A REPORT TO
THE CHAIR OF THE HOUSE COMMITTEE ON AGRICULTURE, CHESAPEAKE AND NATURAL RESOURCES

REVIEW OF THE PRACTICE OF RETIRING AGRICULTURAL LAND FOR THE GENERATION OF NUTRIENT CREDITS

DEPARTMENT OF ENVIRONMENTAL QUALITY
December 2022

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Executive Summary

During the 2022 General Assembly Session, HB 1283 was left in the House Committee on Agriculture, Chesapeake and Natural Resources. In a letter after the conclusion of the General Assembly session, Chairman R. Lee Ware asked the Department of Environmental Quality (DEQ) to examine the issues raised by HB 1283, specifically an amendment in the nature of a substitute that had been offered for consideration in the House Committee on Agriculture, Chesapeake and Natural Resources Subcommittee Chesapeake (Appendix A and B).

Chairman Ware's letter noted that DEQ had convened a workgroup in 2021 to examine issues similar to those raised by HB 1283. That workgroup produced a report in December 2021 (Appendix C). The letter asked DEQ to convene a workgroup to examine the issues raised in HB 1283 and to continue to examine issues that were discussed during the 2021 workgroup.

Chairman Ware also asked DEQ to convene a workgroup to examine the issues that were raised in two other bills related to stream and wetland mitigation credits that were left in the House Committee on Agriculture, Chesapeake and Natural Resources (HBs 276 and 479). Because of the overlap in membership, DEQ convened one workgroup to review all three bills. This report only addresses the nonpoint source nutrient trading program and issues related to HB 1283; the workgroup's examination of the issues raised in HBs 276 and 479 will be reported under a separate cover.

The workgroup met three times in 2022 to discuss the issues raised by HB 1283 and identified by the previous workgroup. Following an introduction to the nutrient trading program, the workgroup focused its conversations on four specific questions:

1. To what extent are nutrients being generated through the conversion of important, prime, or unique farmland?

2. What are the potential impacts of restricting the generation of credits on any parcel of important, prime, or unique farmland acquired for generating credit?

3. What would the effect be of requiring credit purchases from the same HUC, if available, before looking at adjacent HUCs?

4. Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority needed to reduce the loss of important, prime, or unique farmland?

Details of those discussion are included in the report below.

Introduction

Nonpoint source nutrient credits are nutrient reductions that are certified by DEQ pursuant to the provisions of the Code of Virginia[1] and expressed in pounds of phosphorous, nitrogen, or sediment.[2] The nutrient trading program is voluntary and market driven. The decision to participate in the program as a nutrient credit generator is a private landowner's decision. Nonpoint source nutrient credits may be generated through a variety of practices, including but not limited to land conversion.[3] Land conversion is the practice of permanently converting land from a use that generates a certain amount of nutrient runoff, such as cropland, to a land use that generates a lower amount of nutrient runoff, such as forestland.[4] The amount of nonpoint source nutrient credits generated by land conversion depends on the pre- and post- conversion use of the land and is established in regulation and guidance. The pre-conversion land use is established by a 2005 baseline in the Chesapeake Bay Watershed [5] and a 2009 baseline in other areas of Virginia.[6]

The Virginia Stormwater Management Act (VSMA) allows nonpoint source nutrient credits to be used for compliance purposes with the Commonwealth's post-construction water quality requirements.[7] Currently, the primary driver of demand for nonpoint source nutrient credits is from entities engaged in development or redevelopment that use nonpoint source nutrient credits for compliance with the VSMA's post-construction water quality requirements. The VSMA specifies that nonpoint source nutrient credits used for compliance with the Act's post-construction water quality requirements must be generated in the same or adjacent eight-digit hydrologic unit code (HUC), but within the same river basin, as where the development or redevelopment activity is taking place.[8] As a result, nonpoint source nutrient bankers frequently propose and seek to establish nonpoint source nutrient banks in HUCs with a large amount of construction activity or in HUCs adjacent to those with a large amount of construction activity.

The VSMA's water quality requirements use phosphorus as the keystone pollutant; therefore, phosphorous is the most relevant metric to use to judge the size of the nonpoint source nutrient credit market. To date DEQ has approved 271 nonpoint source nutrient banks, which have generated a total of 17,313 pounds of phosphorus credits. Of those projects, DEQ has approved 255 nutrient banks that have generated 14,551 pounds of phosphorous credits through the conversion of 16,463 acres of agricultural land. These numbers include approved nutrient banks where hay, pasture, crop, or fallow fields have been converted or have been proposed to be converted to forest. Conversions of golf courses, urban best management practices, and stream restoration projects are not included in those totals. Additionally, not all approved plans have been implemented at this time. In other words, not all of these land conversion practices have actually taken place, so the actual number of acres where land conversion has occurred to generate nonpoint source nutrient credits is less than what has been approved.

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[1] *See* Va. Code § 62.1-44.19:13.
[2] *See id.*
[3] *See* 9VAC25-900.
[4] *See id.*
[5] *See* Va. Code § 62.1-44.19:20.
[6] *See* 9VAC25-900.
[7] *See* Va. Code § 62.1-44.15:35 B.
[8] *See* Va. Code § 62.1-44.15:35 F.

Because nonpoint source nutrient credits are used to offset permanent changes in land use due to development or redevelopment, the activities that generate nonpoint source nutrient credits for such compliance purposes must also be permanent. The Nutrient Trading Program's regulations impose several requirements on nonpoint source nutrient banks that generate credits through land conversion. For example, the regulations require that woody invasive species must be controlled, mechanically or chemically, if they impact more than five percent of the project's acreage. The existing regulations also require that a qualified professional must develop a land management plan that addresses invasive species control, forest management, and statements that timber harvesting and thinning will adhere to best management practices set forth by the Virginia Department of Forestry's Water Quality Guide and any other applicable requirements. Additionally, the existing regulations require 10 years of monitoring of reforestation projects and every property has a Declaration of Restrictions recorded that outlines the land management requirements and timber harvesting guidelines apply to the nutrient bank area even if ownership changes.[9]

Workgroup Membership

Consistent with the request in the Chairman Ware's letter to DEQ, the following individuals were asked to participate on the workgroup. Due to anticipated overlap in workgroup membership, one workgroup was formed by DEQ to examine the issues raised by HBs 276, 479, and 1283. The review of the issues raised in HBs 276 and 479 is described in a separate report. The following workgroup members were invited to attend:

Jennifer Perkins, Virginia Department of Agriculture and Consumer Services
Terry Lasher, Virginia Department of Forestry
Kyle Shreve, Virginia Agribusiness Council
Martha Moore, Virginia Farm Bureau
Adrienne Kotula, Chesapeake Bay Commission
Lonnie Johnson, Virginia Cooperative Extension
Chris Swanson, Virginia Department of Transportation
Andrew Clark, Home Builders Association of Virginia
Phil Abraham, Virginia Association for Commercial Real Estate
Chris Boies, Clarke County
Justin Mackay-Smith
Shannon Varner, Troutman Pepper representing the Virginia Environmental Restoration Association
Brian Wagner, Resource Environmental Solutions
Casey Jensen, EcoCap
Samuel Markwith, Tidewater Soil and Water Conservation District
T.J. Mascia, Davey Resource Group
Serena McClain, American Rivers
Justin Curtis, AquaLaw
Peggy Sanner, Chesapeake Bay Foundation
Bobby Proutt, Clearwater Ventures

[9] *See* 9VAC25-900.

Dave Jordan, Commonwealth Mitigation
Jennifer Van Houten, Davey Resource Group
Brent Fultz, Earth Source Solutions
Evan Ocheltree, Falling Springs LLC
Bill Street, James River Association
George Bryant, Koontz Bryant
Kelby Morgan, Liesfeld Construction
Chris Miller, Piedmont Environmental Council
Sara Aman, Potomac Conservancy
Fritz Schneider, Potomac Riverkeeper Network
Jeff Waldon, Rapidan Institute & Center for Natural Capital
Kathy Hoverman, Resource Environmental Solutions
Jeff Corbin, Restoration Systems
Nikki Rovner, The Nature Conservancy
Jeanne Richardson, US Army Corps of Engineers
Jennifer Stanhope, US Fish and Wildlife Service
Howard Epstein, University of Virginia
James Hutzler, Virginia Association of Counties
Greg Garman, Virginia Commonwealth University
Rene Hypes, Virginia Department of Conservation and Recreation
Mark Killgore, Virginia Department of Conservation and Recreation
Charles Wilson, Virginia Department of Conservation and Recreation
Robert Condrey, Virginia Department of Transportation
Amy Martin, Virginia Department of Wildlife Resources
Alan Weaver, Virginia Department of Wildlife Resources
Timothy Owen, Virginia Department of Wildlife Resources
Kirk Havens, Virginia Institute of Marine Science
Randy Owen, Virginia Marine Resource Commission
John Foote, Walsh Colucci Lobeley & Walsh
Mike Kelly, Mitigation Banker
Steven Barrs, Mitigation Banker

Workgroup Discussion

The workgroup met twice at DEQ's Central Office in Richmond on July 7, 2022, and August 8, 2022, and also at DEQ's Piedmont Regional Office in Glen Allen, Virginia on August 30, 2022. Following introductions, DEQ staff gave presentations (Appendix D) to introduce the workgroup's directives and in later meetings to present information requested by the workgroup. Afterwards, the workgroup engaged in discussion. For a full recounting of the workgroup's discussions at each meeting, please refer to the Meeting Minutes in Appendix E. A summary of the discussion and recommendations is provided below, which reflects the various positions of the workgroup members. DEQ notes that unless expressly stated in this report, consensus was not tested for or achieved for the discussion points or suggested recommendations described below.

1. **To what extent are nutrients credits being generated through the conversion of important, prime, or unique farmland?**

To examine the extent to which nonpoint source nutrient credits are being generated through the conversion of important, prime, or unique farmland, DEQ presented information to the workgroup on the number of nutrient banks and the amount of land conversion by county (Figure 1). At the time of the presentation to the workgroup, it was estimated that a total of about 16,463 acres of agricultural land had been converted to generate nonpoint source nutrient credits at 255 nutrient banks (conversion of golf courses and other nutrient credit generating projects are excluded from this count). The five counties with the highest amount of conversion of agricultural land in acres are Buckingham (n=11, 1,025 acres), Clarke (n=8, 1,086 acres), Fauquier (n=14, 1,652 acres), Prince Edward (n=16, 807 acres), and Westmoreland (n=18, 1,065 acres). For a list of all counties, see Table 1 below. During the discussions workgroup members focused on "prime farmland" as the most relevant and well-defined category of land use of concern and did not address "important" or "unique" farmland directly.

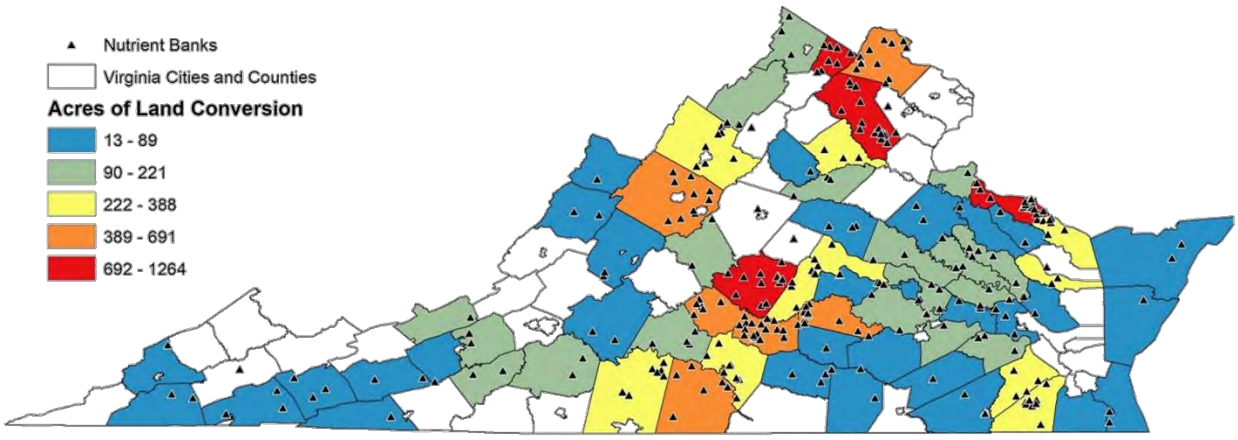

Figure 1. Map showing the acres of land converted for the nutrient trading program by county.

Data was also presented to the workgroup on the impact of nutrient banks on prime farmland. Using data from the Virginia Natural Heritage Data Explorer and the Virginia Agricultural Model (2015)[10], it was estimated that approximately 115 nutrient banks out of 271 land-conversion nutrient banks intersected with the prime farmland data layer (Figure 2). The workgroup subsequently pointed out that this model likely overrepresents prime farmland. It was also noted that by representing nutrient banks as points, instead of outlines of the entire bank area, there was not enough information to assess how much land conversion at each nutrient bank was actually conducted on prime farmland since many farms enrolled in the program may contain a mixture of prime and sub-prime farmland. However, despite this coarse analysis it was clear that at least some prime farmland had been converted for this program, even if the exact acreage cannot be accurately estimated at this time. The concept of setting a threshold for a percentage of prime farmland that could be converted on a property was also approached and discussed by the workgroup, but no consensus was reached.

The workgroup broadly agreed that the extent to which nonpoint source nutrient credits are being generated through the conversion of prime farmland cannot be accurately answered at this time

[10] https://www.dcr.virginia.gov/natural-heritage/vaconvisagric

due to a lack of accurate mapping of nutrient banks and prime farmland boundaries. It was noted that HB 894[11] directed the Virginia Cooperative Extension to work with partners to create a map or repository of farmland with prime soils in the Commonwealth, with an initial report expected by December 1, 2022. In order to make sure the new map will be relevant to the questions looked at by this workgroup, members reached consensus that any new legislation or regulations concerning the nutrient trading program should use the same definition for prime farmland. Consensus, defined as all members fully or partially supporting the statement with none opposing it, was reached on the following statement: *There should be a consistent definition of prime agricultural soils across programs for the purposes of mapping. Specifically "prime agricultural soils" should be defined as it is in HB 206: "soils recognized as prime farmland by the U.S. Department of Agriculture…" (which refers to Class I and II soils).*[12]
(Fully Support – 16, Partially Support – 9, Oppose – 0)

Table 1: Nutrient Banks Created by Converting Agricultural Land

County	# Banks	Acres
Accomack	2	45
Amelia	11	701
Appomattox	8	699
Augusta	9	458
Bath	1	28
Bedford	1	64
Brunswick	1	21
Buckingham	11	1025
Campbell	4	185
Caroline	2	137
Charles City	1	25
Charlotte	8	408
Chesapeake	1	59
Chesterfield	1	160
Clarke	8	1086
Culpeper	3	256
Cumberland	8	419
Dinwiddie	1	23
Essex	1	35
Fauquier	14	1652
Floyd	2	152
Franklin	2	106
Franklin City	1	81
Frederick	1	118
Giles	1	163
Gloucester	1	50
Goochland	3	266
Grayson	1	19
Halifax	7	483

County	# Banks	Acres
King William	3	164
Loudoun	9	633
Louisa	1	89
Lunenburg	3	70
Madison	1	26
Middlesex	1	288
Montgomery	2	114
Nelson	3	221
New Kent	3	206
Northampton	1	28
Northumberland	5	267
Nottoway	1	18
Orange	2	171
Page	1	43
Pittsylvania	7	415
Powhatan	2	79
Prince Edward	16	807
Prince George	1	137
Prince William	1	83
Pulaski	1	76
Richmond	2	48
Rockbridge	2	69
Rockingham	6	375
Scott	2	47
Shenandoah	3	152
Smyth	2	57
Southampton	1	43
Suffolk	8	329
Surry	3	170

[11] 2022 Va. Acts Ch. 488 (HB 894).
[12] 2022 Va. Acts Ch. 688 (HB 206).

Hanover	2	123
Henrico	5	189
Highland	1	40
Isle of Wight	4	282
James City	1	16
King & Queen	6	216
King George	1	117

Sussex	1	21
Tazwell	1	48
Virginia Beach	1	27
Washington	3	79
Westmoreland	18	1065
Wise	1	13
Wythe	2	77

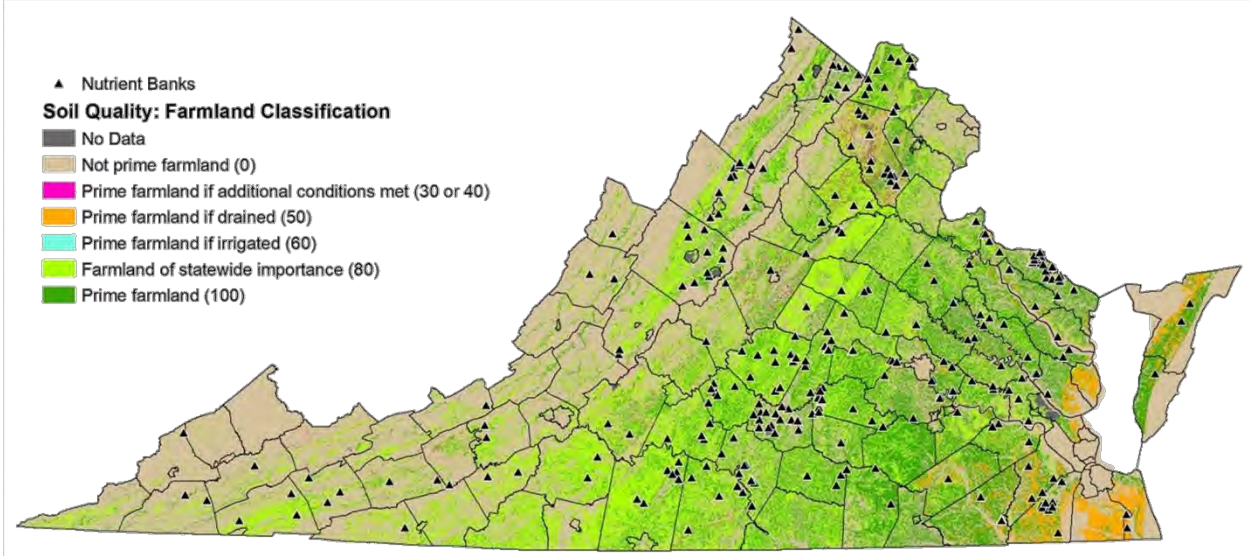

Figure 2. A map of nutrient banks and farmland classifications based on the Virginia Natural Heritage Program model from 2015.

Additionally, workgroup members agreed that in addressing the loss of prime farmland due to the nutrient trading program the primary concern is with permanent land conversion projects and not incidental land conversions associated with other credit-generating projects (e.g., stream restoration and shoreline stabilization). The workgroup reached consensus, defined as all members fully or partially supporting the statement with none opposing it, on the following statement: *Any legislation addressing land conversion for nutrient credit generation should be limited to agricultural to forest land conversion. Forest land conversion does not include stream restoration projects and associated buffers. (Fully Support – 14, Partially Support – 6, Oppose – 0)*

Representatives of the nutrient banking industry commented that even an accurate estimate of past land conversion of prime farmland will not predict future land conversions, in part because the nutrient credit generation rates (the credits that one can generate per acre by converting agricultural lands to forest) were reduced significantly in 2020 based on updated modeling data.[13] As a result of these changes in credit generation rates, generating nutrient credits from land conversion is now uneconomical in much of the state. Overall, the credit generation rate changes have shifted nutrient bankers toward stream restoration and other practices to generate nutrient credits. Land conversions that may happen, where the rates still make it economically viable, will tend to be smaller and closer to development.

[13] GM20-21 Addendum to Trading Nutrient Reductions from Nonpoint Source Best Management Practices in the Chesapeake Bay Watershed: Guidance for Agricultural Landowners and Your Potential Trading Partners.

Those representing agricultural communities and interests expressed concern that even with the lower credit generation rates, an increase in demand for nutrient credits could once again make land conversions profitable; therefore, protections are still necessary regardless of the current market and regulatory conditions.

Several workgroup members asked if there were ways to incentivize alternatives to land conversion, such as stream restoration. However, there is no provision for such prioritization in the Code of Virginia, as all credit estimations are based on the best available science.[14] Additionally, because of the market changes described above, there has already been a shift to alternative projects (Figure 3).

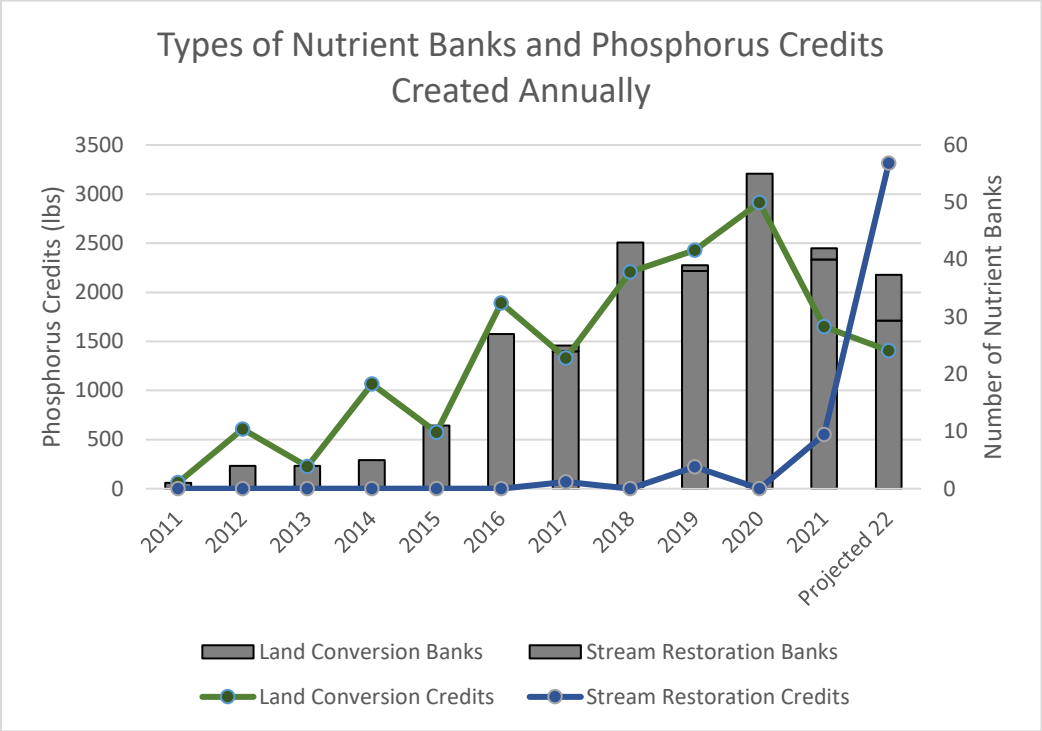

Figure 3. The primary axis shows the amount of phosphorus credits generated in pounds each calendar year through land conversion (green) and stream restoration (blue) projects. The secondary axis shows the number of new nutrient banks approved each year through each type of bank. Values for 2022 have been projected based on year-to-date information.

