are no changes between the revised proposed and final regulation.
160	Enforcement and penalties	Enforcement and penalties	Section 160 states that all applicable procedures under State Water Control Law may be used to enforce the regulation. There are no changes between the revised proposed and final regulation.
170	Suspension of credit exchange	Suspension of credit exchange	Section 170 provides the causes for suspension of the ability to exchange credits on the registry and the process for such suspension. There are no changes between the revised proposed and final regulation.
180	Nutrient credit certification transfer, modification, revocation and reissuance, expiration and termination	Nutrient credit certification transfer, modification, revocation and reissuance, expiration and termination	Section 180 allows for the nutrient credit certification to 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 causes for modification, revocation and recertification, or termination by the Department. Some members of the RAP expressed concern that these provisions caused uncertainty and could deter investment in nonpoint nutrient trading banks. There are no changes between the revised proposed and final regulation.
Part V – Fees			
190	Purpose and applicability of fees	Purpose and applicability of fees	Section 190 provides the basis for the fees. There are no changes between the revised proposed and final regulation.
200	Determination of application fee amount	Determination of application fee amount	Section 200 details how to determine the appropriate fee amount to be submitted. There are no changes between the revised proposed and final regulation.
210	Payment of application fees	Payment of application fees	Section 210 provides instructions on how to pay the fee. There are no changes between the revised proposed and final regulation.
220	Application fee schedule	Application fee schedule	Section 220 is a table that lists the base fee and the supplementary fee amounts for the various types of credits. There are no changes between the revised proposed and final regulation.
Part VI – Financial Assurance			

230	Financial assurance applicability	Financial assurance applicability	Section 230 provides the information on what types of nutrient credit-generating projects are required to have financial assurance in accordance with Part VI. There are no changes between the revised proposed and final regulation.
240	Suspension of nutrient credit exchange	Suspension of nutrient credit exchange	Section 240 details that in cases where the financial assurance is not maintained in accordance with this part, the Department may take appropriate enforcement action. There are no changes between the revised proposed and final regulation.
250	Cost estimates for perpetual and term credit nutrient credit-generating projects	Cost estimates for perpetual and term credit nutrient credit-generating projects	Section 250 provides the criteria to be used in development of the cost estimate for projects. There are no changes between the revised proposed and final regulation.
260	Financial assurance requirements for term credits	Financial assurance requirements for term credits	Section 260 provides the requirement for using financial assurance mechanisms for those structural BMPs that generate term credits. There are no changes between the revised proposed and final regulation.
270	Financial assurance requirements for perpetual credits	Financial assurance requirements for perpetual credits	Section 270 provides the criteria for using financial assurance mechanism for those that generate perpetual credits. There are no changes between the revised proposed and final regulation.
280	Allowable financial mechanisms	Allowable financial mechanisms	Section 280 provides that more than one type of mechanism may be used to meet financial assurance obligations. There are no changes between the revised proposed and final regulation.
290	Trust	Trust	Section 290 provides the requirements for using a "Trust" as a financial assurance mechanism. There are no changes between the revised proposed and final regulation.
300	Surety bond	Surety bond	Section 300 provides the requirements for using a "Surety Bond" as a financial assurance mechanism. There are no changes between the revised proposed and final regulation.
310	Letter of credit	Letter of credit	Section 310 provides the requirements for using a "Letter of Credit" as a financial assurance mechanism. There are no changes between the revised proposed and final regulation.
320	Certificate of deposit	Certificate of deposit	Section 320 provides the requirements for using a "Certificate of Deposit" as a financial assurance mechanism. There are no changes between the revised proposed and final regulation.
330	Insurance	Insurance	Section 330 provides the requirements for using "Insurance" to provide financial assurance. There are no changes between the revised proposed and final regulation.
340	Incapacity of financial providers or owners	Incapacity of financial providers or owners	Section 340 provides assurances that the Department will be notified of any event, such as bankruptcy, that may cause the financial mechanism to be invalid. There are no changes between the revised proposed and final regulation.
350	Wording of the financial assurance mechanism	Wording of the financial assurance mechanism	Provides the specific language necessary for the different types of financial mechanisms that may be used. There are no changes between the revised proposed and final regulation..