2. What are the potential impacts of restricting the generation of credits on any parcel of important, prime, or unique farmland acquired for generating credit?

There was wide agreement in the workgroup that the current information on prime farmland is insufficient to make policy recommendations that would impact the supply, location, and pricing of nutrient credits. Members of the development and nutrient banking community stated that prior to any legislation, prime farmland needs to be mapped and the potential outcomes discussed.

[14] *See* Va. Code § 62.1-44.19:20.B.2.h.

Additionally, DEQ does not collect data on the purchase history of land enrolled in the nutrient trading program, and therefore cannot directly answer questions about how much land conversion occurs on land specifically acquired for that purpose. Some workgroup members expressed programmatic concerns about DEQ staff judging a person's intent when they purchased the property. There were also concerns about treating landowners differently if they purchased land specifically for the program or have owned it for a longer time.

Anecdotally, workgroup members shared that they had observed prime farmland being acquired and converted nutrient banks specifically for the nutrient trading program in their localities. The banking community stated that it does not target productive farmland, and typically uses only the less productive and harder to farm portions of properties for land conversion. This allows the landowner to continue to use and generate revenue from the productive areas of the farm. Additionally, this group shared that land conversion has additional benefits to water quality as all of the contiguous land owned by the same landowner and not included in the land conversion area must meet "baseline" best practices, including having a soil conservation and nutrient management plans, cover cropping, 35-foot vegetated buffers along perennial streams, and livestock exclusion fencing.

Generally, the group agreed that limiting the conversion of prime farmland for any reason, including the exclusion of prime farmland acquired for that purpose, would likely preserve prime farmland but could also reduce the supply of credits and increase the price. The workgroup reached consensus on the following statement: *Restricting the conversion of prime agricultural soil lands to forest for the purpose of generating nutrient credits could: reduce supply and increase the price of nutrient credits, allow for the preservation of land with prime soils for non-silviculture agricultural use, and the impacts cannot be quantified until a prime agricultural soils map is created per HB 894. (Fully Support – 19, Partially Support – 2, Oppose – 0)*

3. What would the effect be of requiring credit purchases from the same HUC, if available, before looking at adjacent HUCs?

The workgroup also discussed the impacts of prioritizing all nonpoint source nutrient credit purchases to the same eight-digit HUC, if credits are available. Currently, a project seeking credits for water quality compliance can purchased from the same or adjacent eight-digit HUC within the same major river basin (Figure 4). The proposal in HB 1283 that was left in the House Agriculture, Chesapeake and Natural Resources Committee would have required that nutrient credit purchasers first look in the same eight-digit HUC before looking in the adjacent eight-digit HUCs. Under no circumstances may credits be purchased from outside the same major river basin.[15]

[15] *See* Va. Code § 62.1-44.15:35 F.

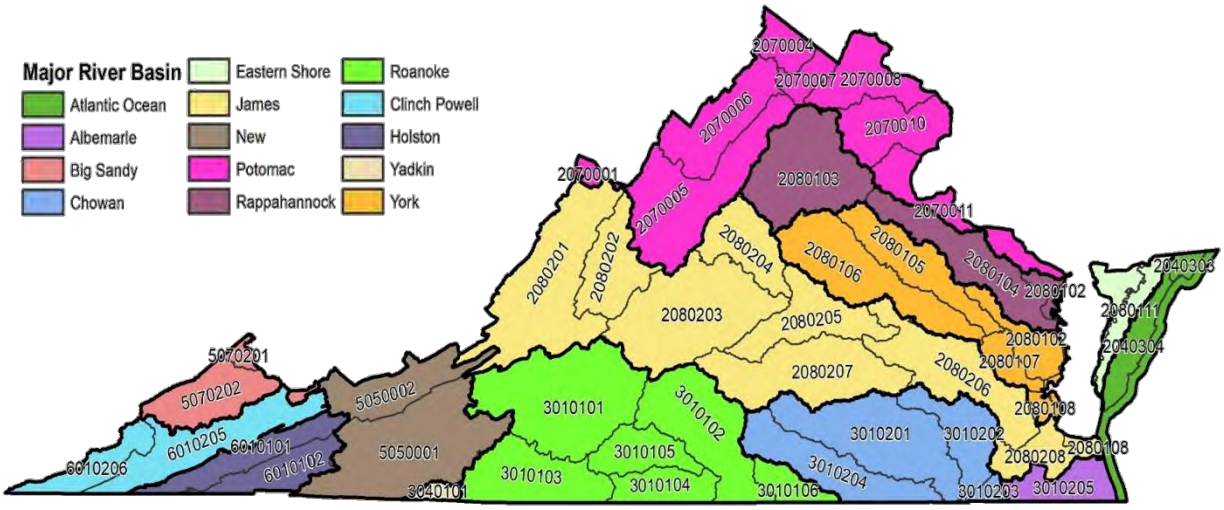

Figure 4. Map of 8-digit HUCs and major river basins in Virginia.

During the workgroup meetings, DEQ presented data on nonpoint source nutrient credit purchases made to meet the water quality requirements of the VSMA and reported as part of the General Virginia Pollutant Discharge Elimination System Permit for Discharges of Stormwater from Construction Activities (Construction General Permit or CGP) process. Since 2014, approximately 933 projects have purchased nonpoint source nutrient credits to meet their water quality requirements, totaling 2,366 pounds of phosphorus credits. Of these, approximately 30% of credits were purchased from the same eight-digit HUC that the land disturbing activity was located in. Conversely, nearly 70% of credits were purchased from adjacent eight-digit HUCs (Figure 5).

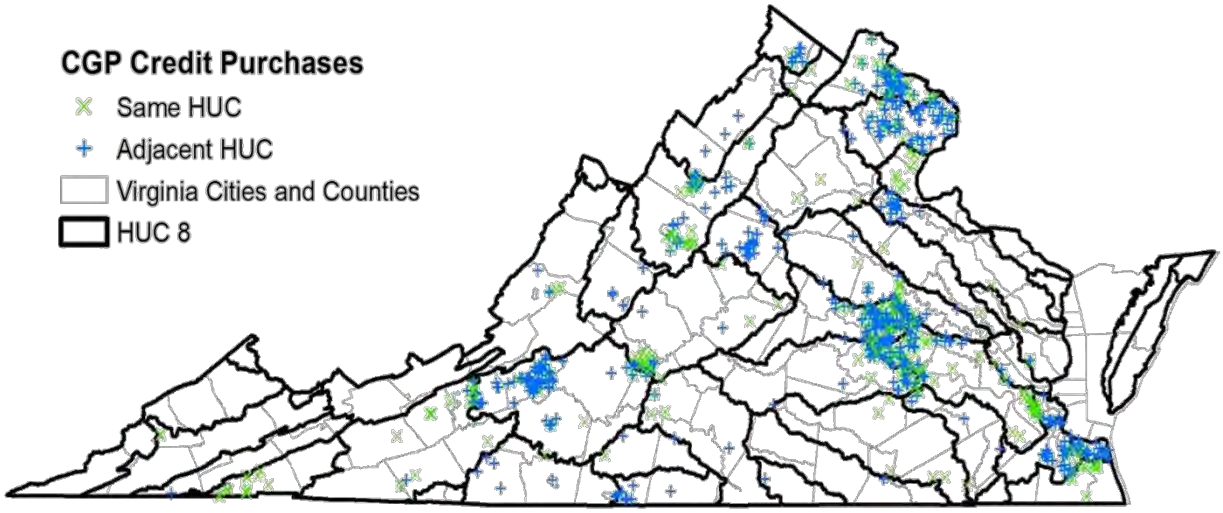

Figure 5. Map showing credit purchases from the same (green x) and adjacent (blue +) 8-digit HUCs for Construction General Permit compliance from 2014-2022.

Based on the amount of cross-HUC trading currently seen, many workgroup members predicted that the proposed prioritization of credits generated in the same eight-digit HUC would have a

large impact on private development and public infrastructure projects, particularly in the Chesapeake Bay watershed, where most credit purchases are from adjacent HUCs. This issue was of lesser concern in the southern rivers watersheds where there are fewer credits used overall and there are fewer HUCs in each major river basin (Figure 6).

Several representatives from the nutrient trading industry, as well as nutrient credit users, including the Virginia Department of Transportation and the Home Builder's Association of Virginia, noted that trading is already limited by local water quality restrictions[16] (Figure 7) when the land disturbing activity drains to a waterway with impairments for nutrients, benthics, dissolved oxygen, or chlorophyll-a, but without an approved Total Maximum Daily Load (TMDL). Additional restrictions apply if the land disturbing activity is local in an area with a nutrient TMDL anywhere in the Commonwealth; this restriction only applies in the Chesapeake Bay watershed if the local TMDL is stricter than the Bay TMDL. These local water quality restrictions, which went into effect January 1, 2021, drive nutrient banks closer to development activities and reduce land conversion acreage since the potential area in which those credits may be sold (the "service area") is smaller and the potential risk is higher as impairments are updated biannually.

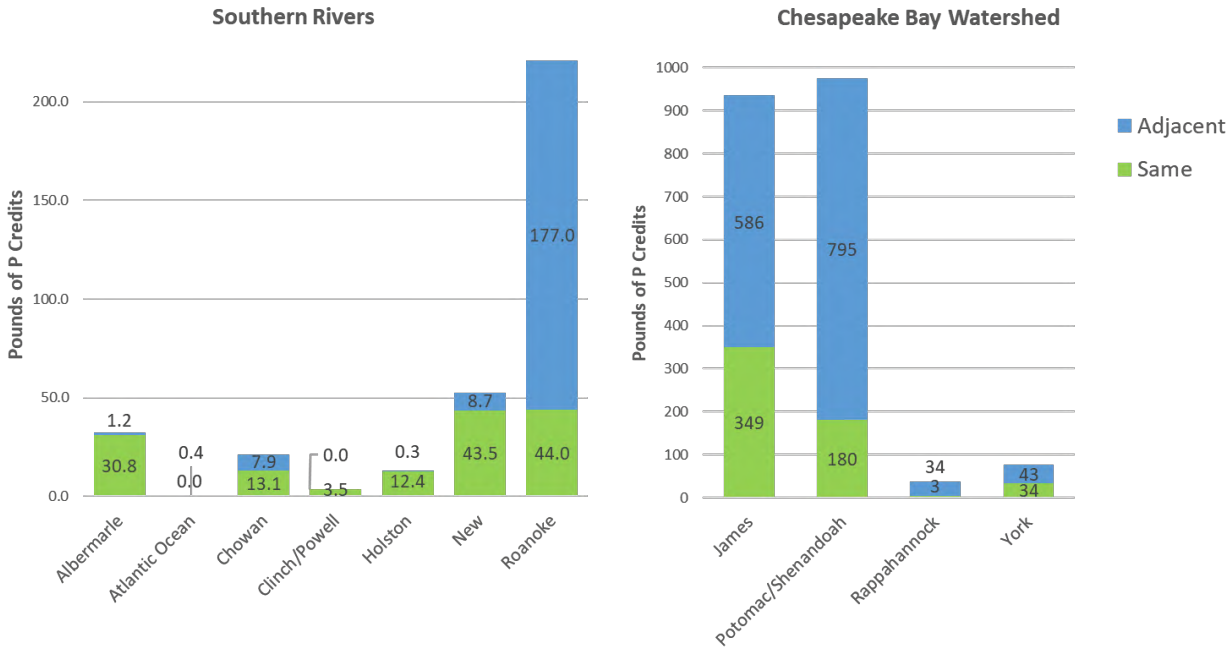

Figure 6. For each major river basin, this chart compares the amount of phosphorus credits acquired for Construction General Permit compliances that were generated in the same (green) eight-digit HUC as the land disturbing activity and those that were generated in adjacent (blue) eight-digit HUCs within the same major river basin.

[16] *See* 9VAC25-900.

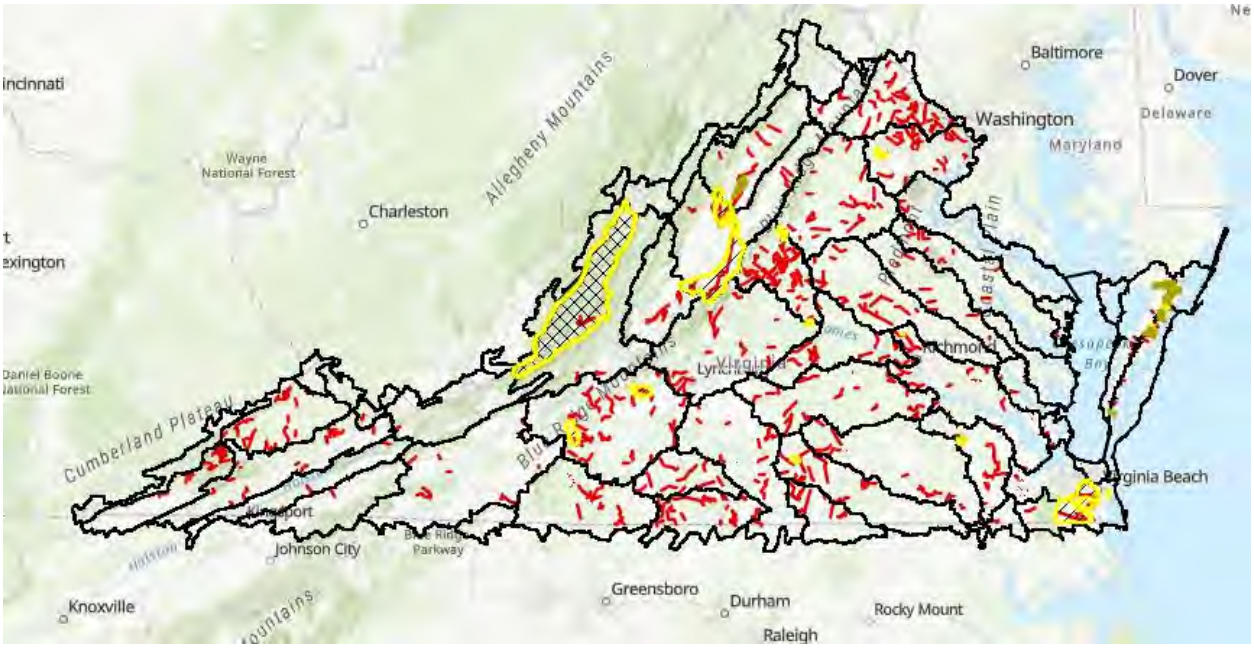

Figure 7. Map of relevant impairments that restrict nutrient trading per 9VAC25-900-91. Impaired streams and reservoirs without a TMDL are shown in red, completed local TMDLs are hatched with yellow outlines, and eight-digit HUCs are shown in thick black lines.[17]

Members of the nutrient banking industry raised several other concerns about the prioritization of purchases to the same eight-digit HUC. Nutrient bank owners were concerned about how the nutrient trading program would handle any potential trade restrictions for previously approved banks. Several people recommended that if there are any future changes to service area requirements they should only apply to new banks and existing banks should be able to continue to serve the areas that they were originally approved to serve. Proponents of this "grandfathering" said it was necessary to protect existing investments. These participants also noted that the proposed change to service areas would be most burdensome in developing areas where there is less land available to develop banks and an increasing demand for credits. Additionally, because there was no proposed allowance in HB 1283 for users to purchase credits from adjacent eight-digit HUCs if credit prices in the same eight-digit HUC were unreasonably high, it would provide an opportunity for an entity to develop a bank in an area of high development and charge outrageous prices, effectively ending the ability to use credits in that HUC. This concern has also been raised with the local water quality provisions in the current nutrient certification regulation. Credit users on the workgroup shared that nonpoint source nutrient credit prices have increased because of these provisions.

Representatives for agricultural communities and interests noted that prioritizing nutrient credit purchases from the same HUC as the land disturbing activity would place the burden of generating credits closer to the development rather than in adjacent agricultural communities. While there was no consensus on geographic restrictions, it was generally agreed that any revisions to service

[17] https://vadeq.maps.arcgis.com/apps/webappviewer/index.html?id=227927eefaf64c47853c081760077216

areas should remain linked to watershed units (e.g., HUCs and major river tributaries) rather than political jurisdictions, such as counties.

4. Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority needed to reduce the loss of important, prime, or unique farmland?

Workgroup members had differing interests and perspectives about how land conversion to generate credits for the nutrient trading program impacts the Commonwealth and its residents. There were many high-level concepts discussed, which revolved around the challenges in preserving prime farmland while supporting necessary development and infrastructure, and the competing interests of individual property owners, localities, and the Commonwealth. A fuller accounting of these discussions is available in the meeting minutes (Appendix E).

The workgroup generally agreed that preserving prime farmland is a laudable goal in the Commonwealth. However, some members noted that the demands for removing these lands from agricultural production are mounting due to a variety of pressures, including development, expanding infrastructure, solar power facilities, as well as generating credits for nutrient trading. One tool the workgroup identified for localities to protect prime farmland is through easement agreements with landowners, such as the purchase of development rights.[18] These easement agreements could be drafted to include restrictions on silviculture generally or participation in the nutrient trading program. These programs, which are funded in part by the state legislature, were noted to be underfunded and would require additional resources in order to expand the ability of localities to make these changes impactful.
The workgroup reached the following consensus: *The Commonwealth should increase funding of the Farmland Preservation Fund to incentivize conservation of prime farmland through local purchasing of development rights (PDR). (Fully Support – 16, Partially Support – 6, Oppose – 0)*

Many alternatives to HB 1283 were suggested for changing nutrient bank service areas (the area that nutrient banks can sell to and credit users can purchase from) to protect agricultural communities and to ensure developing areas are able to meet their water quality requirements. Several members suggested *expanding* service areas to reduce stress on counties adjacent to areas of high development. For example, allowing credits to be purchased from non-adjacent eight-digit HUCs or allowing some banks to be approved to serve the entire Commonwealth or Chesapeake Bay Watershed. Alternatively, one workgroup member suggested that separating the Shenandoah and Potomac Watersheds into two tributaries, as is done in the wetland and stream mitigation-banking program,[19] would reduce stress on agricultural localities west of Northern Virginia. These suggestions would not prevent the conversion of prime farmland to generate nutrient credits, but would reduce the market for these credits, making them less profitable.

Credit users on the workgroup suggested that any changes in service areas that restrict the purchase or sale of credits to protect prime farmland should be combined with a corresponding expansion of credit availability from other regions. For example, some workgroup members suggested that if an agricultural county in the Potomac River watershed were allowed to restrict selling credits to

[18] *See* Va. Code § 3.2-201.
[19] *See* Va. Code § 62.1-44.15:23A.

adjacent HUCs, then developers from the adjacent eight-digit HUCs would be allowed to purchase credits from an expanded service area that includes the entire major river basin. The workgroup representatives from the Chesapeake Bay Foundation and the James River Association noted that an expansion in service areas would result in the water quality reductions being generated farther from the development activity, possibly affecting local water quality in the jurisdictions where the development is occurring. Others in the nutrient banking industry responded that the Local Water Quality provisions[20] in the nutrient trading regulation would protect against detrimental impacts to local waterways.

Another recommendation from workgroup members from the agricultural community and some localities was to amend the nutrient trading regulation to require information about prime farmland, once available, be included in the nutrient trading application. For this to have a meaningful outcome, it would require a change in the nutrient trading statute to allow DEQ staff to consider the impact to prime farmland and the input of the locality in the review and approval process for nutrient banks. Currently, new nutrient banks are posted on the credit registry but there is no official opportunity for public feedback and no mechanism to deny an application based on a locality's concerns. Various interest groups also requested that information on prime farmland, when available, be made public so that landowners, nutrient bankers, and localities could make planning decisions prior to submitting an application. Representatives working on the map required by HB 894 confirmed that the information would be shared publicly. Members of the workgroup noted that landowners and nutrient bankers should have the opportunity to correct incorrect designations of prime soils if any such changes are enacted, though they emphasized that they could not agree to any legislative changes at this time due to the lack of data.

While the importance of farmland in Virginia was repeatedly noted during the workgroup meetings, several workgroup members associated with the nutrient banking community spoke on the benefits of the nonpoint source trading program at protecting water quality because of the requirement to bring any part of the property still in agricultural use up to "baseline" best practices, including having soil conservation and nutrient management plans, cover cropping, 35-foot vegetated buffers along perennial streams, and livestock exclusion fencing. Additionally, 5% of nutrient credits generated in the Chesapeake Bay Watershed are required to be retired and are unable to be sold by the nutrient bank. The benefits and desirability of forests were also expressed. Some workgroup members also stated that nutrient credit trading assists economic development and reduces government use of tax dollars to meet water quality goals.

Many workgroup members commented that nutrient credit trading is a statewide program, and as such, it should be regulated by the state to address all of the Commonwealth's water-quality goals. Rather than a local decision, this group advised that restrictions on nutrient bank location, service areas, and trading should remain at the state level. Members of the development community shared that the VSMA was adopted and the water quality standards were developed with an expectation that offsite compliance, including the purchase of nutrient credits with the Code amendment in 2009, was going to be allowed. Restrictions in this program may result in development and infrastructure projects unable to move forward if both on and offsite compliance is logistically and/or cost prohibitive.

[20] *See* 9VAC25-900.

Workgroup representatives for agricultural interests and some localities shared that this statewide program is impacting certain communities' character and economy by providing incentives for the conversion of prime farmland that are far larger than the tools available to keep land in agriculture. These workgroup members suggested that there should be local control over what land can be converted to generate nutrient credits. Their recommendations included a total restriction of the conversion of prime farmland, a cap on the amount of land conversion that can occur in one locality, or a restriction on the proportion of a farm property that may be converted. Some workgroup members expressed concern that the local government would restrict the conversion of agricultural land to forest as part of a state-authorized program, while allowing any other landowners to engage in silviculture without additional restrictions. The workgroup representative from Clarke County confirmed that the conversion of prime farmland to forest was allowed; however, the County would like to limit the unbalanced incentives (i.e., profits from the selling of nutrient credits) the nutrient trading program provides to permanently convert prime farmland. Various workgroup members who own or help to develop nutrient banks shared that this would place an unfair restriction on landowners to manage their private property.

In closing, the workgroup members agreed that while many of the topics of discussion could not be answered at this time, a more accurate picture of these issues might be available when a new map of prime farmland is created and stakeholders have time to evaluate how changes to the regulations may affect them. Most members agreed they were unwilling to agree on any changes to the program without having an accurate map and being able to quantify the impacts of any proposed changes to the program. They requested that any future changes to the program allow for stakeholder input.

Appendix A: Letter from Chairman R. Lee Ware

COMMONWEALTH OF VIRGINIA

HOUSE OF DELEGATES

RICHMOND

March 8, 2022

Michael Rolband, Director
Virginia Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond Virginia 23219

Director Rolband,

The Chesapeake Subcommittee of the House Committee on Agriculture, Chesapeake and Natural Resources tabled three bills during the 2022 General Assembly Session relating environmental credits. When taking these actions, the subcommittee also recommended that I, as Chairman of the full Committee, request that the Department of Environmental Quality establish a workgroup or workgroups to examine issues raised in those bills. The purpose of this letter is to make that request as more fully described below.

Two of the tabled bills (HB 276 from Delegate Coyner and HB 479 from Delegate Bulova) dealt with wetland and stream mitigation credits. Substitutes to HB 276 and HB 479 were offered in subcommittee and in each case requested formation of a work group to examine specific issues. I have attached copies of those substitutes which outline the requested areas for consideration.

The other tabled bill (HB 1283, Delegate Gooditis) related to the use of nonpoint source nutrient credits and agricultural lands. Testimony on the bill revealed that DEQ convened a workgroup during 2021 to examine issues similar to those raised by HB 1283. That workgroup did not identify recommendations but did begin the process of generating ideas and identified additional information needs. The suggestion was made during the Chesapeake Subcommittee meeting that DEQ and that workgroup continue to examine those issues, including those raised by HB 1283.

Please take this letter as my request that you convene a workgroup or workgroups to examine the issues as outlines in the substitutes for HB 276 and HB 479 and as outlined in this letter relating to HB 1283. I ask that you report back to me by December 1, 2022, on the results of these efforts.

Thank you for your assistance.

Sincerely,

R. Lee Ware

R. Lee Ware, Chairman
House Committee on Agriculture, Chesapeake and Natural Resource

Appendix B: HB 1283 (2022) Amendment in the Nature of a Substitute Offered for Consideration

HOUSE BILL NO. 1283

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on~~/for~~ _____

on _____)

(Patron Prior to Substitute--Delegate Gooditis)

A BILL to amend and reenact §§ 62.1-44.15:35, as it is currently effective and as it shall become effective, and 62.1-44.19:20 relating to nutrient credit generation; report.

Be it enacted by the General Assembly of Virginia:

1. That §§ 62.1-44.15:35, as it is currently effective and as it shall become effective, and 62.1-44.19:20 of the Code of Virginia are amended and reenacted as follows:

§ 62.1-44.15:35. (For expiration date, see Acts 2016, cc. 68 and 758, as amended by Acts 2017, c. 345) Nutrient credit use and additional offsite options for construction activities.

A. As used in this section:

"HUC" means an eight-digit hydrologic unit code as defined by the U.S. Geological Survey.

"Nutrient credit" or "credit" means a nutrient credit certified pursuant to Article 4.02 (§ 62.1-44.19:12 et seq.).

"Tributary," within the Chesapeake Bay watershed, has the same meaning as in § 62.1-44.19:13. For areas outside of the Chesapeake Bay watershed, "tributary" includes the following watersheds: Albemarle Sound, Coastal; Atlantic Ocean, Coastal; Big Sandy; Chowan; Clinch-Powell; New Holston (Upper Tennessee); New River; Roanoke; and Yadkin.

"Virginia Stormwater Management Program Authority" or "VSMP authority" has the same meaning as in § 62.1-44.15:24 and includes, until July 1, 2014, any locality that has adopted a local stormwater management program.

B. A VSMP authority is authorized to allow compliance with stormwater nonpoint nutrient runoff water quality criteria established pursuant to § 62.1-44.15:28, in whole or in part, through the use of the applicant's acquisition of nutrient credits in the same tributary.

C. No applicant shall use nutrient credits to address water quantity control requirements. 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. Where such a limitation exists, offsite options may be used provided that such options do not preclude or impair compliance with the local limitation.

D. A VSMP authority shall allow offsite options in accordance with subsection I when:

1. Less than five acres of land will be disturbed;

2. The postconstruction phosphorous control requirement is less than 10 pounds per year; or

3. The state permit applicant demonstrates to the satisfaction of the VSMP authority that (i) alternative site designs have been considered that may accommodate onsite best management practices, (ii) onsite best management practices have been considered in alternative site designs to the maximum extent practicable, (iii) appropriate onsite best management practices will be implemented, and (iv) full compliance with postdevelopment nonpoint nutrient runoff compliance requirements cannot practicably be met onsite. For purposes of this subdivision, if an applicant demonstrates onsite control of at least 75 percent of the required phosphorous nutrient reductions, the applicant shall be deemed to have met the requirements of clauses (i) through (iv).

E. Documentation of the applicant's acquisition of nutrient credits shall be provided to the VSMP authority and the Department in a certification from the credit provider documenting the number of phosphorus nutrient credits acquired and the associated ratio of nitrogen nutrient credits at the credit-generating entity. Until the effective date of regulations establishing application fees in accordance with § 62.1-44.19:20, the credit provider shall pay the Department a water quality enhancement fee equal to six percent of the amount paid by the applicant for the credits. Such fee shall be deposited into the Virginia Stormwater Management Fund established by § 62.1-44.15:29.

F. Nutrient credits used pursuant to subsection B shall be generated in the same ~~or adjacent eight-digit hydrologic unit code as defined by the United States Geological Survey~~ HUC as the permitted site

except as otherwise limited in subsection C. Nutrient credits outside the same ~~or adjacent eight-digit hydrologic unit code~~ HUC may only be used if it is determined by the VSMP authority that no credits are available within the same ~~or adjacent eight-digit hydrologic unit code~~ HUC when the VSMP authority accepts the final site design. In such cases, and subject to other limitations imposed in this section, credits available within (i) an adjacent HUC or (ii) the same tributary, if no credits are available within an adjacent HUC, may be used. In no case shall credits from another tributary be used.

G. For that portion of a site's compliance with stormwater nonpoint nutrient runoff water quality criteria being obtained through nutrient credits, the applicant shall (i) comply with a 1:1 ratio of the nutrient credits to the site's remaining postdevelopment nonpoint nutrient runoff compliance requirement being met by credit use and (ii) use credits certified as perpetual credits pursuant to Article 4.02 (§ 62.1-44.19:12 et seq.).

H. No VSMP authority may grant an exception to, or waiver of, postdevelopment nonpoint nutrient runoff compliance requirements unless offsite options have been considered and found not available.

I. The VSMP authority shall require that nutrient credits and other offsite options approved by the Department or applicable state board, including locality pollutant loading pro rata share programs established pursuant to § 15.2-2243, achieve the necessary nutrient reductions prior to the commencement of the applicant's land-disturbing activity. A pollutant loading pro rata share program established by a locality pursuant to § 15.2-2243 and approved by the Department or applicable state board prior to January 1, 2011, including those that may achieve nutrient reductions after the commencement of the land-disturbing activity, may continue to operate in the approved manner for a transition period ending July 1, 2014. The applicant shall have the right to select between the use of nutrient credits or other offsite options, except during the transition period in those localities to which the transition period applies. The locality may use funds collected for nutrient reductions pursuant to a locality pollutant loading pro rata share program under § 15.2-2243 for nutrient reductions in the same tributary within the same locality as the land-disturbing activity or for the acquisition of nutrient credits. In the case of a phased project, the applicant may acquire or achieve the offsite nutrient reductions prior to the commencement of each phase of the land-disturbing activity in an amount sufficient for each such phase.

J. Nutrient reductions obtained through nutrient credits shall be credited toward compliance with any nutrient allocation assigned to a municipal separate storm sewer system in a Virginia Stormwater Management Program Permit or Total Maximum Daily Load applicable to the location where the activity for which the nutrient credits are used takes place. If the activity for which the nutrient credits are used does not discharge to a municipal separate storm sewer system, the nutrient reductions shall be credited toward compliance with the applicable nutrient allocation.

K. A VSMP authority shall allow the full or partial substitution of perpetual nutrient credits for existing onsite nutrient controls when (i) the nutrient credits will compensate for 10 or fewer pounds of the annual phosphorous requirement associated with the original land-disturbing activity or (ii) existing onsite controls are not functioning as anticipated after reasonable attempts to comply with applicable maintenance agreements or requirements and the use of nutrient credits will account for the deficiency. Upon determination by the VSMP authority that the conditions established by clause (i) or (ii) have been met, the party responsible for maintenance shall be released from maintenance obligations related to the onsite phosphorous controls for which the nutrient credits are substituted.

L. To the extent available, with the consent of the applicant, the VSMP authority, the Board or the Department may include the use of nutrient credits or other offsite measures in resolving enforcement actions to compensate for (i) nutrient control deficiencies occurring during the period of noncompliance and (ii) permanent nutrient control deficiencies.

M. This section shall not be construed as limiting the authority established under § 15.2-2243; however, under any pollutant loading pro rata share program established thereunder, the subdivider or developer shall be given appropriate credit for nutrient reductions achieved through nutrient credits or other offsite options.

N. In order to properly account for allowed nonpoint nutrient offsite reductions, an applicant shall report to the Department, in accordance with Department procedures, information regarding all offsite reductions that have been authorized to meet stormwater postdevelopment nonpoint nutrient runoff compliance requirements.

O. An applicant or a permittee found to be in noncompliance with the requirements of this section shall be subject to the enforcement and penalty provisions of this article.

§ 62.1-44.15:35. (For effective date, see Acts 2016, cc. 68 and 758, as amended by Acts 2017, c. 345) Nutrient credit use and additional offsite options for construction activities.

A. As used in this section:

"Nutrient credit" or "credit" means a type of offsite option that is a nutrient credit certified pursuant to Article 4.02 (§ 62.1-44.19:12 et seq.).

"Offsite option" means an alternative available, away from the real property where land disturbance is occurring, to address water quality or water quantity technical criteria established pursuant to § 62.1-44.15:28.

"Tributary," within the Chesapeake Bay watershed, has the same meaning as in § 62.1-44.19:13. For areas outside of the Chesapeake Bay watershed, "tributary" includes the following watersheds: Albemarle Sound, Coastal; Atlantic Ocean, Coastal; Big Sandy; Chowan; Clinch-Powell; New Holston (Upper Tennessee); New River; Roanoke; and Yadkin.

B. No offsite option shall be used 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. Where such a limitation exists, offsite options may be used provided that such options do not preclude or impair compliance with the local limitation.

C. Unless prohibited by subsection B, a VESMP authority or a VSMP authority:

1. May allow the use of offsite options for compliance with water quality and water quantity technical criteria established pursuant to § 62.1-44.15:28, in whole or in part; and

2. Shall allow the use of nutrient credits for compliance with the water quality technical criteria when:

a. Less than five acres of land will be disturbed;

b. The phosphorous water quality reduction requirement is less than 10 pounds per year; or

c. It is demonstrated to the satisfaction of the VESMP or VSMP authority that (i) alternative site designs have been considered that may accommodate onsite best management practices, (ii) onsite best management practices have been considered in alternative site designs to the maximum extent practicable, (iii) appropriate onsite best management practices will be implemented, and (iv) compliance with water quality technical criteria cannot practicably be met onsite. The requirements of clauses (i) through (iv) shall be deemed to have been met if it is demonstrated that onsite control of at least 75 percent of the required phosphorous water quality reduction will be achieved.

D. No VSMP or VESMP authority may grant an exception to, or waiver of, post-development nonpoint nutrient runoff compliance requirements unless offsite options have been considered and found not available.

E. The VSMP or VESMP authority shall require that offsite options approved by the Department or applicable state board achieve the necessary phosphorous water quality reductions prior to the commencement of the land-disturbing activity. A pollutant loading pro rata share program established by a locality pursuant to § 15.2-2243 and approved by the Department or applicable state board prior to January 1, 2011, including those that may achieve nutrient reductions after the commencement of the land-disturbing activity, may continue to operate in the approved manner for a transition period ending July 1, 2014. In the case of a phased project, the land disturber may acquire or achieve the offsite nutrient reductions prior to the commencement of each phase of the land-disturbing activity in an amount sufficient for each such phase. The land disturber shall have the right to select between the use of nutrient credits or other offsite options, except during the transition period in those localities to which the transition period applies.

F. With the consent of the land disturber, in resolving enforcement actions, the VESMP authority or the Board may include the use of offsite options to compensate for (i) nutrient control deficiencies occurring during the period of noncompliance and (ii) permanent nutrient control deficiencies.

G. This section shall not be construed as limiting the authority established under § 15.2-2243; however, under any pollutant loading pro rata share program established thereunder, the subdivider or developer shall be given appropriate credit for nutrient reductions achieved through offsite options. The

locality may use funds collected for nutrient reductions pursuant to a locality pollutant loading pro rata share program for nutrient reductions in the same tributary within the same locality as the land-disturbing activity, or for the acquisition of nutrient credits.

H. Nutrient credits shall not be used to address water quantity technical criteria. Nutrient credits shall be generated in the same ~~or adjacent~~ fourth order subbasin, as defined by the hydrologic unit boundaries of the National Watershed Boundary Dataset, as the land-disturbing activity. If no credits are available within ~~these subbasins~~ such subbasin when the VESMP or VSMP authority accepts the final site design, credits available within (i) an adjacent fourth order subbasin or (ii) the same tributary, if no credits are available in an adjacent subbasin, may be used. The following requirements apply to the use of nutrient credits:

1. Documentation of the acquisition of nutrient credits shall be provided to the VESMP authority and the Department or the VSMP authority in a certification from the credit provider documenting the number of phosphorus nutrient credits acquired and the associated ratio of nitrogen nutrient credits at the credit-generating entity.

2. Until the effective date of regulations establishing application fees in accordance with § 62.1-44.19:20, the credit provider shall pay the Department a water quality enhancement fee equal to six percent of the amount paid for the credits. Such fee shall be deposited into the Virginia Stormwater Management Fund established by § 62.1-44.15:29.

3. For that portion of a site's compliance with water quality technical criteria being obtained through nutrient credits, the land disturber shall (i) comply with a 1:1 ratio of the nutrient credits to the site's remaining post-development nonpoint nutrient runoff compliance requirement being met by credit use and (ii) use credits certified as perpetual credits pursuant to Article 4.02 (§ 62.1-44.19:12 et seq.).

4. A VESMP or VSMP authority shall allow the full or partial substitution of perpetual nutrient credits for existing onsite nutrient controls when (i) the nutrient credits will compensate for 10 or fewer pounds of the annual phosphorous requirement associated with the original land-disturbing activity or (ii) existing onsite controls are not functioning as anticipated after reasonable attempts to comply with applicable maintenance agreements or requirements and the use of nutrient credits will account for the

deficiency. Upon determination by the VESMP or VSMP authority that the conditions established by clause (i) or (ii) have been met, the party responsible for maintenance shall be released from maintenance obligations related to the onsite phosphorous controls for which the nutrient credits are substituted.

I. The use of nutrient credits to meet post-construction nutrient control requirements shall be accounted for in the implementation of total maximum daily loads and MS4 permits as specified in subdivisions 1, 2, and 3. In order to ensure that the nutrient reduction benefits of nutrient credits used to meet post-construction nutrient control requirements are attributed to the location of the land-disturbing activity where the credit is used, the following account method shall be used:

1. Chesapeake Bay TMDL.

a. Where nutrient credits are used to meet nutrient reduction requirements applicable to redevelopment projects, a 1:1 credit shall be applied toward MS4 compliance with the Chesapeake Bay TMDL waste load allocation or related MS4 permit requirement applicable to the MS4 service area, including the site of the land-disturbing activity, such that the nutrient reductions of redevelopment projects are counted as part of the MS4 nutrient reductions to the same extent as when land-disturbing activities use onsite measures to comply.

b. Where nutrient credits are used to meet post-construction requirements applicable to new development projects, the nutrient reduction benefits represented by such credits shall be attributed to the location of the land-disturbing activity where the credit is used to the same extent as when land-disturbing activities use onsite measures to comply.

c. A 1:1 credit shall be applied toward compliance by a locality that operates a regulated MS4 with its Chesapeake Bay TMDL waste load allocation or related MS4 permit requirement to the extent that nutrient credits are obtained by the MS4 jurisdiction from a nutrient credit-generating entity as defined in § 62.1-44.19:13 independent of or in excess of those required to meet the post-construction requirements.

2. Local nutrient-related TMDLs adopted prior to the land-disturbing activity.

a. Where nutrient credits are used to meet nutrient reduction requirements applicable to redevelopment projects, a 1:1 credit shall be applied toward MS4 compliance with any local TMDL waste load allocation or related MS4 permit requirement applicable to the MS4 service area, including the site

of the land-disturbing activity, such that the nutrient reductions of redevelopment projects are counted as part of the MS4 nutrient reductions to the same extent as when land-disturbing activities use onsite measures to comply, provided the nutrient credits are generated upstream of where the land-disturbing activity discharges to the water body segment that is subject to the TMDL.

b. Where nutrient credits are used to meet post-construction requirements applicable to new development projects, the nutrient reduction benefits represented by such credits shall be attributed to the location of the land-disturbing activity where the credit is used to the same extent as when land-disturbing activities use onsite measures to comply, provided the nutrient credits are generated upstream of where the land-disturbing activity discharges to the water body segment that is subject to the TMDL.

c. A 1:1 credit shall be applied toward MS4 compliance with any local TMDL waste load allocation or related MS4 permit requirement to the extent that nutrient credits are obtained by the MS4 jurisdiction from a nutrient credit-generating entity as defined in § 62.1-44.19:13 independent of or in excess of those required to meet the post-construction requirements. However, such credits shall be generated upstream of where the land-disturbing activity discharges to the water body segment that is subject to the TMDL.

3. Future local nutrient-related TMDLs.

This subdivision applies only to areas where there has been a documented prior use of nutrient credits to meet nutrient control requirements in an MS4 service area that flows to or is upstream of a water body segment for which a nutrient-related TMDL is being developed. For a TMDL waste load allocation applicable to the MS4, the Board shall develop the TMDL waste load allocation with the nutrient reduction benefits represented by the nutrient credit use being attributed to the MS4, except when the Board determines during the TMDL development process that reasonable assurance of implementation cannot be provided for nonpoint source load allocations due to the nutrient reduction benefits being attributed in this manner. The Board shall have no obligation to account for nutrient reduction benefits in this manner if the MS4 does not provide the Board with adequate documentation of (i) the location of the land-disturbing activities, (ii) the number of nutrient credits, and (iii) the generation of the nutrient credits upstream of the site at which the land-disturbing activity discharges to the water body segment addressed

by the TMDL. Such attribution shall not be interpreted as amending the requirement that the TMDL be established at a level necessary to meet the applicable water quality standard.

§ 62.1-44.19:20. Nutrient credit certification.

A. The Board may adopt regulations for the purpose of establishing procedures for the certification of point source nutrient credits except that no certification shall be required for point source nitrogen and point source phosphorus credits generated by point sources regulated under the Watershed General Virginia Pollutant Discharge Elimination System Permit issued pursuant to § 62.1-44.19:14. The Board shall adopt regulations for the purpose of establishing procedures for the certification of nonpoint source nutrient credits.

B. Regulations adopted pursuant to this section shall:

1. Establish procedures for the certification and registration of credits, including:

a. Certifying credits that may be generated from effective nutrient controls or removal practices, including activities 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;

b. Certifying credits that may be generated from agricultural and urban stormwater best management practices, use or management of manures, managed turf, land use conversion, stream or wetlands projects, shellfish aquaculture, algal harvesting, and other established or innovative methods of nutrient control or removal, as appropriate;

c. Establishing a process and standards for wetland or stream credits to be converted to nutrient credits. Such process and standards shall only apply to wetland or stream credits that were established after July 1, 2005, and have not been transferred or used. Under no circumstances shall such credits be used for both wetland or stream credit and nutrient credit purposes;

d. Certifying credits from multiple practices that are bundled as a package by the applicant;

e. Prohibiting the certification of credits generated from activities funded by federal or state water quality grant funds other than controls and practices under subdivision ~~B 1~~ a; however, baseline levels may be achieved through the use of such grants;

f. Prohibiting the certification of credits generated from activities that include the conversion for offset generation of any parcel of important, prime, or unique farmland that was acquired for the purpose of generating nutrient credits. For purposes of this subdivision, "important farmland," "prime farmland," and "unique farmland" mean the same as those terms are defined in subsection C of § 3.2-205;

g. Establishing a timely and efficient certification process including application requirements, a reasonable application fee schedule not to exceed $10,000 per application, and review and approval procedures;

~~g.~~ h. Requiring public notification of a proposed nutrient credit-generating entity; and

~~h.~~ i. Establishing a timeline for the consideration of certification applications for land conversion projects. The timeline shall provide that within 30 days of receipt of an application the Department shall, if warranted, conduct a site visit and that within 45 days of receipt of an application the Department shall either determine that the application is complete or request additional specific information from the applicant. A determination that an application for a land conversion project is complete shall not require the Department to issue the certification. The Department shall deny, approve, or approve with conditions an application within 15 days of the Department's determination that the application is complete. When the request for credit release is made concurrently with the application for a land conversion project certification, the concurrent release shall be processed on the same timeline. 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 within 15 days of the site visit or determination that a site visit is not warranted. The timelines set out in this subdivision shall be implemented prior to adoption of regulations. The Department shall release credits from a land conversion project after it is satisfied that the applicant has met the criteria for release in an approved nutrient reduction implementation plan.