Documents Incorporated by Reference			
DIBR	Documented Incorporated by Reference	Documented Incorporated by Reference	Provides the citations to documents that are used by the regulation to provide standards. Differences between the revised proposed and final regulation are (i) revised to the latest versions of the documents listed and (ii) the addition of three documents previously listed in Section 70.

Detail of All Changes in this Regulatory Action

*Please list all changes proposed in this action and the rationale for the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. *Please put an asterisk next to any substantive changes.*

This is a new regulation and, as such, the regulatory requirements will provide new criteria for those persons that wish to generate and certify nutrient credits for exchange. The requirements of this regulation will apply to those persons who choose to generate nonpoint source nutrient credits for exchange and include substantive provisions that must be met in order to certify nonpoint source nutrient credits. Additionally, existing nutrient credit generating projects or banks and credit purchasing entities are potentially affected by new regulatory provisions as well. Existing banks are not subject to the nutrient credit certification requirements but are subject to all other provisions of the regulation including registration, compliance, inspection and enforcement.

New Chapter section Number	New Requirements	Other regulations and law that apply.	Intent and likely impact of new requirements.
Part I Definitions			
10	Definitions	SWCL §62.1-44.19:20	Definitions for terms used in the regulation are provided in this section. The definitions explain meanings of relevant terms as these terms are used in the proposed regulation.
Part II General Information			
20	Authority and delegation of authority.	SWCL §62.1-44.19:20 SWCL §62.1-44.15(10)	Section 20 provides the statutory authority for this regulation and the delegation of authority for implementation of the regulation and its requirements.
30	Purpose and applicability	SWCL §62.1-44.19:20	Section 30 explains the purpose of the regulations and when the regulatory requirements apply.
40	Relationship to other laws and regulations	SWCL §62.1-44.19:20	Section 40 explains the relationship of this regulation to other regulations; mainly, it provides a list of those that may use the credits as allowed under § 62.1-44.19:21. The intent is to provide a more comprehensive view of the nutrient trading program of which the certification process is a component, and to provide the limitations of the regulation.
50	Appeal process	SWCL §62.1-44.19:23	Section 50 details the appeal process pursuant to § 62.1-44.19:23.
60	Limitations, liability, and prohibitions	SWCL § 62.1-44.19:20	Section 60 section explains the limitations and the prohibitions for nutrient credit certification.
70	Reserved		Section 70 is reserved. The documents listed in this section have been moved the Documents Incorporated by Reference section of the chapter.
Part III Administrative and Technical Criteria			