2. Establish credit calculation procedures for proposed credit-generating practices, including the determination of:

a. Baselines for credits certified under subdivision ~~B~~ 1 a in accordance with any applicable provisions of the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs;

b. Baselines established for agricultural practices, which shall be those actions necessary to achieve a level of reduction assigned in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs as implemented on the tract, field, or other land area under consideration;

c. Baselines for urban practices from new development and redevelopment, which shall be in compliance with postconstruction nutrient loading requirements of the Virginia Stormwater Management Program regulations. Baselines for all other existing development shall be at a level necessary to achieve the reductions assigned in the urban sector in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs;

d. Baselines for land use conversion, which shall be based on the pre-conversion land use and the level of reductions assigned in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs applicable to that land use;

e. Baselines for other nonpoint source credit-generating practices, which shall be based on the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs using the best available scientific and technical information;

f. Unless otherwise established by the Board, for certification within the Chesapeake Bay Watershed a credit-generating practice that involves land use conversion, which shall represent controls beyond those in place as of July 1, 2005. For other waters for which a TMDL has been approved, the practice shall represent controls beyond those in place at the time of TMDL approval;

g. Baseline dates for all other credit-generating practices, which shall be based on the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs; and

h. Credit quantities, which shall be established using the best available scientific and technical information at the time of certification;

3. Provide certification of credits on an appropriate temporal basis, such as annual, term of years, or perpetual, depending on the nature of the credit-generating practice. A credit shall be certified for a term of no less than 12 months;

4. Establish requirements to reasonably assure the generation of the credit depending on the nature of the credit-generating activity and use, such as legal instruments for perpetual credits, operation and

maintenance requirements, and associated financial assurance requirements. Financial assurance requirements may include letters of credit, escrows, surety bonds, insurance, and where the credits are used or generated by a locality, authority, utility, sanitation district, or permittee operating an MS4 or a point source permitted under this article, its existing tax or rate authority;

5. Establish appropriate reporting requirements;

6. Provide for the ability of the Department to inspect or audit for compliance with the requirements of such regulations;

7. Provide that the option to acquire nutrient credits for compliance purposes shall not eliminate any requirement to comply with local water quality requirements;

8. Establish a credit retirement requirement whereby five percent of nonpoint source credits in the Chesapeake Bay Watershed other than controls and practices under subdivision ~~B~~ 1 a are permanently retired at the time of certification pursuant to this section for the purposes of offsetting growth in unregulated nutrient loads; and

9. Establish such other requirements as the Board deems necessary and appropriate.

C. Prior to the adoption of such regulations, the Board shall certify (i) credits that may be generated from effective nutrient controls or removal practices, including activities 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, on a case-by-case basis using the best available scientific and technical information and (ii) credits that are located in tributaries outside of the Chesapeake Bay watershed as defined in § 62.1-44.15:35, using an average of the nutrient removal rates for each practice identified in Appendix A of the Department's document "Trading Nutrient Reductions from Nonpoint Source Best Management Practices in the Chesapeake Bay Watershed: Guidance for Agricultural Landowners and Your Potential Trading Partners. "

D. The Department shall establish and maintain an online Virginia Nutrient Credit Registry of credits as follows:

1. The registry shall include all nonpoint source credits certified pursuant to this article and may include point source nitrogen and point source phosphorus credits generated from point sources covered

by the general permit issued pursuant to § 62.1-44.19:14 or point source nutrient credits certified pursuant to this section at the option of the owner. No other credits shall be valid for compliance purposes.

2. Registration of credits on the registry shall not preclude or restrict the right of the owner of such credits from transferring the credits on such commercial terms as may be established by and between the owner and the regulated or unregulated party acquiring the credits.

3. The Department shall establish procedures for the listing and tracking of credits on the registry, including but not limited to (i) notification of the availability of new nutrient credits to the locality where the credit-generating practice is implemented at least five business days prior to listing on the registry to provide the locality an opportunity to acquire such credits at fair market value for compliance purposes and (ii) notification that the listing of credits on the registry does not constitute a representation by the Board or the owner that the credits will satisfy the specific regulatory requirements applicable to the prospective user's intended use and that the prospective user is encouraged to contact the Board for technical assistance to identify limitations, if any, applicable to the intended use.

4. The registry shall be publicly accessible without charge.

E. The owner or operator of a nonpoint source nutrient credit-generating entity that fails to comply with the provisions of this section shall be subject to the enforcement and penalty provisions of § 62.1-44.19:22.

F. Nutrient credits from stormwater nonpoint nutrient credit-generating facilities in receipt of a Nonpoint Nutrient Offset Authorization for Transfer letter from the Department prior to July 1, 2012, shall be considered certified nutrient credits and shall not be subject to further certification requirements or to the credit retirement requirement under subdivision B 8. However, such facilities shall be subject to the other provisions of this article, including registration, inspection, reporting, and enforcement.

2. That the Department of Environmental Quality shall, by December 31, 2022, report to the Governor and the Chairmen of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources on the nutrient credit trading program from its beginning to the present. Such report shall detail (i) the total number of nutrient credits generated, (ii) the identities of the purchasers of nutrient credits,

(iii) the location of the development mitigated by any given nutrient credit, (iv) the location and prior use of any land acquired to create any given credit repository, and (v) the frequency with which land is acquired for the purpose of nutrient credit trading outside of the eight-digit hydrologic unit code, as defined by the U.S. Geological Survey, in which the development occurs.

#

Appendix C: Review of the Practice of Retiring Agricultural Land for the Generation of Nutrient Credits (December 2021)

A REPORT TO

THE CHAIRS OF THE HOUSE COMMITTEE ON AGRICULTURE, CHESAPEAKE AND NATURAL RESOURCES, THE SENATE COMMITTEE ON AGRICULTURE, CONSERVATION, AND NATURAL RESOURCES, AND THE VIRGINIA DELEGATION TO THE CHESAPEAKE BAY COMMISSION

REVIEW OF THE PRACTICE OF RETIRING AGRICULTURAL LAND FOR THE GENERATION OF NUTRIENT CREDITS

DECEMBER 2021

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Executive Summary

Item 377 O in 2021 Special Session I Va. Acts Ch. 552 directed the Department of Environmental Quality (DEQ), in consultation with the Department of Agriculture and Consumer Services and the Department of Forestry to convene a workgroup to review the practice of retiring agricultural land for the generation of nutrient credits. The workgroup met on November 1, 2021 and following introductions and an overview of the nonpoint source nutrient banking program was asked to discuss three specific questions:

1. "Does the practice of retiring agricultural land for the generation of nutrient credits have an impact on agricultural sustainability, farmland retention, farmland preservation, or functions of the nutrient exchange in the Virginia portion of the Chesapeake Bay watershed and its sub-watersheds?"

2. "If the establishment of nutrient banks has an impact on farmland retention/availability, what recommendations do you suggest regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland?"

3. "In situations where land is converted to forestland to generate nutrient credits, what protections are in the nutrient credit trading regulation to ensure the forestland is managed under a forestry plan and/or noxious weeds or invasive species are controlled."

This report summarizes the workgroup's process and discussions.

Introduction

Item 377 O in 2021 Special Session I Va. Acts Ch. 552 directed the Department of Environmental Quality (DEQ), in consultation with the Department of Agriculture and Consumer Services and the Department of Forestry, to:

> [E]stablish a workgroup to review the practice of retiring agricultural land for the generation of nutrient credits and determine its impact on agricultural sustainability, farmland retention, farmland preservation, and functions of the nutrient credit exchange in the Virginia portion of the Chesapeake Bay watershed and its subwatersheds. If it is determined that there is impact on farmland retention/availability, the report should include recommendations regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland. If the land for nutrient credits is converted to forestland, the workgroup should identify what protections are in the nutrient credit trading regulations to ensure the forestland is managed under a forestry management plan and/or noxious weed or invasive species are controlled. The review shall be completed and provided to the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources, the Senate Committee on Agriculture, Conservation, and Natural Resources and the Virginia delegation of the Chesapeake Bay Commission by December 1, 2021. The workgroup shall include representatives of the Virginia Agribusiness Council, Virginia Farm Bureau, the Chesapeake Bay Commission, Virginia Cooperative Extension, the Virginia Department of Transportation, Home Builders Association of Virginia, Virginia Association for Commercial Real Estate, representatives from local Soil and Water Conservation Districts, representatives of local governments, local economic development officials, and other stakeholders deemed appropriate by the Department.[1]

Nonpoint source nutrient credits are nutrient reductions that are certified by DEQ pursuant to the provisions of the Code of Virginia.[2] Nonpoint source nutrient credits are expressed in pounds of phosphorous or nitrogen.[3] Nonpoint source nutrient credits may be generated through a variety of practices, including but not limited to land conversion.[4] Land conversion is the practice of permanently converting land from a use that generates a certain amount of nutrient runoff, such as cropland, to a land use that generates a lower amount of nutrient runoff, such as forestland.[5] The amount of nonpoint source nutrient credits generated by land conversion depends on the pre and post conversion use of the land and is established in regulation and guidance.

The Virginia Stormwater Management Act allows for nonpoint source nutrient credits to be used for compliance purposes with the Commonwealth's post-construction water quality requirements.[6] Currently, the primary driver of demand for nonpoint source nutrient credits is from entities engaged in development or redevelopment that use nonpoint source nutrient credits for compliance with the Virginia Stormwater Management Act's post-construction water quality

[1] 2021 Special Session I Va. Acts Ch. 552.
[2] *See* Va. Code § 62.1-44.19:13.
[3] *See id.*
[4] *See* 9VAC25-900.
[5] *See id.*
[6] Va. Code § 62.1-44.15:35 B.

requirements. The Virginia Stormwater Management Act specifies that nonpoint source nutrient credits used for compliance with the Act's post-construction water quality requirements must be generated in the same or adjacent eight-digit Hydrologic Unit Code (HUC) as where the development or redevelopment activity is taking place.[7] As a result, nonpoint source nutrient bankers frequently propose and seek to establish nonpoint source nutrient banks in HUCs with a large amount of construction activity or in HUCs adjacent to those with a large amount of construction activity.

To date DEQ has approved about 15,100 acres of land conversion to generate nonpoint source nutrient credits. This figure includes approved nutrient banks where hay, pasture, crop, or fallow fields have been converted or have been proposed to be converted to forest. Crop to hay conversions, golf courses, and urban best management practices are not included in this figure. Additionally, not all approved plans have been implemented at this time. In other words, not all of these land conversion practices have actually taken place, so the actual number of acres where land conversion has occurred to generate nonpoint source nutrient credits is less than the approximately 15,100 acres that have been approved. The table below shows a breakdown of approved land conversion acreage by county.

County	**Acres**
Accomack	44.81
Amelia	691.48
Appomattox	553.64
Augusta	444.63
Buckingham	1025.25
Campbell	185.38
Charles City	25.04
Charlotte	326.42
Chesapeake	59.49
Chesterfield	159.83
Clarke	1082.51
Culpeper	256.07
Cumberland	337.00
Dinwiddie	23.32
Essex	35.40
Fauquier	1263.97
Franklin	106.35
Frederick	118.36
Goochland	266.20
Halifax	482.62
Hanover	123.22
Henrico	188.68
Highland	40.36
Isle of Wight	282.47

[7] Va. Code § 62.1-44.15:35 F.

James City	15.80
King and Queen	215.70
King George	116.59
King William	164.07
Loudoun	570.56
Lunenburg	69.95
Middlesex	288.41
Montgomery	114.07
New Kent	206.30
Northumberland	267.05
Nottoway	18.20
Pittsylvania	388.29
Powhatan	78.83
Prince Edward	605.43
Pulaski	75.99
Rockbridge	69.15
Rockingham	286.72
Scott	46.79
Shenandoah	152.38
Smyth	56.56
Southampton	43.31
Suffolk	305.54
Surry	169.68
Virginia Beach	26.80
Washington	78.93
Westmoreland	1064.86
Wise	13.28
Northampton	28.00
Bath	27.72
Nelson	221.40
Giles	163.45
Grayson	18.99
Franklin City	81.20
Sussex	20.98
Brunswick	20.76
Orange	170.87
Richmond	47.55
Gloucester	50.10
Floyd	151.55
Louisa	89.39
Wythe	76.72
Bedford	64.08
Madison	25.78
Prince George	136.92

Caroline	72.92
Grand Total	**15100.12**

Because nonpoint source nutrient credits are being used to offset permanent changes in land use due to development or redevelopment, the activities that generate nonpoint source nutrient credits for such compliance purposes must also be permanent. The Nutrient Trading Program's regulations impose several requirements on nonpoint source nutrient banks that generate nonpoint source nutrient credits through the use of land conversion. For example, the regulations require that woody invasive species must be controlled, mechanically or chemically, if they impact more than five percent of the project's acreage. The existing regulations also require that a qualified professional must develop a land management plan that addresses invasive species control, forest management, and statements that timber harvesting and thinning will adhere to best management practices set forth by the Department of Forestry's Water Quality Guide and any other applicable requirements. Additionally, the existing regulations require 10 years of monitoring of reforestation projects and every property has a Declaration of Restrictions recorded that outlines the land management requirements and timber harvesting guidelines apply to the nutrient bank area even if ownership changes.

Workgroup Membership

Consistent with the direction provided in 2021 Special Session I Va. Acts Ch. 552, the following individuals were asked to participate on the Workgroup to Review the Practice of Retiring Agricultural Land for the Generation of Nutrient Credits:

Jennifer Perkins, Virginia Department of Agriculture and Consumer Services
Terry Lasher, Virginia Department of Forestry
Kyle Shreve, Virginia Agribusiness Council
Martha Moore, Virginia Farm Bureau
Adrienne Kotula, Chesapeake Bay Commission
Lonnie Johnson, Virginia Cooperative Extension
Chris Swanson, Virginia Department of Transportation
Evan Branosky, Home Builders Association of Virginia
Phil Abraham, Virginia Association for Commercial Real Estate
Chris Boies, Clarke County
Justin Mackay-Smith
Shannon Varner, Virginia Environmental Restoration Association
Brian Wagner, Resource Environmental Solutions
Casey Jensen, EcoCap
Samuel Markwith, Tidewater Soil and Water Conservation District
T.J. Mascia, Davey Resource Group

Workgroup Discussion

The workgroup met on November 1, 2021 at DEQ's Central Office in Richmond, Virginia. After member introductions, an overview of the meeting objectives, and a review of current practices

offered by DEQ staff the discussion was opened up for around the table questions and discussion.

After the around the table questions and discussion, members of the workgroup were asked to discuss three specific questions:

1. "Does the practice of retiring agricultural land for the generation of nutrient credits have an impact on agricultural sustainability, farmland retention, farmland preservation, or functions of the nutrient exchange in the Virginia portion of the Chesapeake Bay watershed and its sub-watersheds?"

2. "If the establishment of nutrient banks has an impact on farmland retention/availability, what recommendations do you suggest regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland?"

3. "In situations where land is converted to forestland to generate nutrient credits, what protections are in the nutrient credit trading regulation to ensure the forestland is managed under a forestry plan and/or noxious weeds or invasive species are controlled."

The workgroup engaged in discussion following each question. A summary of the discussion is provided below. For a complete description of the workgroup's discussion please see Appendix 1: Workgroup Meeting Minutes. The discussion summarized below and in Appendix 1 reflects the various positions of the workgroup members and provides thoughtful answers to the questions.

In response to the question about whether the practice of retiring agricultural land for the generation of nutrient credits has an impact on agricultural sustainability, farmland retention, farmland preservation, or functions of the nutrient exchange in the Virginia portion of the Chesapeake Bay watershed and its sub-watersheds workgroup members expressed a range of positions. Some workgroup members stated that retirement of a large proportion of agricultural land in a locality adversely affects the locality. These workgroup members suggested that localities be allowed to prohibit nonpoint source nutrient banks from selling credits outside of the locality where those credits are generated, or be authorized to opt out of allowing nonpoint source nutrient banks, or land conversion projects specifically, in the locality. Workgroup members also raised the possibility of considering whether a project results in retiring an entire farm, as opposed to a portion of the farm, or limiting the generation of nonpoint source nutrient credits to "marginal" agricultural land.

Other workgroup members noted that nonpoint source nutrient credits are being used by development and redevelopment projects to satisfy the water quality requirements of the Virginia Stormwater Management Program, and stated that nonpoint source nutrient credits are necessary for economic development. These workgroup members expressed that there are benefits to maintaining or expanding the nonpoint source nutrient credit program.

Additional workgroup members stated that recent changes to the nutrient credit certification program, informed by refined Chesapeake Bay modeling, have reduced the amount of nonpoint source nutrient credits that can be generated from land conversion practices compared to the amount of nonpoint source nutrient credits that would have been generated by the same project previously. These workgroup members indicated that they thought in the future there would be fewer proposed and conversion projects. It was noted that recently there have been fewer land conversion project proposals and more proposals based on the use of stream restoration projects to generate nonpoint source nutrient credits.

Finally, some workgroup members stated that there is a need for more complete data to evaluate agricultural land retention overall.

Workgroup members also shared a range of suggestions in response to the question about recommendations regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland if the establishment of nutrient banks has an impact on farmland retention/availability. Some workgroup members suggested that localities could be allowed to set a threshold for the percentage of agricultural land in the locality that would be eligible for land conversion to generate nonpoint source nutrient credits, after which the locality could be allowed to opt out of allowing further land conversion projects to generate nonpoint source nutrient credits in the locality. Other workgroup members suggested that criteria could be established to identify marginal agricultural land, and that land could be incentivized for land conversion projects to generate nonpoint source nutrient credits.

Additional workgroup members suggested that the service area from which nonpoint source nutrient credits could be acquired for compliance purposes in high-development areas could be expanded, and suggested this could alleviate the pressure to establish nonpoint source nutrient banks in localities immediately adjacent to high-development areas. Other workgroup members suggested offering incentives to prioritize stream restoration over land conversion as a means to generate nonpoint source nutrient credits.

Further suggestions included revising the Code of Virginia to provide that nonpoint source nutrient credits may only be required from an adjacent eight digit hydrologic unit code if there are no credits available in the same eight digit hydrologic unit code. Others noted that would impact existing banks, unless they were grandfathered. Additional workgroup members suggested that nonpoint source nutrient credits could be restricted to use in the locality in which the credits are generated. Other workgroup members suggested requiring developers to acquire more nonpoint source nutrient credits when purchasing credits from an adjacent hydrologic unit code as compared to if credits were purchased from the same hydrologic unit code in which the development or redevelopment project is taking place.

Finally, workgroup members discussed the protections that are in the nutrient credit trading regulation to ensure the forestland is managed under a forestry plan and/or noxious weeds or invasive species are controlled in situations where land is converted to forestland to generate nutrient credits. DEQ staff noted that the existing regulations require:

- Woody invasive species must be controlled, mechanically or chemically, if they impact more than five percent of the project's acreage.
- A qualified professional must develop a land management plan that addresses invasive species control, forest management.
- Statements that timber harvesting and thinning will adhere to best management practices set forth by the Department of Forestry's Water Quality Guide and any other applicable requirements.
- Ten years of monitoring of reforestation projects.
- Every property must have a Declaration of Restrictions recorded that outlines the land management requirements and timber harvesting guidelines that apply to the nutrient bank area even if ownership changes.

Some workgroup members questioned whether the current forest management provisions are working or if they need to be revisited.

A more complete description of the workgroup's discussion is included in Appendix 1: Workgroup Meeting Minutes.

Appendix 1: Workgroup Meeting Minutes

Meeting Minutes
Monday, November 1, 2021

Workgroup to Review the Practice of Retiring Agricultural Land for the Generation of Nutrient Credits
DEQ Central Office, Third Floor Conference Room
1111 East Main Street, Richmond, Virginia

Members Present: Phil Abraham, Chris Boies, Evan Branosky, Casey Jensen, Lonnie Johnson, Adrienne Kotula, Terry Lasher, Justin Mackay-Smith, Samuel Markwith, Martha Moore, Jennifer Perkins, Kyle Shreve, Chris Swanson, Shannon Varner, and Brian Wagner.
Members Absent: T. J. Mascia.
Other Attendees: None.
DEQ Staff Attendees: Jeff Steers, Melanie Davenport, Allan Brockenbrough, Brandon Bull, Tyler Monteith, Sara Felker, Derick Winn, Lindsey Paisley, and Gary Graham.

The meeting convened at 9:05 a.m. The meeting adjourned at 2:11 p.m.
A quorum of the workgroup members was present for this meeting.

1. Introductions [Jeff Steers, DEQ]. Mr. Steers welcomed the workgroup members, had the members and attending staff introduce themselves, reviewed the general building facilities with the members, and reviewed the agenda for the meeting (Attachment 1).

2. Meeting Objectives [Jeff Steers, DEQ]. Mr. Steers presented the members with the mandate for the Workgroup (from 2021 Acts of Assembly, Special Session I, Chapter 552, Item 377, paragraph O, HB1800, Attachment 2) explained it, and characterized the purpose of the workgroup meeting as a "listening session."

3. Current Practice [Jeff Steers and Allan Brockenbrough, DEQ]. Mr. Steers and Mr. Brockenbrough reviewed the nutrient credit certification program with the workgroup and answered questions from the group about how the program works and the status of the program.