New Chapter section Number	New Requirements	Other regulations and law that apply.	Intent and likely impact of new requirements.
80	Procedure for application for certification of nutrient credits	SWCL § 62.1-44.19:20	Section 80 lists the application requirements and processing for certification of nutrient credits.
90	Nutrient credit release and registration	SWCL § 62.1-44.19:20	Section 90 provides the criteria for the retirement of credits, the release schedule for credits, and registration.
91	Exchange of nutrient credits	SWCL §§ 62.1-44.19:20, § 62.1-44.15:35, 62.1-44.19:15, and or 62.1-44.19:21	Section 91 includes the provisions for exchange of credits and to insure local water quality is not contravened when these exchanges occur.
100	Establishing baseline	SWCL § 62.1-44.19:20	Section 100 details the requirements necessary to establish baseline within the management area.
110	Credit calculation procedures	SWCL § 62.1-44.19:20	Section 110 provides the parameters for calculating the number of nutrient credits a proposed nutrient credit-generating entity will produce. The parameters are specific to the type of practices implemented such as agricultural, urban, etc.
120	Implementation plan	SWCL § 62.1-44.19:20	Section 120 provides requirements for the Implementation Plan which details how the nutrient credit-generating entity will generate credits for the term of the credits.
130	Signature requirements		Section 130 provides the criteria for who should sign the application for nutrient credit certification. The difference between the proposed and revised proposed regulation is the addition of the certification statement language for signatories. This was necessary to provide enforceability of the certification.
Part IV Compliance and Enforcement			
140	Inspections and information to be furnished	SWCL § 62.1-44.19:20	Section 140 provides the requirements under which the nutrient credit-generating entity shall be subject to inspections by the Department.
150	Recordkeeping and reporting		Section 150 explains the requirements for recordkeeping and what information shall be reported to the Department.
160	Enforcement and penalties	SWCL § 62.1-44.19:20	Section 160 states that all applicable procedures under State Water Control Law may be used to enforce the regulation.
170	Suspension of credit exchange		Section 170 provides the causes for suspension of the ability to exchange credits on the registry and the process for such suspension.
180	Nutrient credit certification transfer, modification, revocation and reissuance, expiration and termination		Section 180 allows for the nutrient credit certification to 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 causes for modification, revocation and recertification, or termination by the Department.
Part V Fees			
190	Purpose and applicability of fees	SWCL § 62.1-44.19:20	Section 190 provides the basis for the fees.

New Chapter section Number	New Requirements	Other regulations and law that apply.	Intent and likely impact of new requirements.
200	Determination of application fee amount		Section 200 details how to determine the appropriate fee amount to be submitted.
210	Payment of application fees		Section 210 provides instructions on how to pay the fee.
220	Application fee schedule		Section 220 is a table that lists the base fee and the supplementary fee amounts for the various types of credits.
Part VI Financial Assurance			
230	Financial assurance applicability	SWCL § 62.1-44.19:20	Section 230 provides the information on what types of nutrient credit-generating projects are required to have financial assurance in accordance with Part VI.
240	Suspension of nutrient credit exchange		Section 240 details that in cases where the financial assurance is not maintained in accordance with this part, the Department may take appropriate enforcement action.
250	Cost estimates for perpetual and term credit nutrient credit-generating projects		Section 250 provides the criteria to be used in development of the cost estimate for projects.
260	Financial assurance requirements for term credits		Section 260 provides the requirement for using financial assurance mechanisms for those structural BMPs that generate term credits.
270	Financial assurance requirements for perpetual credits		Section 270 provides the criteria for using financial assurance mechanism for those that generate perpetual credits.
280	Allowable financial mechanisms		Section 280 provides that more than one type of mechanism may be used to meet financial assurance obligations.
290	Trust		Section 290 provides the requirements for using a "Trust" as a financial assurance mechanism.
300	Surety bond		Section 300 provides the requirements for using a "Surety Bond" as a financial assurance mechanism.
310	Letter of credit		Section 310 provides the requirements for using a "Letter of Credit" as a financial assurance mechanism.
320	Certificate of deposit		Section 320 provides the requirements for using a "Certificate of Deposit" as a financial assurance mechanism.
330	Insurance		Section 330 provides the requirements for using "Insurance" to provide financial assurance.
340	Incapacity of financial providers or owners		Section 340 provides assurances that the Department will be notified of any event, such as bankruptcy, that may cause the financial mechanism to be invalid.
350	Wording of the financial assurance mechanism		Section 350 provides the specific language to be used for the different types of mechanisms that may be used to provide financial assurance.

New Chapter section Number	New Requirements	Other regulations and law that apply.	Intent and likely impact of new requirements.
Documents Incorporated by Reference			
DIBR	Documents Incorporated by Reference		Provides the citations for documents that are used in this chapter to provide standards for nutrient credit-generating projects and the certification of nonpoint nutrient credits.

Family Impact

In accordance with § 2.2-606 of the Code of Virginia, please assess the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

There is no anticipated adverse impact on the institution of the family and family stability; however, as these projects help with the improvement in overall water quality, that improvement should have a positive impact on the environment which may indirectly impact families.