4. Around the table questions. [Jeff Steers, DEQ]. Mr. Steers solicited thoughts and additional questions on the program from the workgroup members.

    a. Initial questions and comments about the program raised by workgroup members included:

        i. What is the ratio of Agricultural land (Ag land) lost compared to Ag land created in Virginia?

ii. What is the amount of urban land created in Virginia over the same period?

iii. What is the amount of forest land created in Virginia over the same period?

iv. What factors account for the change?

v. How much Ag land is put into a permanent transaction (by type) and how much Ag land is lost strictly to land conversion for the purpose of generating nutrient credits?

vi. On a macro-level, what areas/counties bear the most disproportionate share of Ag land conversion for the purpose of generating nutrient credits (e.g. Loudoun, Fauquier, and Clarke counties?).

vii. What do other states do concerning generating nutrient credits through land conversion that results in retiring Ag land? Answer: Virginia's program is unique in many respects, but looking at other states' programs (e.g., MD and PA) would be valuable.

viii. How will Virginia make sure that counties have access to these conservation easements?

ix. What type of localities benefit from the availability of nutrient credits that are generated by land conversion that results in retiring Ag land compared to the type of localities where the credits are generated.

b. The workgroup was asked, "Does the practice of retiring agricultural land for the generation of nutrient credits have an impact on agricultural sustainability, farmland retention, farmland preservation, or functions of the nutrient exchange in the Virginia portion of the Chesapeake Bay watershed and its sub-watersheds?" Responses included:

i. This question boils down to a landowner's right to do what the owner wants to with the land, and who has the authority to make that decision for them.

ii. Retirement of a large proportion of Ag land in a locality can adversely affect the locality. Can localities restrict nutrient banks (e.g., by passing local ordinances) from selling credits outside the same locality where they are generated?

iii. The Virginia Stormwater Management Program (VSMP) is driving the need to create and use nutrient credits, not the Chesapeake Bay restoration efforts. Local development is driving demand for nutrient

credits in order the meet local VSMP requirements. Retirement of Ag land and similar programs generate those necessary nutrient credits. The nutrient credit exchange is necessary for economic development and reaching goals for stream restoration.

iv. Refined Chesapeake Bay modelling has, and subsequent updates to the nutrient credit certification program, generally speaking, have decreased the amount of nutrient credits that can be generated from land conversion compared to the amount of nutrient credits that previously could have been generated form the same land conversion.

v. Achievement of goals for the Chesapeake Bay and localities are not mutually exclusive.

vi. Would there be advantages to adapting the program to land owned vs. leased? What about retiring the whole farm or just part of the farm?

vii. There is a need for more complete data in order to evaluate overall Ag land retention. Right now, there is no centralized source for this data. DEQ can request additional information on program applications in the future once the information needs are known.

viii. Some members felt that there are many benefits to maintaining or expanding the program (e.g., generating credits makes development possible where it might not be feasible otherwise, and conversion of marginally productive land or less economically productive land helps supplement income for the owners).

ix. The program has slowed tremendously in recent years. More people are leaning toward generating credits from stream restoration. There could be mechanisms to improve the stream restoration program.

x. Should certain localities be excluded from the program? Can the program be revised to allow localities to opt out (e.g., in such localities it would not be permitted to generate nutrient credits through land conversion practices)?

c. The workgroup was asked, "If the establishment of nutrient banks has an impact of farmland retention/availability, what recommendations do you suggest regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland?" Responses included:

i. Localities could be allowed to set a threshold for the percentage of Ag land eligible for land conversion to generate nutrient credits, after which

the locality could be allowed to opt out of the program (e.g., the practice of generating nutrient credits via land conversion would not be allowed in that locality).

ii. Marginally productive land could be identified through specific criteria and then retirement of that land incentivized for the generation of credits over prime productive land.

iii. The service territory for high-demand development areas could be expanded so that there is less pressure for conversion of large areas in adjacent localities.

iv. Make it possible for developers within a high-demand development area to trade credits within other developers in that area to improve efficient use of the credits and take pressure off areas generating new credits.

v. Create incentives to prioritize stream restoration over land conversion as a means to generate nutrient credits, such as streamlining the restoration process, improved onsite monitoring, and preconstruction approval of credits.

vi. Not all farmland being retired is prime farmland, and "prime" should be defined.

vii. Any legislation produced to change this program needs to equitable (e.g., taking into account the needs of developers for nutrient credits, the needs of farmers, and the needs of localities), meaningful, and sustainable.

viii. This program is only one of many programs causing a reduction of agricultural land. All of those programs should also be evaluated before making major changes to this program.

ix. Revise the Code so that credits may be acquired from the adjacent 8-digit HUC only if none are available in the same 8-digit HUC as the development. This would impact existing banks (unless they are grandfathered).

x. Limit credit purchases to the county in which the development is occurring.

xi. Apply a credit ratio so that developers making purchases from more distant banks have to acquire additional credits.

d. The workgroup was asked, "In situations where land is converted to forestland to generate nutrient credits, what protections are in the nutrient credit trading

regulation to ensure the forestland is managed under a forestry plan and/or noxious weed or invasive species are controlled." Responses included:

i. In Ag land retirement projects, what protections are provided in regulation to ensure that the forest management part of the project controls invasive species and noxious weeds and brush?

ii. Are the current forest management provisions working or do they need to be revisited?

iii. Existing regulations of the Nutrient Trading Program require that woody invasive species be controlled, mechanically or chemically, if they impact more than 5% of the project's acreage.

iv. Existing regulations require that a qualified professional develop a land management plan that addresses invasive species control, forest management, and statements that timber harvesting and thinning will adhere to best management practices set forth by Department of Forestry's Water Quality Guide and any other applicable requirements.

v. Existing regulations require 10 years of monitoring of reforestation projects and every property has a Declaration of Restrictions recorded that outlines the land management requirements and timber harvesting guidelines that apply to the nutrient bank area even if ownership changes.

e. Additional thoughts from the members:

i. Some members suggested that using Local Zoning or local ordinances as a means to restrict where land conversion projects occur to generate nutrient credits is not the way to go.

ii. Some members suggested that since the nutrient credit program is market-driven, any changes to the program through legislation will dramatically affect the program, and unforeseen consequences are possible.

iii. Some members felt that providing incentives was not the answer.

5. Next Steps [Jeff Steers, DEQ].

a. DEQ will write a report to submit to the General Assembly summarizing the discussions made by the workgroup.

b. DEQ will distribute copies of the DRAFT meeting minutes and (later) a link to DEQ's final report to the members.

c. No future meetings are scheduled.

Attachments:

1. Agenda.
2. Legislative mandate handout.

Attachment 1

Agenda

Virginia Department of Environmental Quality
Workgroup to Review the Practice of Retiring Agricultural Land for the Generation of Nutrient Credits
Meeting Agenda
Monday, November 1, 2021
Start Time: 9:00 A.M

Location: Bank of America Building, 1111 East Main Street, Richmond, Virginia
3rd Floor Conference Room

1. Introductions:

    - Include brief description of your background and why this issue is important to you

2. Meeting Objectives:

    - Item 377.O of the Commonwealth's budget from the 2021 Special Session requires DEQ to conduct a study on the conversion of farmland to nutrient banks.

3. Current practice of conversion of agricultural land for nutrient credit banking:

4. Around the Table Questions:

    a. *Does the practice of retiring agricultural land for the generation of nutrient credits have an impact on agricultural sustainability, farmland retention, farmland preservation, or functions of the nutrient credit exchange in the Virginia portion of the Chesapeake Bay watershed and its subwatersheds? If yes, describe the impact.*

    b. *If the establishment of nutrient banks has an impact on farmland retention/availability, what recommendations do you suggest regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland?*

    c. *In situations where land is converted to forestland to generate nutrient credits, what protections are in the nutrient credit trading regulations to ensure the forestland is managed under a forestry management plan and/or noxious weed or invasive species are controlled.*

5. Next Steps:

NOTE: All attendees will be expected to wear face coverings

NOTE: Agency Contact: Lindsey – Lindsey.paisley@deq.virginia.gov

Attachment 2

Review the Practice of Retiring Agricultural Land for the Generation of Nutrient Credits

"O. The Department of Environmental Quality, in consultation with the Department of Agriculture and Consumer Services and the Department of Forestry, shall establish a workgroup to review the practice of retiring agricultural land for the generation of nutrient credits and determine its impact on agricultural sustainability, farmland retention, farmland preservation, and functions of the nutrient credit exchange in the Virginia portion of the Chesapeake Bay watershed and its subwatersheds. If it is determined that there is impact on farmland retention/availability, the report should include recommendations regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland. If the land for nutrient credits is converted to forestland, the workgroup should identify what protections are in the nutrient credit trading regulations to ensure the forestland is managed under a forestry management plan and/or noxious weed or invasive species are controlled. The review shall be completed and provided to the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources, the Senate Committee on Agriculture, Conservation, and Natural Resources and the Virginia delegation of the Chesapeake Bay Commission by December 1, 2021. The workgroup shall include representatives of the Virginia Agribusiness Council, Virginia Farm Bureau, the Chesapeake Bay Commission, Virginia Cooperative Extension, the Virginia Department of Transportation, Home Builders Association of Virginia, Virginia Association for Commercial Real Estate, representatives from local Soil and Water Conservation Districts, representatives of local governments, local economic development officials, and other stakeholders deemed appropriate by the Department."

Explanation: (This amendment directs the creation of a multi-agency workgroup to review the practice of retiring agricultural land for the generation of nutrient credits and determine its impact on agricultural sustainability, farmland retention, farmland preservation, and functions of the nutrient credit exchange in the Virginia portion of the Chesapeake Bay watershed and its subwatersheds.)

Appendix D: Presentation to Workgroup

Nonpoint Source Nutrient Trading

Discussion

Sara Felker
Nonpoint Source Nutrient Trading Coordinator
Virginia Department of Environmental Quality
July 7, 2022

Workgroup Charge

Letter from Del. Ware:

[The previous] workgroup did not identify recommendations but did begin the process of generating ideas and identified additional information needs…The suggestion was made…that DEQ and that workgroup continue to examine those issues, including those raised by HB 1283.

Previous workgroup held on November 1, 2021

DEQ

Discussion Questions

1. To what extent are nutrients being generated through the conversion of important, prime, or unique farmland?
2. What are the potential impacts of restricting the generation of credits on any parcel of important, prime, or unique farmland acquired for generating credit?
3. What would the effect be of requiring credit purchases from the same HUC, if available, before looking at adjacent HUCs?
4. Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority to reduce the loss of important, prime, or unique farmland?

DEQ

Introduction to NPS Nutrient Trading

- **Nonpoint source nutrient credits** are nutrient reductions, certified by DEQ, and are expressed in pounds of phosphorous, nitrogen, or sediment.
- Nonpoint source nutrient credits may be generated through a variety of practices, including land conversion and stream restoration.
- **Land conversion** is the practice of permanently converting land, such as cropland, to a land use that generates less nutrient runoff, such as forestland.

Introduction to NPS Nutrient Trading

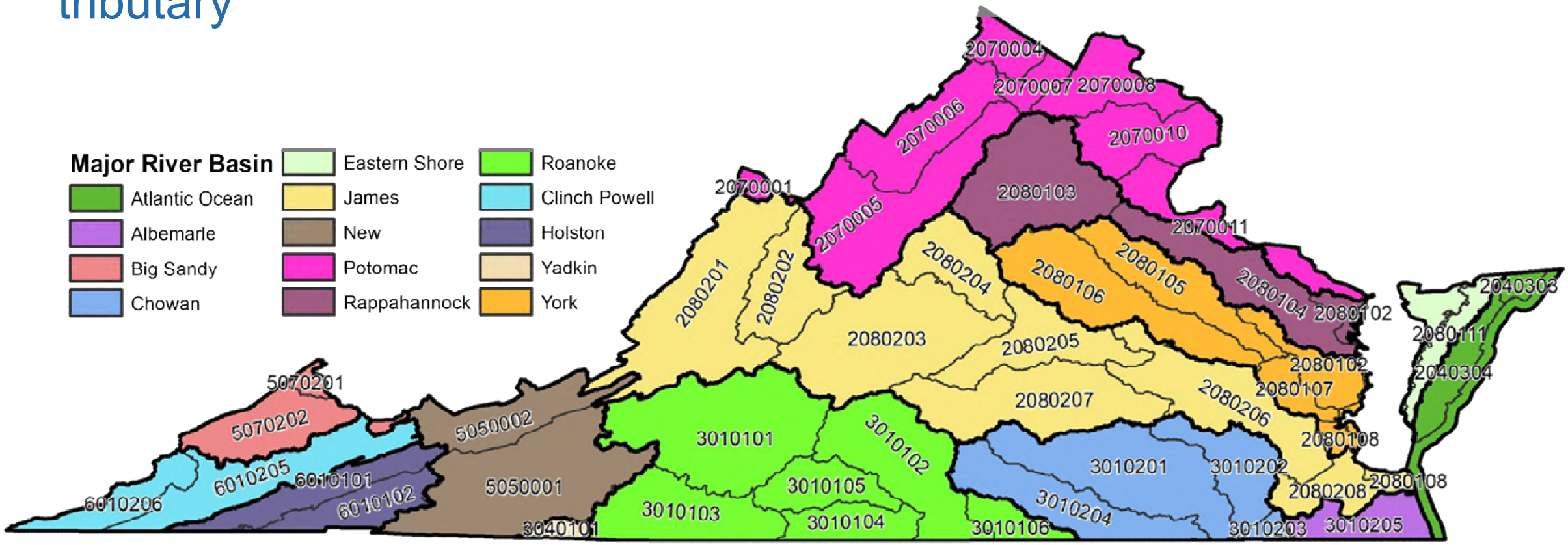
- Nutrient credits generated from land conversion depends on the pre- and post-conversion land uses.
- **Pre-conversion land use is based on 2005 in CB watershed and 2009 elsewhere.**
- The credits generated per acre was updated in March 2020 and generally reduced the number of credits generated.

"…[W]hat protections are in the nutrient credit trading regulation to ensure the forestland is managed under a forestry plan and/or noxious weeds or invasive species are controlled."

- Woody invasives must be under 5%; chemical and physical treatment allowed
- Forest management plan
- 10 years of monitoring
- Declaration of Restrictions (DOR) recorded on property that outlines management and timber harvesting guidelines
- Timber harvesting must follow DOF best management practices
- Concerns that herbaceous weeds are not addressed and forest management plans not being followed

Service Areas

Prior to 2021, same or adjacent 8-digit HUC within the same tributary

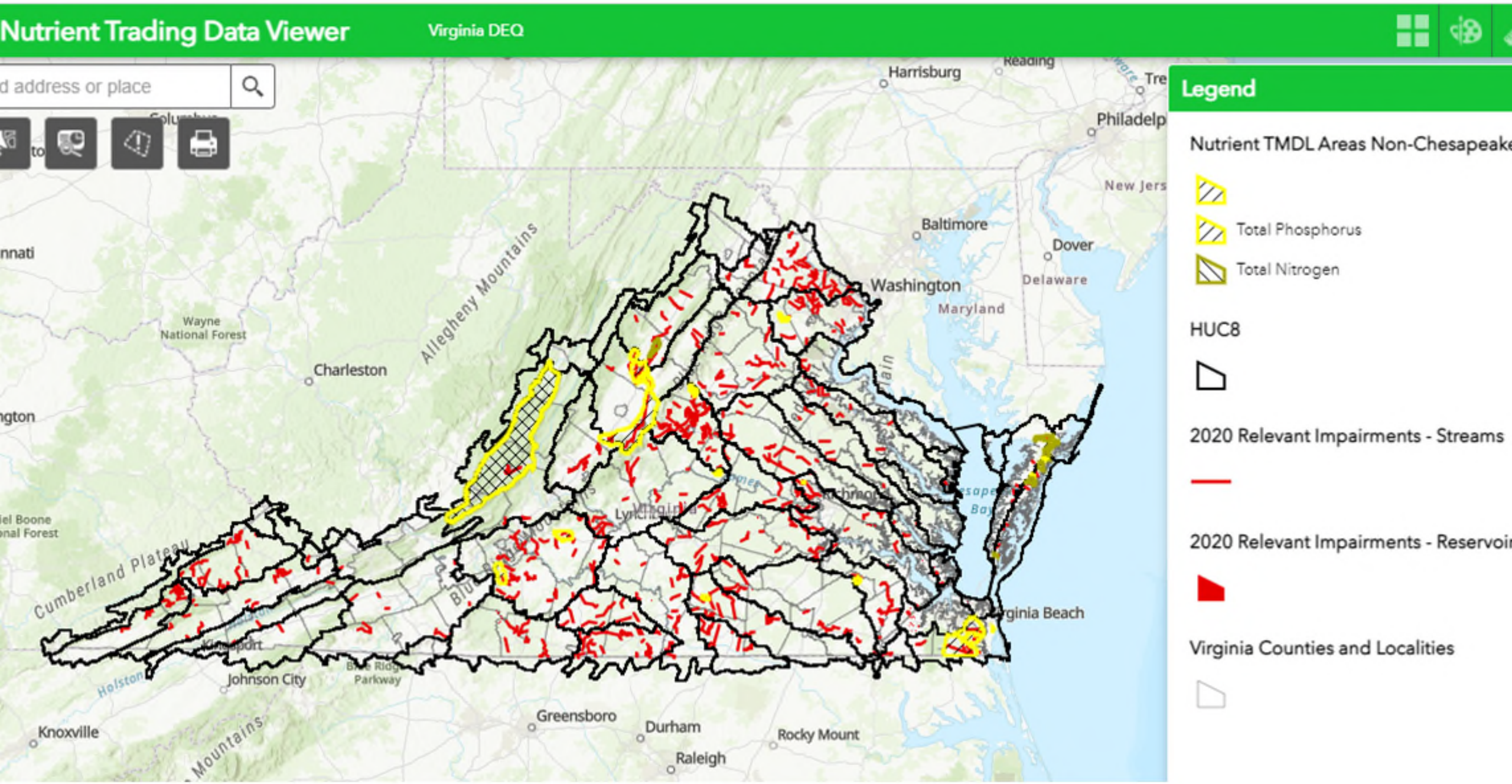


DEQ

Service Areas

- Regulations (9VAC25-900-91) became effective March 2021:
  - Projects in a local nutrient TMDL area **must** purchase from upstream
  - Projects that drain to **waters impaired for dissolved oxygen, benthic community, chlorophyll-a, or nutrients but with no approved local TMDL**, must follow the hierarchy when purchasing credits:
    a. **Upstream**
    b. **12-digit HUC**
    c. **10-digit HUC**,
    d. **8-digit HUC**,
    e. **adjacent 8-digit HUC**
    f. Within the **same tributary**.
- Others can still purchase from same or adjacent
- All credits must be purchased from within the same tributary

DEQ


Nutrient Trading Data Viewer
Virginia DEQ
d address or place
Harrisburg
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Delaware
Washington
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Wayne
National Forest
Charleston
Allegheny Mountains
Cumberland Plateau
Johnson City
Knoxville
Greensboro
Durham
Raleigh
Rocky Mount
Virginia Beach
Legend
Nutrient TMDL Areas Non-Chesapeake
Total Phosphorus
Total Nitrogen
HUC8
2020 Relevant Impairments - Streams
2020 Relevant Impairments - Reservoi
Virginia Counties and Localities

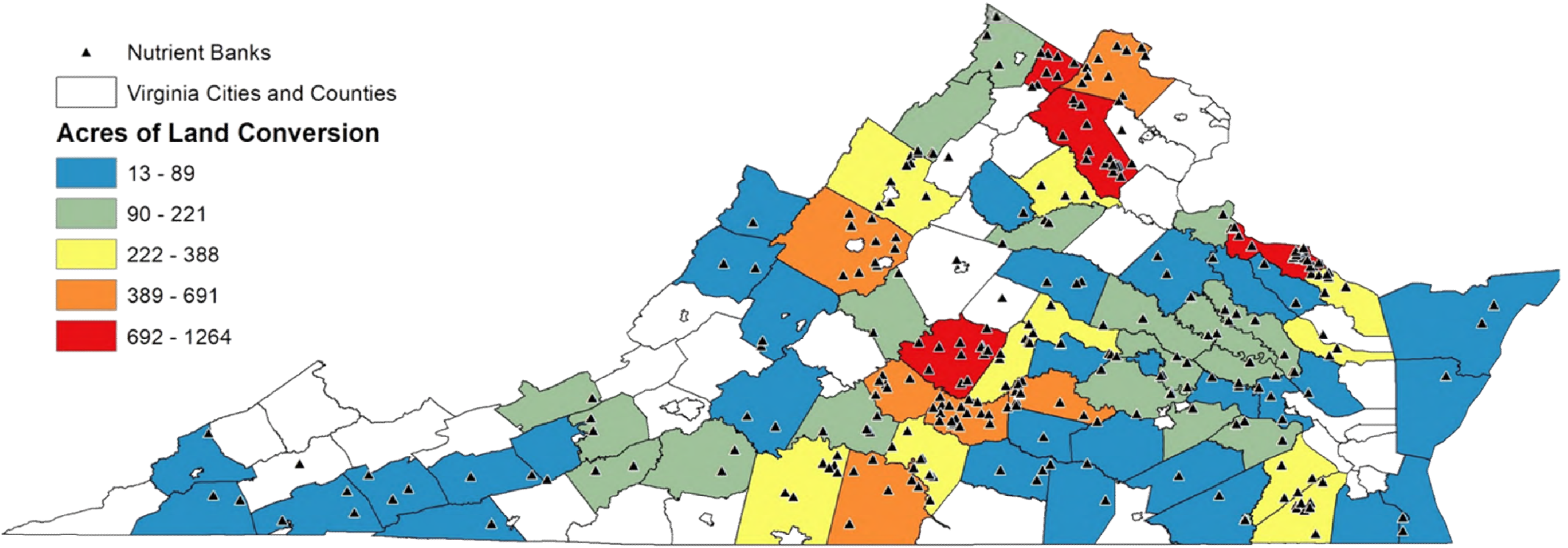
DEQ

“Does the practice of retiring agricultural land for the generation of nutrient credits have an impact on agricultural sustainability, farmland retention, farmland preservation, or functions of the nutrient exchange in the Virginia portion of the Chesapeake Bay watershed and its subwatersheds?”

- Retirement of a large proportion of agricultural land within a locality adversely affects that locality
- NPS nutrient credits are being used to by development to satisfy water quality requirements of the Virginia Stormwater Management program and necessary for economic development
- Recent changes to the nutrient program have greatly reduced the amount of nonpoint source nutrient credits that can be generated from land conversion practices compared to what was previously allowed
- Because of program changes there are fewer land conversion projects now than in the past and there are now more stream restoration projects
- There is a need for **more complete data** to evaluate agricultural land retention overall and the relative impact of the trading program

DEQ

Land Converted for NPS Nutrient Trading by County



DEQ

“If the establishment of nutrient banks has an impact on farmland retention/availability, what recommendations do you suggest regarding how the nutrient credit trading regulations and/or underlying statutory authority should be changed to help reduce the loss of prime farmland?”

- Localities could set limits for amount of land eligible for conversion
- Allow localities to opt out of all nutrient banks or only land conversion
- Limit the generation of credits to marginal agricultural land or otherwise incentivize conversion of these lands
- Expand the service area from which credits can be acquired in high development areas to relieve pressure on adjacent localities
- **Prioritize purchases from the same 8-digit HUC**
- Restrict the use of credits to within the same locality they are generated
- Incentivize non-land conversion projects (e.g., stream restorations)

DEQ

HB 1283: Prohibits land conversion on certain parcels

Regulations adopted shall…[**Prohibit] the certification of credits** generated from activities that include the conversion for offset generation of any parcel of **important, prime, or unique farmland that was acquired for the purpose** of generating nutrient credits. For purposes of this subdivision, "important farmland," "prime farmland," and "unique farmland" mean the same as those terms are defined in subsection C of § 3.2-205

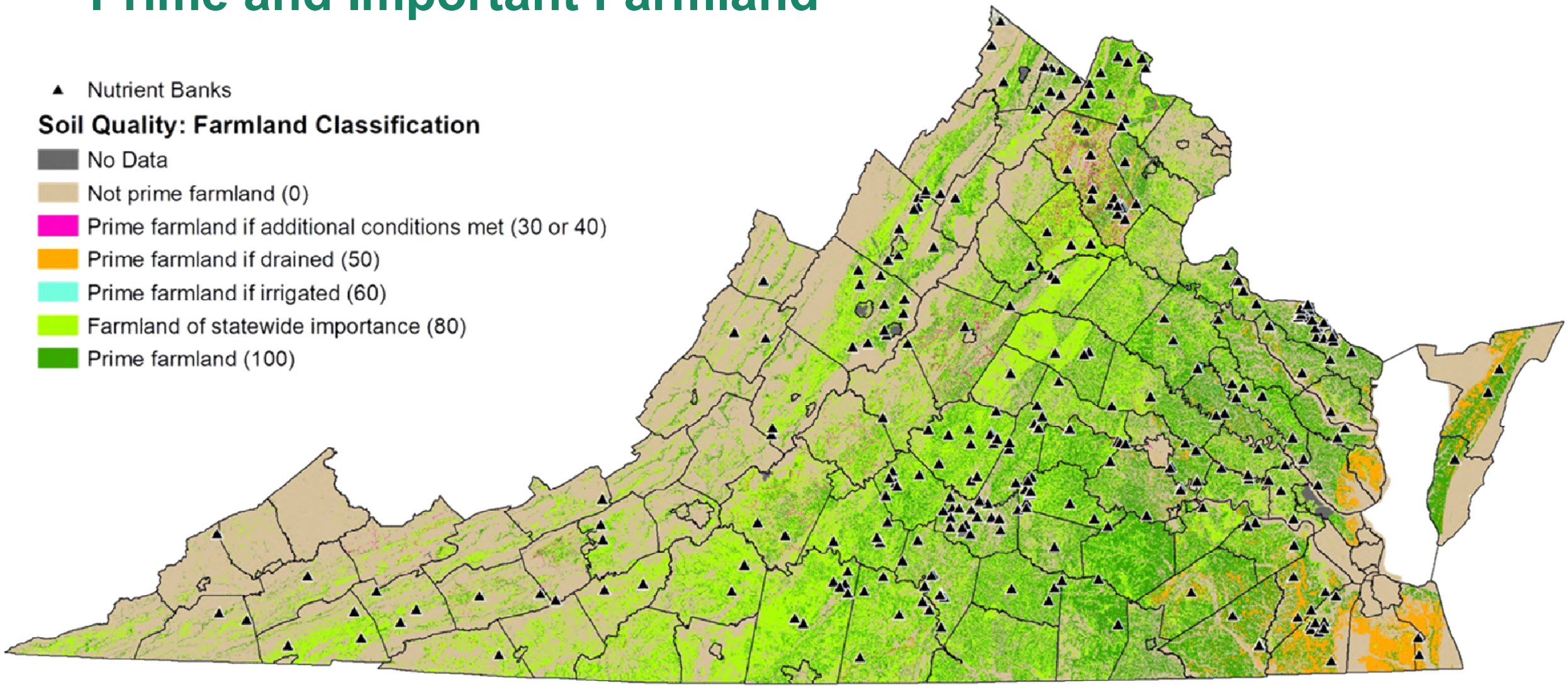
DEQ

Prime and Important Farmland

- **Important farmland** is land that is of statewide or local importance for the production of food, feed, fiber, forage, nursery, oilseed, or other agricultural crops
- **Prime farmland** is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, nursery, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion
- **Unique farmland** is land other than prime farmland that is used for production of specific high-value food and fiber crops; it has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops

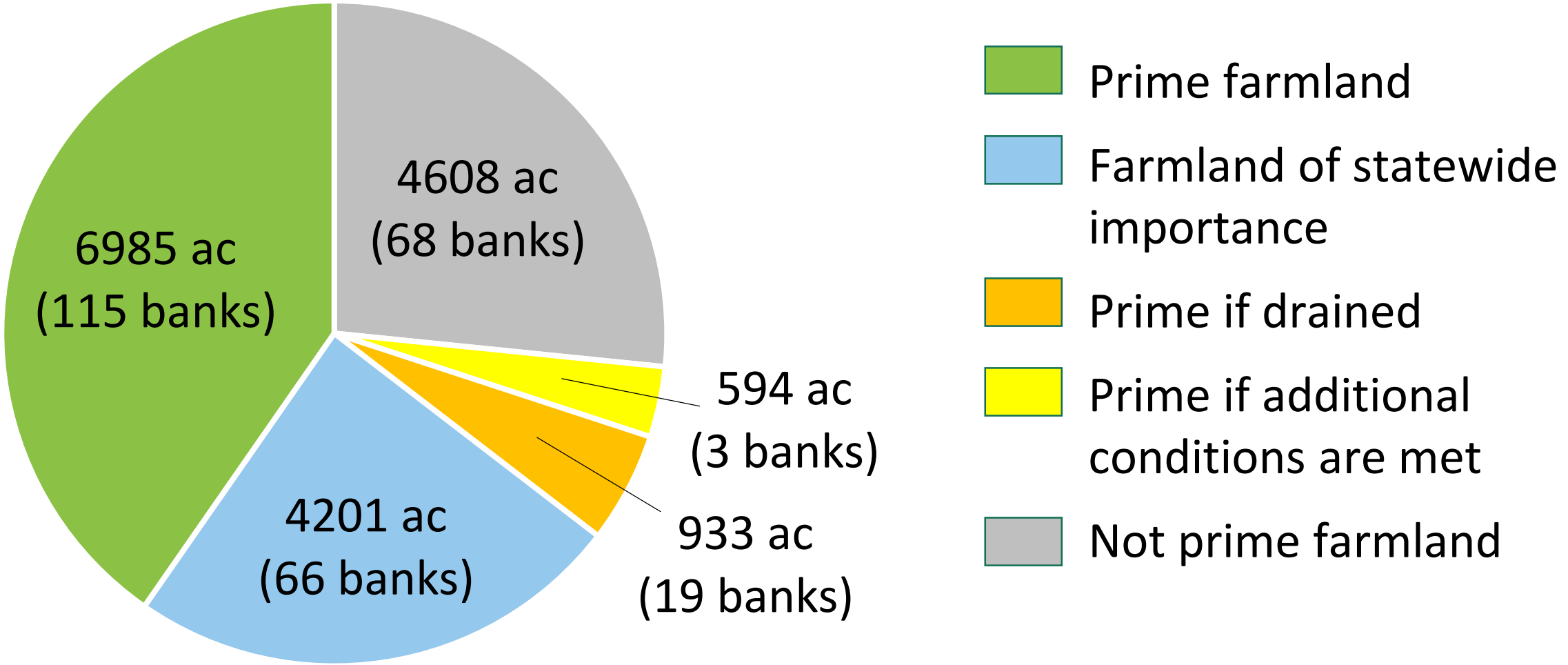
DEQ

Prime and Important Farmland



Data source: Virginia Natural Heritage Program; Natural Resources Conservation Service (2015 model)

Acres of Converted Lands and Farmland Classification of NPS Nutrient Banks



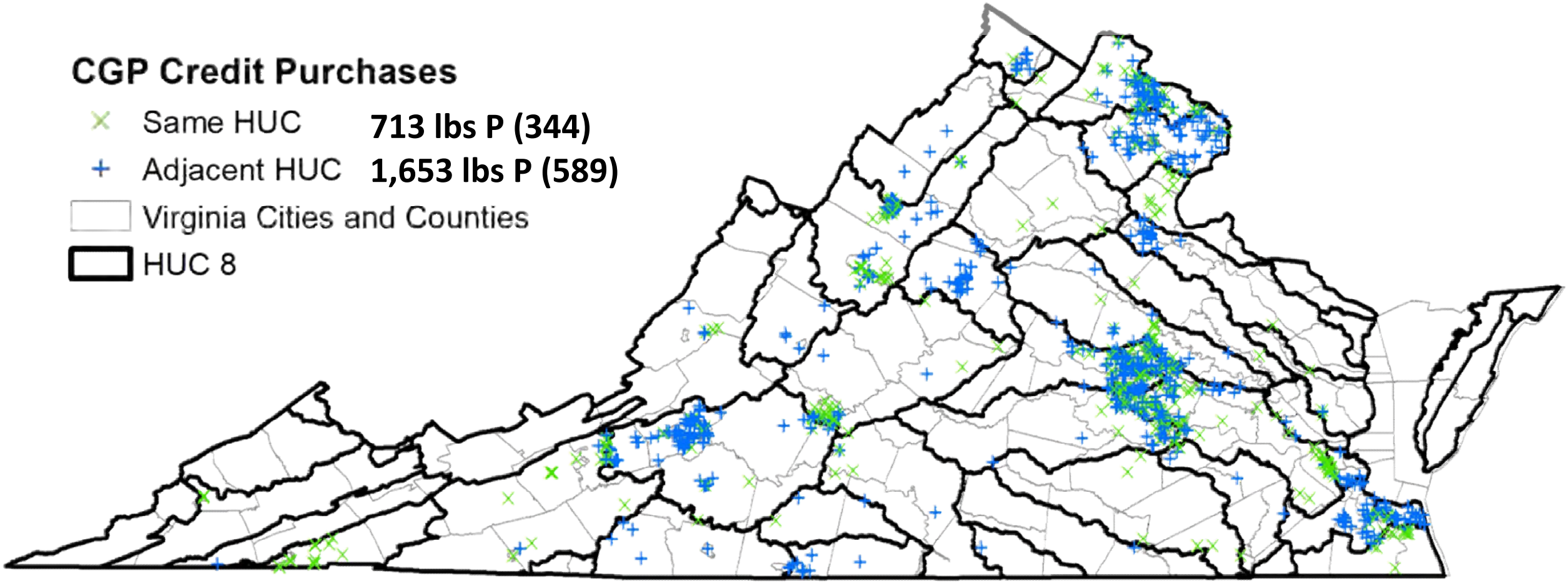
DEQ

HB 1283: Prioritizes purchases within the same 8-digit HUC

Nutrient credits used pursuant to subsection B shall be **generated in the same HUC as the permitted site** except as otherwise limited in subsection C. **Nutrient credits outside the same HUC may only be used if it is determined by the VSMP authority that no credits are available within the same HUC** when the VSMP authority accepts the final site design. In such cases, and subject to other limitations imposed in this section, credits available within (i) an adjacent HUC or (ii) the same tributary, if no credits are available within an adjacent HUC, may be used. In no case shall credits from another tributary be used.

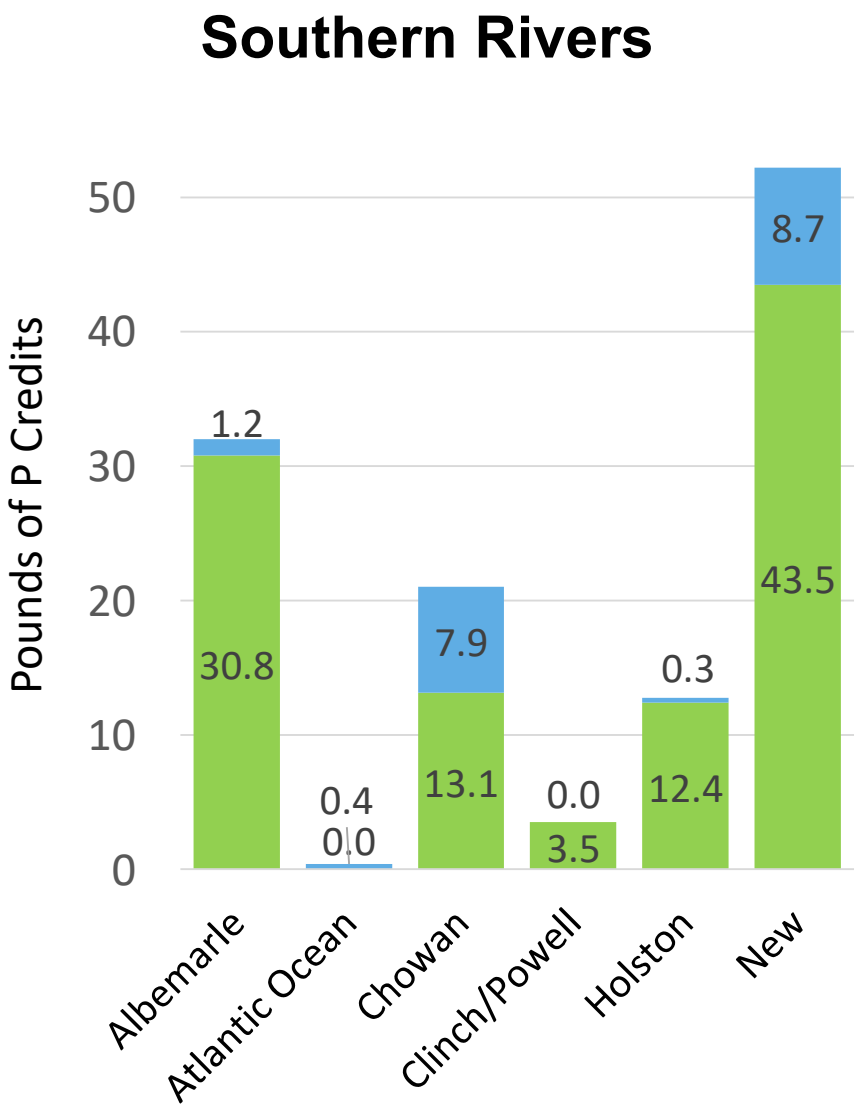
DEQ

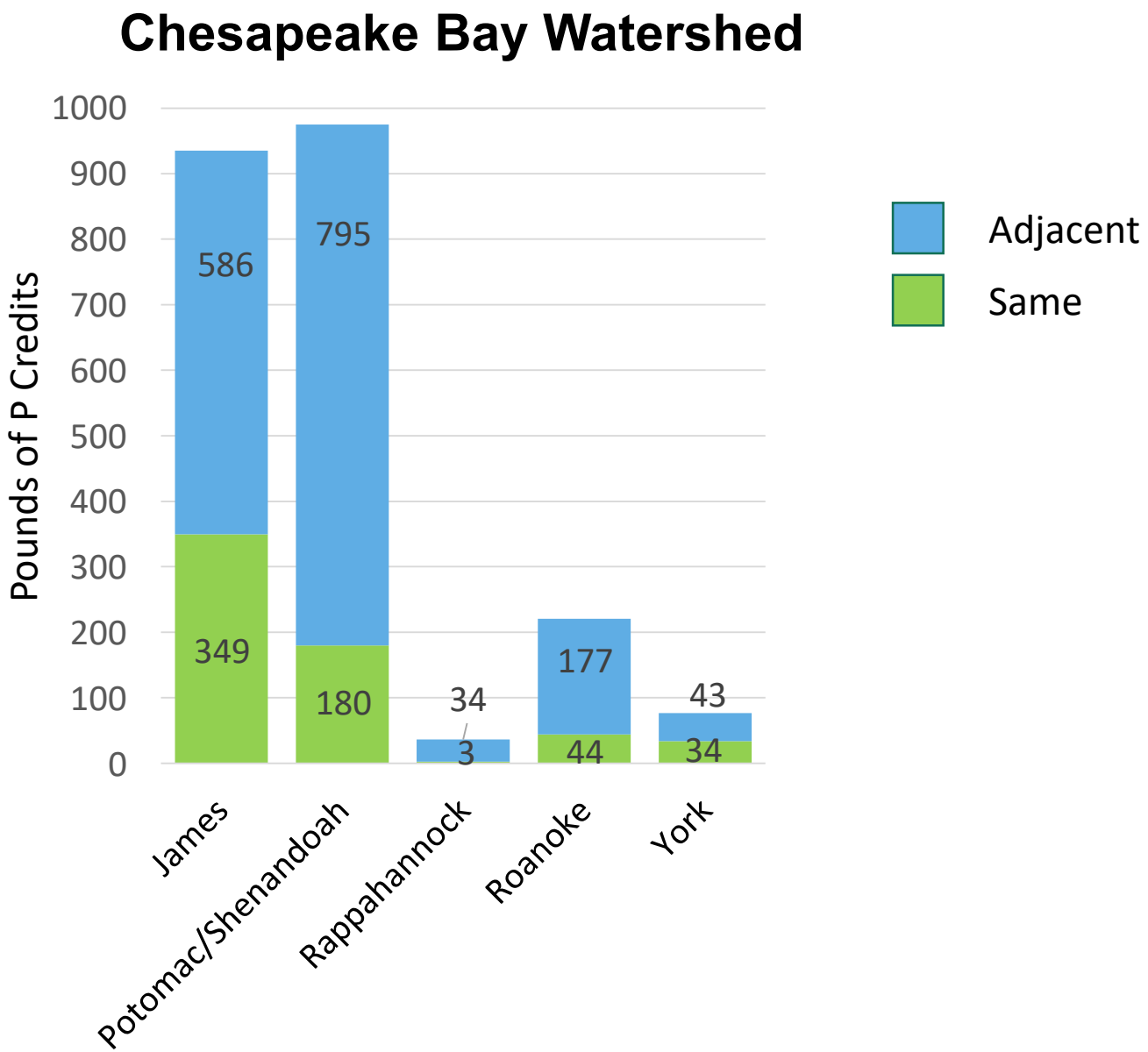
CGP Credit Purchases since 2014 (933 transactions)



DEQ

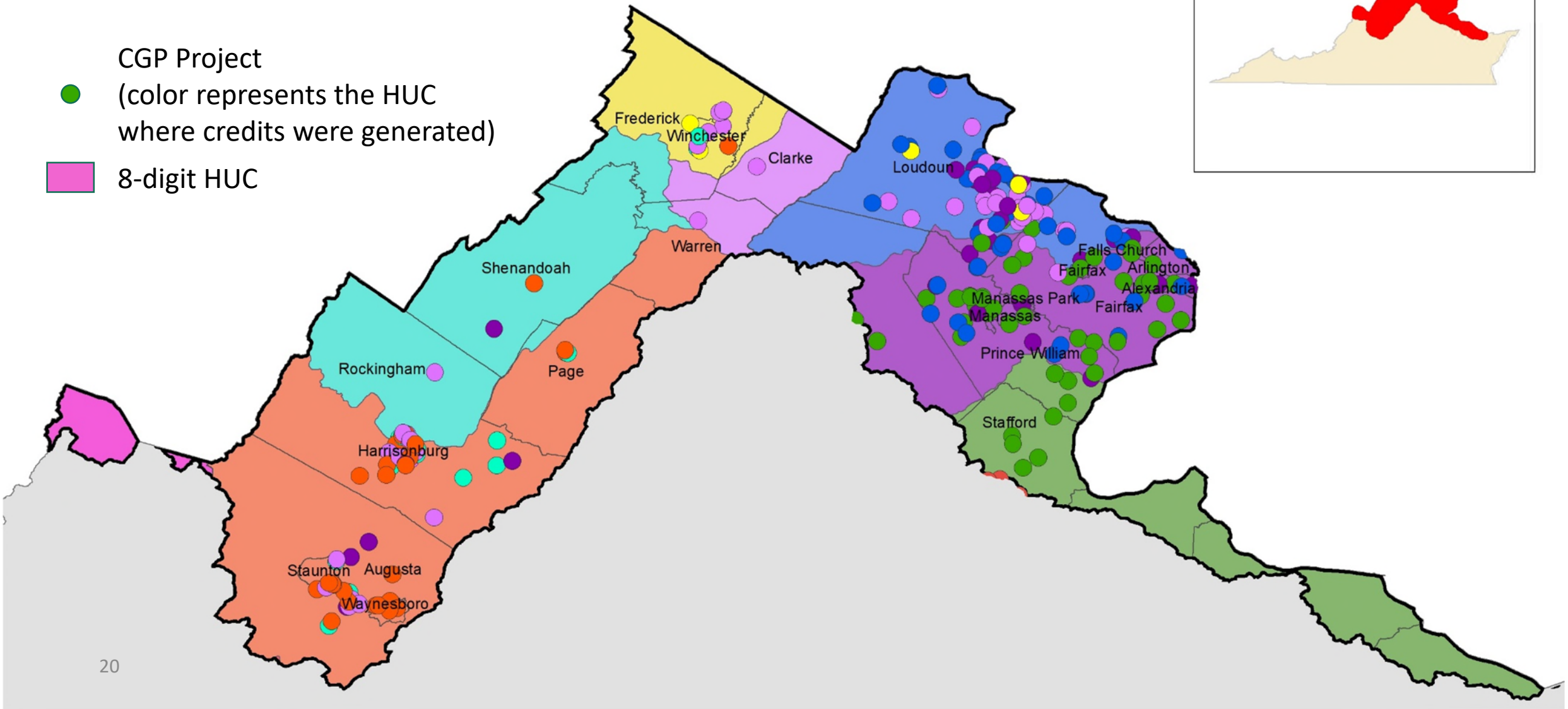
CGP Credit Purchases – Same or Adjacent HUC



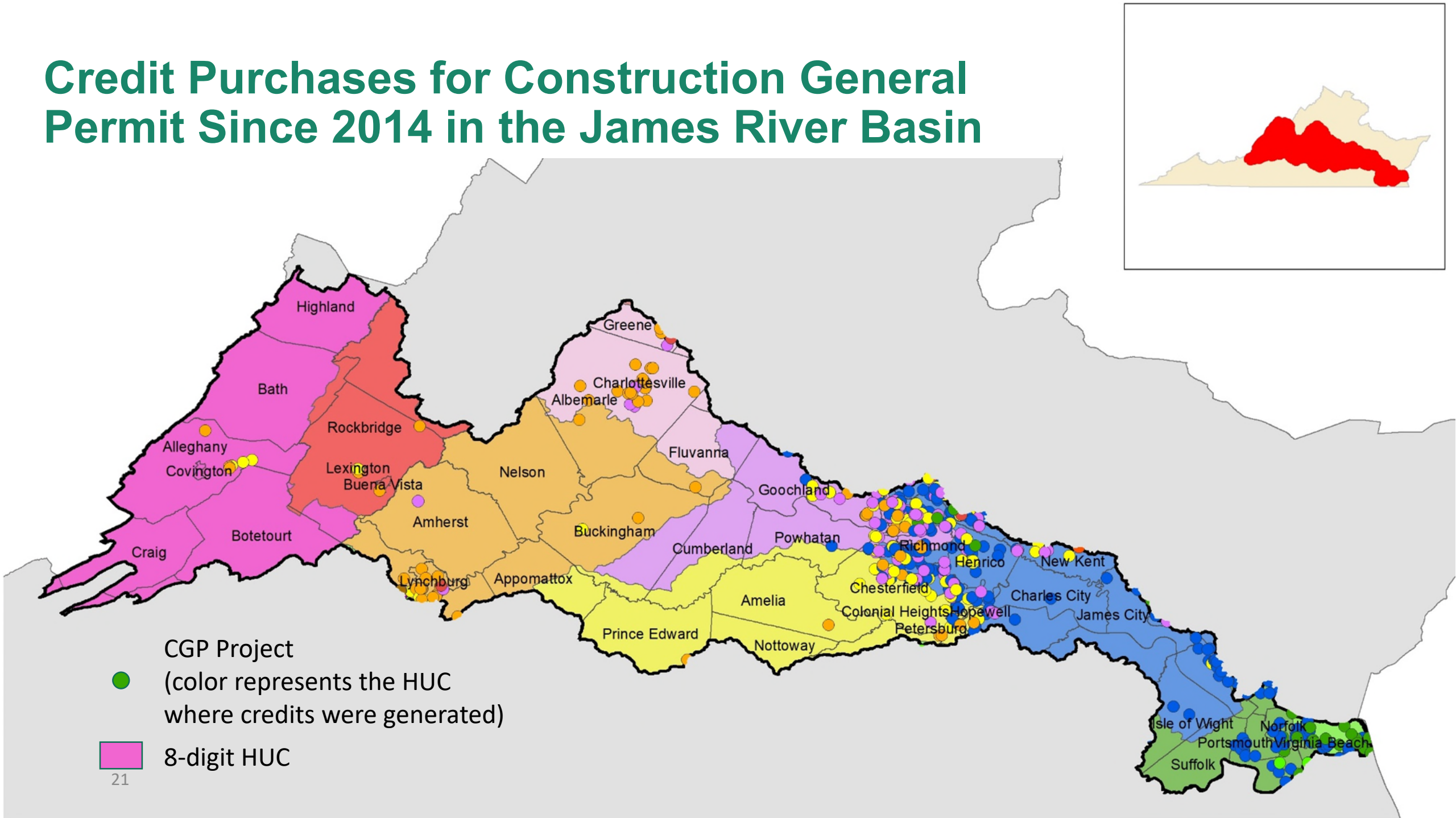


DEQ

Credit Purchases for Construction General Permit Since 2014 in the Potomac River Basin



Credit Purchases for Construction General Permit Since 2014 in the James River Basin



Discussion Questions

1. To what extent are nutrients being generated through the conversion of important, prime, or unique farmland?
2. What are the potential impacts of restricting the generation of credits on any parcel of important, prime, or unique farmland acquired for generating credit?
3. What would the effect be of requiring credit purchases from the same HUC, if available, before looking at adjacent HUCs?
4. Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority to reduce the loss of important, prime, or unique farmland?