Attachment

Response to Comments

Please note, the attached response to comments includes references regarding the exchange of nutrient credits and local water quality requirements in either Subsections 90.C or 90.D. However, as part of the Board's final action on these regulation, these exchange of credit provisions have been moved to a new Section 91 in the final regulation.

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 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.~~	**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.
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	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	**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

		consideration and provides necessary protections to ensure exchanges comply with and do not contravene local water quality requirements".	unless exchange of credits are restricted to upstream of where the discharge reaches impaired waters".	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 credits where it is deemed necessary to protect local water quality.	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.
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	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	**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

		not found in the 2014 proposed rule. It 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. 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. 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. <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 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	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.~~ ~~"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	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 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.

		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 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 should be revised to ensure that it covers Phase I MS4s.	**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 by the MS4 permittee and will also clarify this point in guidance.

		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 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.	"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.~~	
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	VAMSA requests that the following language be reinserted into the list of application requirements in 9 VAC 25-900-80.A: A completed local government ordinance approval certification form that verifies that the	**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

		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 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.	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.	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.
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 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	**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 followed-up and verified the project continues to generate credits after the first growing season. Most planting failures occur within the first growing season.

			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.	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 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 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.	VMBA suggests that the management area definition be amended as follows to address these issues: "Management area" means <u>an area no larger than</u> all contiguous parcels deeded to the same landowner that includes the site of the nutrient credit-generating project within its boundaries. <u>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-generating project, the management area is only that area generating credits and subject to a site protection instrument.</u> 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.	**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 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.
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,	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

		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 credit release based on the wetland and stream program is inappropriate.		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 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 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 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	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 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	**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 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."

		than "dissolved oxygen, benthics or nutrients" and (iv) protect current private investments in creating nutrient reductions.	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, 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	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

			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; 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.	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. 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 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 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	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

		escrow places no more burden on the department than other mechanisms and is a mechanism with which both the department and the regulated community are familiar.		wetlands program, the IRT (particularly the Corps) is moving away from escrow accounts for long-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 stream stability is demonstrated in a shorter period than suggested in the proposed regulations.	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 functioning following significant storm events.	**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 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),		**Noted.** The DEQ appreciates the comment.

		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.		
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 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 limits, and thus discourage credit use and undermine the program.	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 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.
PS-3	Peggy Sanner, CBF	**Evaluation of Innovative Practices.** With the 2012 Trading Act legislation, the General Assembly tasked DEQ with developing a	Recommendations: To better facilitate DEQ's ability to secure helpful scientific, technical and	**No change.**

		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	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.	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 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	Recommendation: The quoted provision should be amended as follows: "The hierarchy of this subdivision shall not apply should it 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."	**No change.** The language in question does not prioritize the availability of credits for permittees' use over the need to protect local quality but 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

		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.		
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 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.	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 term credits protected by appropriate financial assurance protections.	**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 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 nonpoint source nutrient credits as a complement to the existing point source nutrient credit trading program.	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." • 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	**Noted.** The DEQ appreciates the comment in support.

			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., 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.	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 other changes that were not part of the approved Nutrient Reduction Implementation Plan.	**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.
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	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).

		how the applicable project area is defined under the existing nutrient credit offset program.		
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.
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 Roanoke Stormwater Utility	In this section, there are three scenarios where the exchange of nutrient credits are further conditioned. It is notable that these conditions 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.;	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.	**No change.** The provisions of this regulation are limited to the generation and use of nutrient credits. 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.

		2. This uncontrolled additional non-nutrient loading creates a regulatory accounting problem for local TMDLs. As land cover changes over time 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 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	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 in meeting their local TMDL reduction goals in a timely and efficient manner.	**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 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

		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) 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.; (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 regulation	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.

		- 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.
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	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.

		Authorities the agency should contact. Our staff has first-hand knowledge of one locality where such an issue could develop.		
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 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.	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 develop. It would also allow this regulation to be consistent with existing agency public engagement policies and programs.	**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 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.
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.