Appendix E: Workgroup Meeting Minutes

Meeting Minutes
Thursday, July 7, 2022

Workgroup to Study Issues Related to Mitigation and Nutrient Credit Programs
DEQ Central Office, Third Floor Conference Room
1111 East Main Street, Richmond, Virginia

Members Present: Phil Abraham, Steven Barrs, Chris Boies, Andrew Clark, , Robert Condrey, Jeff Corbin, John Foote, Brent Fults, Kathy Hoverman, Casey Jensen, Dave Jordan, Mark Killgore, Terry Lasher, Patrick Link (T.J. Mascia and Jennifer Van Houten's alternate), Justin Mackay-Smith, Amy Martin, Serena McClain, Martha Moore, Kelby Morgan, Lisa Ochsenhirt (Justin Curtis's alternate), Tim Owen, Bobby Proutt, Jeanne Richardson, Nikki Rovner, Peggy Sanner, Kyle Shreve, Bill Street, Chris Swanson, Shannon Varner, Brian Wagner, Alan Weaver

Members Absent: Sara Aman, George Bryant, Howard Epstein, Greg Garman, Kirk Havens, Rene Hypes, Adrienne Kotula, Samuel Markwith, Chris Miller, Evan Ocheltree, Randy Owen, Jennifer Perkins, Fritz Schneider, Jeff Waldon

Other Attendees: Zach Jacobs, Karen Johnson, Zach LeMaste, Jon Roller

DEQ Staff Attendees: Brandon Bull, Melanie Davenport, Dave Davis, Sara Felker, Angela Jenkins, Tyler Monteith, Mike Rolband, Hannah Schul, Sarah Woodford

The meeting convened at 9:00 AM. The meeting adjourned at 4:45 PM.

1) Welcome from DEQ Director [Mike Rolband, DEQ]: Mr. Rolband welcomed the workgroup members and thanked them for their participation. He provided an overview of the General Assembly's workgroup directives.

2) Introductions [Angela Jenkins, DEQ]: Ms. Jenkins had the Workgroup members and attending DEQ staff introduce themselves with their respective affiliations. She also reviewed building facilities information and emergency exit procedures.

Workgroup Directive #1 – Supply and Demand for Mitigation Credits

3) Presentation – "Supply and Demand for Mitigation Credits" [Sarah Woodford, DEQ]: Ms. Woodford presented on the current supply and demand for mitigation credits in Virginia based on data from DEQ's CEDS database, the U.S. Army Corps of Engineers' (Corps) Regulatory Banking and In-Lieu Fee Tracking System (RIBITS) database, and in-lieu fee mitigation provider annual reports. Several requests and comments were received during Ms. Woodford's presentation:

    a. Request for graphs depicting the non-tidal wetland demand trend over the last 10 years by river basin

b. The supply presented for "Future Mitigation Credits" are skewed by future mitigation bank phases from approved mitigation banks that will never be built. Also skewed by potential mitigation credits in RIBITS not being updated to reflect as-built mitigation credits after construction.
c. Many older mitigation banks have no requirement to report mitigation credit sales in RIBITS, which skews demand data
d. Large-scale transportation projects skew demand data, making it hard to gauge an annual average demand
e. 3rd Party Mitigation Providers (Sponsors) have no way to indicate or track reserved credits per basin. There is too large a legal liability to regulatory agencies to track reserved credits (in RIBITS, particularly).
f. Wetland and stream mitigation credit demand are likely higher because the numbers presented may not account for all Permittee Responsible Mitigation that occurred.

4) Around the Table Questions [Angela Jenkins, DEQ]: Ms. Jenkins solicited thoughts and questions based upon the following questions:

What is the current and projected demand for wetland and stream mitigation credits by public and private entities?

What are your recommendations for legislative and regulatory changes to increase the supply of wetland and stream mitigation credits and reduce volatility in the price of mitigation credits?

Questions and comments raised by the workgroup members and DEQ staff included:

a. How can the time it takes to release credits be tracked? Answer: DEQ's forthcoming Permit Enhancement and Evaluation Platform (PEEP) may track this time period
b. RIBITS does not accurately portray mitigation credit availability.
    i. Mitigation credit reservation is not tracked.
    ii. RIBITS operates off the best information available.
    iii. Would the mitigation banking community be willing to deduct or show reserved mitigation credits for a more accurate picture?
        1) Sponsors not willing because reserved credit sales are not guaranteed yet
        2) Several other members indicated general hesitancy to share reserved mitigation credit information
        3) Corps indicated reserved mitigation credit information will not be tracked in RIBITS, too large of a legal liability for the regulatory agency.
        4) Future phases may never be built
c. Economic factors of supply for Sponsors include funding the mitigation bank upfront and not seeing a return on investment until mitigation credits are released
d. How can mitigation banks receive mitigation credit releases sooner?
    i. Answer: The Corps' Regulatory Guidance Letter (RGL) 19-01 allows for accelerated mitigation credit releases. These accelerated releases have been implemented in the Potomac River watershed so far. Pricing in the Potomac allows Sponsors to absorb the cost of required financial assurance mechanisms.

e. Discussion of potential ways to increase supply.
    i. Industrial sites such as Superfund sites to convert to wetlands
    ii. Need different ways to generate mitigation credits because running out of land
    iii. There is competition with nutrient banking
    iv. Expand Geographic Service Areas so watersheds with higher demand can purchase mitigation credits from further away?
        1) Goal is to restore ecological functions and services near where the impacts occur as a basic regulatory concept
f. Potential development of a commodity market
    i. Improve system to be more efficient and transparent
    ii. Need a system to provide mitigation credit availability information to permittees and sponsors
    iii. Sponsors provide mitigation credit availability letters to permittees, but permittees are not bound and can buy mitigation credits from another bank or sponsor
        1) Could Sponsors make mitigation credit availability letters contractual?
        2) Some Sponsors have expiration dates on letters, some don't.
g. Potential development of a public/private partnership mitigation credit information platform
    i. High number of permittees
    ii. Could it be required or be voluntary?
    iii. Could show permittees real time mitigation credit information
    iv. Could be created and driven by sponsors
h. Land availability is a huge issue
    i. No longer 100+ acre sites available, now smaller acre sites
    ii. Need to find ways to lower costs to make smaller sites viable
    iii. Demand is increasing
i. Propose other ways to generate mitigation credits?
    i. Rare, Threatened, and Endangered Species Adjustment Factors available according to the Unified Stream Methodology (USM) for stream mitigation credits.
    ii. Also discussed by Interagency Review Team for wetland mitigation
j. Can the long-term release of mitigation credits be shortened?
    i. Sponsors would see return on investment sooner, more economically feasible
    ii. Abbreviated release schedule?
    iii. If all mitigation credits are released, regulatory agencies have no leverage if there are performance or non-compliance issues, except for financial assurance mechanisms
k. Financial assurance (FA) mechanisms
    i. Basing the FA on the cost of replacement mitigation credits is too high in high demand basins
    ii. If a project is meeting performance, why are financial assurances needed?

iii. How big of a problem is mitigation bank failure? Looking at historical data of closed mitigation banks, in how many years did the mitigation banks meet 100% performance?
iv. FA money could be spent on ecological improvements instead
v. Sponsors take on full liability
vi. DEQ's obligation is to the statute of no net loss

l. Reducing stream and wetland buffer width requirements, as a way to increase mitigation credit supply
i. Discussed at June 2022 3rd Party Mitigation Providers Meeting hosted by DEQ and the Corps
ii. Reduced buffer is an easier sell to land owners, could open up more site opportunities
iii. Nutrient banks only require 35 feet
iv. Buffers in valleys can be tight

<u>Workgroup Directive #2 – Incentivizing Dam Removal Projects in Virginia</u>

5) Presentation – "Incentivizing Dam Removal Projects" [Sarah Woodford, DEQ]: Ms. Woodford presented on Geographic Service Areas for wetland and stream mitigation according to the current Code of Virginia. She presented maps of wetland and stream mitigation river watersheds, the physiographic provinces of Virginia, and the Hydrologic Unit Code map of Virginia. Example Service Area maps in the James River and Potomac River watersheds were presented.

6) Around the Table Questions [Angela Jenkins, DEQ]:

What methods are in place or could be developed for promoting the removal of obsolete dams and significant river obstructions by the private sector that maximize the input of private capital and minimize the need for public funding to facilitate the removal?

What are your recommendations regarding the extent to which there is a scientific basis from a water quality and fish benefit perspective to expand existing service area limitations for mitigation credits generated by the removal of obsolete dams and significant river obstructions?

What are the potential impacts for local and Chesapeake Bay water quality, ecological services, and fisheries as a result of the removal of such obsolete dams and significant river obstructions?

What innovative dam removal partnerships and incentives are used in other states?

Questions and comments raised by the Workgroup members and DEQ staff included:

a. Original proposed legislation from Sponsor of the proposed South Anna River at Ashland Mill Dam Mitigation Bank (AMD) seeking different service area for large-scale dam removal projects generating stream mitigation credits.

i. AMD is a high priority dam removal within the Chesapeake Bay watershed, according to several major ranking systems for dam removal projects.
ii. AMD is located in a high supply, low demand watershed (York River)
iii. Proposed bill would allow dam removal projects on a 4th order or higher stream to have the Service Area as currently allowable by the Code (York River) as well as the adjacent river watersheds (James River and Rappahannock River) upstream from the Chesapeake Bay to the first significant impediment to fish passage. Permittees in the adjacent river watersheds could use up to 75% stream mitigation credits from the AMD mitigation bank to cover mitigation requirements. The remaining 25% would need to be obtained from a mitigation bank in the river watershed of the impact. Permittees would be have to buy 1.5 times the number of mitigation credits otherwise required by their permits.

b. Department of Wildlife Resources (DWR) supports dam removal for ecological benefits to anadromous fish, including American eel and shad
c. Does dam removal in the York River watershed enhance all stream functions in the Rappahannock or James Rivers?
    i. Does not satisfy no net loss
    ii. Adding adjacent watershed has overall benefit to Chesapeake Bay (ecological benefits, not physical)
    iii. Research shows that most fish return to their stream of origin, but about 6% may stray into adjacent river watersheds.
d. Allowing expanded Service Areas for dam removal alone is unfair to other wetland and stream mitigation Sponsors. Dam removal should follow the rules all Sponsors follow.
e. All trading programs need to protect local watersheds as well as the Chesapeake Bay. If the Service Area is expanded in one program, would that lead to expansion in other areas?
f. Science supports dam removal as providing more ecological uplift than a local, traditional stream restoration project. Lentic ecosystem to lotic ecosystem.
g. To attract private funds for dam removal, could consider public/private partnership to use available federal infrastructure money
h. Landowner permission is a large hurdle for dam removal. Need cooperation/permission and incentives for removal. Dam owner education across agencies could be beneficial
i. DCR Dam Safety Program options for obsolete dam owners include lowering the dam, removing it, or bringing it to code
j. Is there research showing dam removal has been successful for anadromous fish?
    i. DWR cited research on shad from the Virginia Institute for Marine Science indicating removal provides a small population recovery
    ii. Dam removal means no restriction to potential habitat
k. Dam removal results in thermal impacts, sedimentation downstream, buffer stabilization
l. Incentives for dam removal?
    i. Use public money for removal, private money to monitor, and a partnership for long term management
    ii. Need financial incentives for dam owners

iii. One current incentive is through mitigation crediting
iv. Regulatory agencies have less flexibility to incentivize within trading programs

m. What is the proposed monitoring duration for dam removal?
    i. Answer: Ten years is proposed for the AMD bank with renegotiation after 5 years
n. Species banking was discussed
    i. For mitigation banking, tie back to no net loss of stream functions for permanent stream impacts. Rare, Threatened, and Endangered Species mitigation credits are available within USM.
    ii. Other species credits were discussed.
    iii. Potential for anadromous fish passage impacts in other programs to use AMD mitigation credits as compensation for these projects?
o. Site protection impossible on a large river
    i. Too many landowners
    ii. Huge land area
    iii. Potential for another dam to be put in upstream in the future? Agencies provide checks to keep from happening

<u>Workgroup Directive #3 – Nonpoint Source Nutrient Trading Service Areas and the Conversion of Agricultural Lands</u>

7) Presentation – "Introduction to Nonpoint Source Nutrient Trading Service Areas and the Conversion of Agricultural Lands" [Sara Felker, DEQ]: Ms. Felker presented data on the nonpoint source nutrient trading program, including bank locations, acreage by county, and information on the use of credits by 8-Digit HUC.

8) Around the Table Questions [Angela Jenkins, DEQ]:

To what extent are nutrients being generated through the conversion of important, prime, or unique farmland?

Questions and comments raised by the Workgroup members and DEQ staff included:

a. An ask was made to compare acreages of unique, prime, and important farmland to acreages of converted acres under the NPS trading program by overlaying the conversion bank areas with the mapped areas of unique, prime, and important agricultural lands. Further analysis will require better maps of bank conversion areas that bank sponsors may be able to provide.
b. One workgroup member noted a current mapping effort to identify converted agricultural land, prime farmland, and important farmland throughout the state that could be of use to the workgroup.
c. One workgroup member noted that 36% of the parcels converted for nutrient credits in Clarke County were considered prime, important, or unique farmland, compared with 24% of the county itself considered prime, important, or unique farmland.

d. Several members expressed their anecdotal experience is that less valuable farmland is typically converted.
e. Others in the group felt that the analysis of this historical data is not helpful for the future direction of the program due to revised land conversion rates and general shift away from land conversion activities under the program.
f. Several members, including representatives from Clarke County, voiced concerns that a disproportionate amount of prime, important, or unique acres of agricultural land are being converted under the nutrient trading program. They expressed a desire to remain an agricultural community and believe that land use decisions in northern Virginia are negatively impacting the retention of farmland in adjacent communities. Members were also concerned that a future supply shortage of nutrient credits could once again make land conversion activities viable in the county again even with the revised nutrient crediting rates.

What are the potential impacts of restricting the generation of credits on any parcel of important, prime, or unique farmland acquired for generating credit?"

a. The group expressed general concern with attempting to have localities dictate whether they are allowed to convert agricultural land for generating nutrient credits under the program.
b. Questions were raised on whether this is an important discussion to have if it is not as economically advantageous to convert agricultural land under the programs revised land conversion nutrient crediting rates.
c. Several people requested finer-scale data on farmland classification.
d. The group questioned whether the language in the proposed amendment would also restrict the development of other stream restoration projects in rural counties.
e. Rather than a complete restriction, members proposed that there be a maximum percentage of an agricultural parcel for conversion.
f. Members referenced ranking data used by other governmental agencies to assess the relative importance of farmland for funding programs and suggested this data may be used for analyzing land conversion applications.

What would the effect be of requiring credit purchases from the same HUC, if available, before looking at adjacent HUCs?

a. The group asked if nutrient service areas could be expanded to allow areas of high development to purchase nutrient credits from a greater area.
b. A request was made that the program look into separating the Shenandoah and Potomac watersheds to be two separate tributaries as opposed to them being combined as they are now.
c. Members expressed concern on how this would impact existing nutrient banks that were established under the previous requirements.
d. There were questions about the usefulness of such restrictions given the impacts of recently enacted local water quality restrictions.

Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority to reduce the loss of important, prime, or unique farmland?

a. Incentivize other practices, such as wetlands restorations or targeting the conversion of pastureland/sub-prime agricultural land, to shift the focus away from prime, important, or unique farmland? Shoreline restorations were also mentioned as a viable alternative. Members suggested a "multiplier" be included to increase or reduce the number of nutrient credits to generate, similar to the Unified Stream Methodology mitigation credit methodology discussed in an earlier discussion. Others voiced their opinion that this shift was already occurring and did not need to be further incentivized.
b. Is it possible to place limitations on agricultural property purchases when the intent is to enroll the property as a nutrient bank? Would this just shift the business model to "easement" agreements where the existing farmer maintains ownership to avoid the requirement?
c. Would increasing financial incentives to farmers to keep land in active agriculture prevent land use conversions?
d. Allow localities to make a finding that this program is hurting their economy and restrict the nutrient trading program. If a finding is made that a locality was disproportionately losing farmland, allow nutrient credit purchasers to use nutrient credits from an expanded service area and/or restrict nutrient credits from the impacted locality.
e. Some members of the group expressed a possibility of giving localities more authority on property uses. Some of the ideas included conditional use permits for all land activities or laws that allow localities to restrict nutrient bank creation. It was suggested that a Commonwealth attorney review the existing laws to determine whether localities could restrict nutrient bank creation under current law.

9) Next Steps

a. Next Workgroup meeting Monday, August 8, 2022
b. Draft meeting minutes will be distributed

Meeting Minutes
Monday, August 8, 2022

Workgroup to Study Issues Related to Mitigation and Nutrient Credit Programs
DEQ Central Office, Third Floor Conference Room
1111 East Main Street, Richmond, Virginia

Members Present: Chris Boies, Andrew Clark, Mike Collins (Jeff Waldon's alternate), Robert Condrey, Jeff Corbin, Justin Curtis, John Foote, Kathy Hoverman, James Hutzler, Rene Hypes, Casey Jensen, Dave Jordan, Adrienne Kotula, Terry Lasher, Patrick Link (T.J. Mascia & Jennifer Van Houten's alternate), Justin Mackay-Smith, Amy Martin, Martha Moore, Kelby Morgan, John Olenik (Chris Swanson's alternate), Erin Reilly (Bill Street's alternate), Jeanne Richardson, Nikki Rovner, Peggy Sanner, Kyle Shreve, Sarah Thomas (Phil Abraham's alternate), Shannon Varner, Alan Weaver, Charles Wilson

Members Absent: Sara Aman, Steven Barrs, George Bryant, Howard Epstein, Brent Fultz, Greg Garman, Kirk Havens, Mark Killgore, Samuel Markwith, Serena McClain, Chris Miller, Evan Ocheltree, Tim Owen, Randy Owen, Jennifer Perkins, Bobby Proutt, Fritz Schneider

Other Attendees: Cecilia Boyd, Jim Eisenhardt, Karen Johnson

DEQ Staff Attendees: Brandon Bull, Melanie Davenport, Dave Davis, Sara Felker, Tyler Monteith, Hannah Schul, Sarah Woodford

The meeting convened at 9:00 AM. The meeting adjourned at 4:15 PM.

1) Welcome from the Director of Water Permitting Division [Melanie Davenport, DEQ]: Ms. Davenport welcomed the workgroup members and thanked them for their participation in the second workgroup meeting.

2) Introductions [Melanie Davenport, DEQ]: Ms. Davenport had the workgroup members and attending DEQ staff introduce themselves with their respective affiliations. She also reviewed the building facilities information and emergency exit procedures.

Workgroup Directive #3 – Retiring Farmland for Nutrient Credits and Nutrient Service Area Revisions

3) Introduction [Sara Felker, DEQ] – Ms. Felker gave an overview of the content discussed at the previous workgroup meeting on July 7, 2022, as well as a reminder of the three workgroup directives the group was tasked with.

4) Around the Table Questions [Sara Felker, DEQ]:

   Questions and comments raised by the workgroup members and DEQ staff included:

   What are the potential impacts of restricting the generation of credits on any parcel of important, prime, or unique farmland acquired for generating credit?

a) Some members expressed concern that there is not yet enough data readily available to answer this question.
    i) HB 894 was mentioned, which should result in the creation of a map or repository of prime farmland in the Commonwealth led by the Virginia Department of Agricultural and Consumer Services (VDACS), with an initial report expected by December 1, 2022. Recommendations were also made regarding the importance of ground-truthing the data if limiting the inclusion of prime agricultural land in the nutrient trading program is being considered, while others were concerned with using this dataset as the basis for decisions without reviewing it first.
    ii) It was also recommended that a definition for prime agricultural lands be standardized across programs throughout the Commonwealth. HB 206 was referenced as a good basis, where "Prime Agricultural Soils" are defined as "Soils recognized as prime farmland by the US Department of Agriculture…" This was further defined as Class I and II soils. Others noted additional complications for how to categorize crop to hay land conversion activities, since the land would still remain in agricultural production. The group also noted that the designations for "Unique" and "Important" agricultural lands were too broad in definition and scale to be included for limiting land conversion activities.
b) Comments were made to make it clear that this workgroup should focus on land conversion activities. Incidental land conversion, including the 35-foot riparian buffer requirements for stream restoration practices, should not be considered as part of these discussions. HB 1283 was noted to focus on land conversion activities, but that this further clarification could be made.
c) Concerns were raised about what the potential effects of limiting prime agricultural land conversion activities could be on credit supply and credit prices.
d) In Maryland's program the state designates prime farmland based on site-specific evaluations. If determined that part of the property contains prime agricultural land then land conversion would be limited.
e) Various workgroup members expressed the following concerns: land conversion affects communities and the impacted localities should have additional authority to restrict enrollment in the program; property owners should be able to decide what they do on their own property; and there shouldn't be a government program incentivizing land conversion.

What would the effect be of requiring credit purchases from the same HUC, if available, before looking at adjacent HUCs?

a) A suggestion from the previous workgroup meeting to separate the Shenandoah and Potomac watersheds into separate tributaries was discussed. It was mentioned that the two are combined now to match the Virginia Pollutant Discharge Elimination System (VPDES) permit requirements and would require a change to § 62.1-44.15:35.
b) Concerns were raised for how the program would handle potential trade restrictions by HUC for banks that are already approved. It was recommended that banks be grandfathered to their current service areas.

Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority to reduce the loss of important, prime, or unique farmland?

a) Representatives from VDOT and the home builders association expressed concern that any change in market requirements would increase costs, which would be passed on to the public.

b) There were multiple questions about the ability of localities to implement their own permitting requirements for nutrient banks. Concern was expressed that localities cannot regulate nutrient trading without express direction from the legislature. Some were concerned that a statewide program could be changed by local ordinances while others expressed a desire for local regulation.
c) A recommendation was made to divide the workgroup members into the categories of agricultural conservationists, land developers, and the nutrient banking community in order to develop a set of recommendations from each group. This was recommended due to the varying viewpoints held by each group regarding the limiting of land conversion activities, and how those unique perspectives will limit the ability to reach consensus for the workgroup as a whole. The recommendations from each category can then be shared with the General Assembly.

5) The following items were tested for consensus:
   a) There should be a consistent definition of prime agricultural soils across programs for the purposes of mapping. Specifically "prime agricultural soils" should be defined as it is in HB206: "soils recognized as prime farmland by the U.D. Department of Agriculture…" (which refers to Class I and II soils).
      (1) Fully Support - 16
      (2) Do Not Fully Support But Do Not Oppose - 9
      (3) Opposed - 0
   b) Any legislation addressing land conversion for nutrient credit generation should be limited to agricultural to forest land conversion. Forest land conversion does not include stream restoration projects and associated buffers.
      (1) Fully Support - 14
      (2) Do Not Fully Support But Do Not Oppose - 6
      (3) Opposed - 0
   c) Restricting the conversion of prime agricultural soil lands to forest for the purpose of generating nutrient credits could: reduce supply and increase the price of nutrient credits, allow for the preservation of land with prime soils for non-silviculture agricultural use, and the impacts cannot be quantified until a prime agricultural soils map is created per HB 894.
      (1) Fully Support - 19
      (2) Do Not Fully Support But Do Not Oppose - 2
      (3) Opposed – 0

<u>Workgroup Directive #1 – Supply and Demand for Mitigation Credits</u>

6) Introduction [Sarah Woodford, DEQ] – Ms. Woodford gave an overview of the content discussed at the previous workgroup meeting on July 7, 2022, as well as a reminder of the workgroup directives the group was tasked with.

7) Ms. Woodford asked workgroup members whether they wanted DEQ to discuss the agenda attachments (graphs depicting historic mitigation credit demand and credit sales in Virginia). No workgroup members wanted to review the attachments.

8) Around the Table Questions [Sarah Woodford, DEQ]:

What is the current and projected demand for wetland and stream mitigation credits by public and private entities?

What are your recommendations for legislative and regulatory changes to increase the supply of wetland and stream mitigation credits and reduce volatility in the price of mitigation credits?

Questions and comments raised by the workgroup members and DEQ staff included:

a) The potential for a mitigation credit commodity market was discussed. DEQ staff stated that they met with Director Rolband, who is very interested in creating the commodity market. A stakeholders meeting may be established in the future, likely a year away.
b) Legislation was previously approved to expand service areas (2021) to increase competition and the number of banks, as well as expediting bank approvals. This legislation has led to a number of requests and approvals for service area expansions.
c) The previously proposed legislation (2022) would have removed the requirement to look for available mitigation credits within a Primary Service Area to serve impacts before going to available mitigation credits within a Secondary Service Area to serve impacts. One workgroup member mentioned that this does no good if there are no approved mitigation banks with credits available. DEQ questioned whether it was appropriate to remove this requirement, given that the change would be at odds with other permitting requirements for in-kind mitigation and guidance for "ecologically and environmentally preferable" mitigation options, which must take into account proximity of a given mitigation site to project impacts.
d) The Wetland and Stream Replacement Fund established under Code of Virginia was discussed. DEQ and U.S. Army Corps of Engineers (Corps) staff identified issues with the language of the Code that established the Fund, which directly conflicts with the Corps' and EPA's 2008 Final Mitigation Rule. Therefore, the Fund cannot be implemented without a change in the Code. Other concerns raised by DEQ staff included questions regarding who would implement the projects, avoiding conflict of interest, providing adequate funding or budget for program operation, and need for additional staff. One workgroup member stated that this seemed like a more long-term solution. Another workgroup member stated that DEQ may not want to prioritize this potential solution over other potential work and solutions to increase mitigation credit supply.
e) Regarding Mitigation Banking Instruments, workgroup members stated they support accelerated credit releases. They suggested decreasing buffer width requirements or increasing credit yields to make banks more feasible financially. Buffer width requirements were discussed at the June 2022 3rd Party Compensation Providers Meeting. This issue may also come up at the September 2022 3rd Party Mitigation Providers Meeting, where a new Mitigation Monitoring Report Template will also be presented to increase monitoring report review efficiency.
f) Workgroup members discussed increasing advance mitigation credits for the Virginia Aquatic Resources Trust Fund (an in-lieu fee mitigation program operated by The Nature Conservancy). DEQ discussed that this has been done several times over the last couple years, in river watersheds with high credit demand, and may be done again.

g) Workgroup members raised the idea of selling excess mitigation credits from projects. There are several ways that this does happen in the current mitigation program (i.e. permittee may utilized unused mitigation credits from another one of their permits, permittee may sell mitigation credits back to the mitigation bank or site). For the permittee to be able to sell them to another permittee specifically, there would need to be a commodity market established.
h) Turning mitigation credits from permanent to term credits was discussed. Several DEQ staff pointed out that Code of Virginia and Virginia Administrative Code state there must be permanent no net loss, and term credits would not be compatible with this statutory requirement.

<u>Workgroup Directive #2 – Incentivizing Dam Removal Projects in Virginia</u>

9) Introduction [Sarah Woodford, DEQ] – Ms. Woodford gave an overview of the content discussed at the previous workgroup meeting on July 7, 2022, as well as a reminder of the workgroup directives the group was tasked with.

10) Around the Table Questions [Sarah Woodford, DEQ]:

What methods are in place or could be developed for promoting the removal of obsolete dams and significant river obstructions by the private sector that maximize the input of private capital and minimize the need for public funding to facilitate the removal?

What are your recommendations regarding the extent to which there is a scientific basis from a water quality and fish benefit perspective to expand existing service area limitations for mitigation credits generated by the removal of obsolete dams and significant river obstructions?

What are the potential impacts for local and Chesapeake Bay water quality, ecological services, and fisheries as a result of the removal of such obsolete dams and significant river obstructions?

What innovative dam removal partnerships and incentives are used in other states?

a) One Workgroup member clarified that thermal impacts might be changed to "thermal changes" for dam removal projects, because the temperature changes are usually mostly beneficial. Additionally, workgroup members indicated that sedimentation may occur downstream with or without dams, and potential sedimentation issues during dam removal are usually short term.
b) The workgroup discussed the potential to expand the mitigation service area for 4th order or higher streams for dam removal projects generating stream mitigation credits. Several members spoke about how dam removal provides benefits to the entire river system, not just the removal location.
c) One workgroup member asked whether the Unified Stream Methodology (USM) calculation of compensation requirements currently takes into account the proximity to impacts, and requires more compensation if in an adjacent river watershed. DEQ answered that USM does not take into account adjacent river watersheds, however, there was a multiplier in the previously proposed legislation for dam removal projects that was intended to have that effect.

d) One workgroup member asked if there were incentives for dam removal projects through mitigation crediting. DEQ answered that the USM includes the ability to grant Adjustment Factors on a site specific basis, such as cattle exclusion, watershed preservation, and rare, threatened and endangered species protection. Other adjustment factors may be created. For example, adjustment factors for proposed dam removal projects have been discussed, including for RTE species, anadromous fish passage, priority dam removals, water quality, etc.

e) Regarding species credits (non-mitigation credits), DEQ staff raised the question as to who would require compensation for species impacts. Would a species banking program be under DEQ or the Department of Wildlife Resources (DWR)? Would DEQ have to change permitting based on Threatened and Endangered Species impacts, including Time of Year Restrictions? There is potential for new legislation for a species banking program. DWR would still adhere to a Time of Year Restriction for anadromous fish, to avoid impacts, so the potential demand for anadromous fish species credits may be low.

f) Existing examples of innovative dam removal partnerships were discussed, including:
    a. Example: The Bloede Dam Removal had partnerships with the Maryland Department of Transportation, National Oceanic and Atmospheric Administration (NOAA), American Rivers, Maryland Department of Natural Resources, etc.
    b. Federal government grant funds partnered with matching private funds, these projects have pro-rating of mitigation credits
    c. Agencies that have involved or implemented public/private partnerships for dam removal: the Federal Emergency Management Agency (FEMA), NOAA, and the Federal Energy Regulatory Commission (FERC)
    d. Natural Resources Damage Assessment (NRDA) process
    e. Agreements for fish passage on hydropower dams
    f. One workgroup member pointed out that these are not necessarily innovative, only current practice. Public/private partnerships are the current way to get dams removed.

g) Need for incentivizing dam removal included dam owner education regarding their liability for dams on their property

11) The following item was tested for consensus:

a) Dam removal provides ecological benefits within the river watershed where the dam is located and those benefits outweigh the potential ecological impacts.
    1) Fully Support - 19
    2) Do Not Fully Support But Do Not Oppose - 2
    3) Opposed – 0

<u>Next Steps</u>

a) Next Workgroup meeting Tuesday, August 30, 2022

b) Draft meeting minutes will be distributed

Meeting Minutes
Tuesday, August 30, 2022

Workgroup to Study Issues Related to Mitigation and Nutrient Credit Programs
DEQ Piedmont Regional Office, Training Room
4949-A Cox Road, Glen Allen, VA 23060

Members Present: Phil Abraham, Chris Boies, Andrew Clark, Jeff Corbin, Justin Curtis, Steven Gallagher (Kelby Morgan's alternate), Charles Hegberg (Jeff Waldon's alternate), Kathy Hoverman, James Hutzler, Rene Hypes, Casey Jensen, Dave Jordan, Mark Killgore, Adrienne Kotula, Terry Lasher, Justin Mackay-Smith, Martha Moore, Evan Ocheltree, Tim Owen, Jennifer Perkins, Bobby Proutt, Nikki Rovner, Peggy Sanner, Bill Street, Chris Swanson, Jessie Thomas-Blate (Serena McClain's Alternate), Shannon Varner, Brian Wagner, Alan Weaver.

Members Absent: Sara Aman, Steven Barrs, George Bryant, Robert Condrey, Brad Copenhaver, Howard Epstein, John Foote, Brent Fultz, Greg Garman, Kirk Havens, Heidi Hertz, Samuel Markwith, Amy Martin, T.J. Mascia, Chris Miller, Randy Owen, Jeanne Richardson, Fritz Schneider, Jennifer Van Houten, Charles Wilson

Other Attendees: Joe Lerch, Karen Johnson, Chris Moore, Steve Yob

DEQ Staff Attendees: Brandon Bull, Melanie Davenport, Dave Davis, Sara Felker, Tyler Monteith, Hannah Schul, Sarah Woodford

The meeting convened at 9:00 AM. The meeting adjourned at 3:45 PM.

Workgroup Directive #1 – Supply and Demand for Mitigation Credits

1) Mitigation Working document [Sarah Woodford, DEQ] – Ms. Woodford displayed the Mitigation Working document on the projector screen and the workgroup reviewed the workgroup directive questions and answers related to "Supply and Demand for Mitigation Credits" together. The intent of the Mitigation Working document is that it is DEQ staff's outline for writing the mitigation portions of the legislative report.

2) Questions and comments raised by the workgroup members and DEQ staff included:

    a. One workgroup member stated that large public works projects can skew mitigation credit demand similar to linear transportation projects.
    b. Regarding a platform for mitigation credit tracking, the workgroup discussed the importance of client and permit information remaining confidential on the platform.
    c. Demand is variable and can change quickly. One project can completely change mitigation credit availability in a watershed. Construction is often delayed when no mitigation credits are available.

d. The creation of a public system or platform for tracking real-time available mitigation credits is a future priority of DEQ Director Mike Rolband and may require its own workgroup.
e. Members requested that historical mitigation credit supply and demand data be included in the report to the legislature. One member requested the introduction of the document to provide information on the mitigation and nutrient programs as many legislators are unfamiliar with the programs. This also should note differences between the two programs, including differences in types of impacts, quantities, and land required for operation of the individual programs.
f. Legislators need to be aware that even if Virginia statute for mitigation changes, federal law for mitigation may remain the same, ending in no change in the mitigation program.
g. Regarding staffing, one workgroup member stated that there are efforts by an outside coalition aimed at increasing federal funding for the Corps to hire more regulatory staff positions on a nationwide scale.
h. Ms. Woodford [DEQ] informed the workgroup that a Memorandum of Agreement (MOA) is being drafted by the Corps, which may result in DEQ assuming lead responsibility for monitoring report coordination, review, and associated credit releases. If you have any questions regarding the MOA, please get in touch with Jeanne Richardson [Corps].
i. Several members who are mitigation bank sponsors stated that the changes to be brought about by the Corps staff changes and the potential MOA increases the likelihood that they will propose new mitigation banks in the future. They stated that this change would speed the release of credits that are already requested, increase the speed at which new credits are approved and released, and help address supply issues.
j. The workgroup noted that there could be current and future potential staff workload issues and the need for additional funding and positions at both the Corps and DEQ should be evaluated.
k. Dave Davis [DEQ] informed the workgroup of DEQ's current development of a DEQ State Surface Water Delineator certification program, two components of which would be a professional wetland delineator (PWD) certification from the Department of Professional & Occupational Regulations (DPOR), and successful completion of a Stream Identification training class. The purpose of this program is to reduce the time necessary to confirm the locations of waters regulated by DEQ. In summary, a DEQ-certified SSWD consultant will submit state waters delineations with a JPA, and VWP staff will accept those delineations as meeting the requirements for a VWP permit. This certification would allow for desktop delineation confirmations with periodic quality control checks by DEQ staff. It has not been determined whether the Corps will accept these confirmations.
l. The need for the state legislature to consider additional funding for all mitigation program state advisory agencies (Department of Environmental Quality, Marine Resources Commission, Department of Historic Resources, Department of Wildlife Resources, Department of Conservation and Recreation, Department of Forestry) was identified.

m. There was discussion of accelerated credit releases. Ms. Woodford clarified how the Corps' Regulatory Guidance Letter 19-01 does not require the Corps Districts to implement the practice. There was discussion of the financial assurances required in Virginia by the Corps and DEQ, and that accelerated credit releases have been limited to high mitigation credit demand watersheds, thus far. One member suggested accelerated mitigation credit releases be made available in all watersheds in Virginia, not just those in high demand.
n. The Corps and DEQ are able to adjust current guidance and practice to include alternative mitigation sites and practices, including modified buffer widths and smaller site approval, if deemed appropriate for the program. This also includes impoundment and dam removals. One member discussed how adjustment to current review of mitigation sites (i.e. buffers) may be viewed different than new types of alternative mitigation sites (i.e. Superfund sites), especially in the amount of time required to review the mitigation proposal.
o. One member said that financial assurance amounts for accelerated releases should be reevaluated. The Virginia statute is broad regarding financial assurances.
p. Ms. Woodford brought up a potential new solution, originating from DEQ staff. Credit availability letters are non-contractual, but DEQ could put back into VWP permits the requirement to list the mitigation bank or ILF name from which the permittee plans to purchase mitigation credits. This having the intended effect of strengthening the permittee's resolve to purchase from the named mitigation site. Many members noted that naming the specific mitigation bank from which mitigation credits will be purchased in permits is not a desirable practice, especially from a permitting efficiency standpoint because the permit would need to be modified for a change in that name.
q. The workgroup discussed options for excess mitigation credits from a given permit. Return of excess mitigation credits to the bank sponsor may not be the most desirable option, according to several members. It could be better to sell directly to another permittee. This would create difficulties in mitigation credit tracking. One member expressed concern that a third-party could "warehouse" credits in a given watershed, fix higher prices, and sell for profit in the future. Another member expressed concern with third-party resale, and that it may hinder DEQ's ability to ensure resources are protected with no net loss and in kind mitigation. Another member identified this as a potential issue to be brought up in the public platform workgroup discussed in "d."
r. The workgroup discussed that the Wetland and Stream Replacement Fund would still be an option for increasing the supply of mitigation credits, even if it is not the highest priority option. DEQ continues to have concerns regarding additional staffing and funding for this program, should it be approved by the Corps as an in-lieu fee mitigation program. The workgroup discussed that it should stay on this list, but recommend that the legislature look into required program structure, staffing, and additional funding requirements.

<u>Workgroup Directive #2 – Incentivizing Dam Removal Projects in Virginia</u>

3) Introduction [Sarah Woodford, DEQ] – Ms. Woodford displayed the Mitigation Working document. The intent of the Mitigation Working document is that it is DEQ staff's outline for writing the mitigation portions of the legislative report.

4) [Sarah Woodford, DEQ] The workgroup reviewed the first workgroup directive question and answers related to "Incentivizing Dam Removal Projects in Virginia" together.

What methods are in place or could be developed for promoting the removal of obsolete dams and significant river obstructions by the private sector that maximize the input of private capital and minimize the need for public funding to facilitate the removal?

Workgroup comments included:

a. One member mentioned the DCR Dam Safety Program as a program that incentivizes removal as an available option for obsolete dams.
b. Workgroup members discussed other workgroups or partners involved in discussion regarding barrier removal, namely the Virginia Community Flood Preparedness Fund, the Virginia Stream Barrier Removal Task Force, and the Chesapeake Bay Fish Passage Workgroup.
c. One member mentioned that grant programs always look favorably upon and encourage matching funds for barrier removal projects from partners like the private sector and state governments.
d. One member mentioned that it can be difficult for private and public partnerships to allow for mitigation credits to be sold for profit by the private sector.

5) [Sarah Woodford, DEQ] The workgroup reviewed the second workgroup directive question related to "Incentivizing Dam Removal Projects in Virginia" together.

What are your recommendations regarding the extent to which there is a scientific basis from a water quality and fish benefit perspective to expand existing service area limitations for mitigation credits generated by the removal of obsolete dams and significant river obstructions?

Workgroup comments and discussion included:

a. Workgroup members stated that fish passage was thoroughly discussed in the three meetings but water quality was not.
b. Several members questioned whether there is a scientific basis from a water quality perspective, especially in an adjacent river watershed. Challenging to prove there are no water quality impacts, if mitigation is accepted from adjacent river watersheds.
c. One member asked the group to consider not just fish benefits, but benefits to benthic macroinvertebrates and other non-fish aquatic life.
d. One member asked the definition of significant river obstruction.
e. One member wanted to know whether the department could consider actual benefits to adjacent river watersheds, on a project-by-project basis.
f. Several members asked what the "conditions" would be, in the second statement. DEQ staff replied that the appropriate conditions might be formulated by the workgroup, if there was general consensus on the second statement.

g. One member suggested that the department might try a test project in Virginia.

6) The following two statements were tested for consensus:

   a. There is a scientific basis from a water quality and fish benefit perspective to justify expanding existing service area limitations for mitigation credits generated by the removal of obsolete dams and significant river obstructions into adjacent river watershed boundaries.
      i. Strongly Agree - 8
      ii. Can Live With It - 11
      iii. Strongly Oppose – 7

   b. Provided appropriate conditions are established, there is a scientific basis from a water quality and fish benefit perspective to justify expanding existing service area limitations for mitigation credits generated by the removal of obsolete dams and significant river obstructions into adjacent river watershed boundaries.
      i. Strongly Agree - 9
      ii. Can Live With It - 13
      iii. Strongly Oppose – 4

<u>Workgroup Directive #3 - Retiring Farmland for Nutrient Credits and Nutrient Service Area Revisions</u>

7) Introduction [Sara Felker, DEQ] – Ms. Felker gave an overview of the content discussed at the previous workgroup meetings on July 7, 2022 and August 8, 2022, as well as a reminder of the three workgroup directives the workgroup was tasked with.

8) Around the Table Questions [Sara Felker, DEQ]:

   What are the potential impacts of restricting the generation of nutrient credits on any parcel of important, prime, or unique farmland acquired for generating credit?

   What would the effect be of requiring nutrient credit purchases from the same HUC, if available, before looking at adjacent HUCs?

   Are there other changes in the nutrient credit trading regulations and/or underlying statutory authority to reduce the loss of important, prime, or unique farmland?

   Questions and comments raised by the workgroup members and DEQ staff included:

   a. One member felt that the items that had been tested for consensus from the previous workgroup meeting were sufficient recommendations in the interim until the mapping effort for prime agricultural soils has been completed.

      i. Members from the workgroup tasked with developing the Prime Agricultural Soils data layer felt they were on track for their initial deadline of 12/1/22 to have at least some sort of map provided.

1. Preliminary results have shown that approximately 17% of open land in Virginia is has prime agricultural soils after land that's already developed and the DOF forestry layer have been removed.

b. One member reiterated the view that localities should be given the ability to set a cap of allowable land conversion activities on prime agricultural soils.

i. One member felt that allowing for localities to restrict land conversions on an individual basis was less restrictive than having a state wide ordinance that limits land conversion activities on prime agricultural soils.

c. While there was no consensus on creating geographic trading restrictions, the Workgroup indicated that there should not be trading restrictions between counties.

d. Representatives from groups that use nutrient credits, including homebuilders associations, expressed concern that the storm water program depends on the ability to use nutrient credits and any restrictions that limit supply will have a detrimental effect on development around the state. They requested any restrictions that reduce the supply of nutrient credits be balanced with access to additional nutrient credits, such as opening up the service area to include the entire tributary or state. Further concern was expressed that there would be even fewer nutrient credits available if the 0.41 lbs P/ac/yr requirement for the stormwater is lowered.

e. One member noted that the benefits and detriments of land conversion projects may be viewed subjectively by county residents and that it is important to remember that not everyone views them as a nuisance project. Many may feel that land conversions are a positive activity that brings a benefit to their county.

f. A question was raised regarding whether or not each nutrient bank is required to have a forestry management plan. DEQ noted that yes, every land conversion project and they are publicly available upon request.

g. One member noted that in her opinion landowners should be allowed to convert their agricultural land to forest if they want to. However, a government agency should not be further incentivizing land conversion activities on prime agricultural soils, particularly when it is being done to offset urban development in other localities. Others in the workgroup noted that other government programs also exist that promote agricultural land preservation and conservation.

h. One member brought up the idea of potentially allowing for the creation of a nutrient bank with statewide applicability, where a nutrient bank could provide nutrient credits to development projects that would otherwise be purchasing nutrient credits from an adjacent HUC that contains a high percentage of prime agricultural soils. Others felt that this is similar to expanding the service area to the entire tributary and wondered if the Local Water Quality Guidance in the Nutrient Trading Program would limit this.

i. A question was raised as to whether there was a way to quantify what the higher cost would be to developers should land conversion nutrient credits be limited to non-prime agricultural soils?

j. It was proposed that, as a compromise, localities could set a limit on land conversion within their locality, if service areas could be expanded to allow for purchases within the entire tributary.

k. A concern was also raised around what would happen if land was incorrectly labeled as containing "prime agricultural soils." Excluding this land unnecessarily from participating in the program via land conversion activities would limit a farmer's ability to profit from his land. While restrictions may not be desirable, if enacted, farmers, landowners and bankers should be afforded a mechanism to rectify any incorrect designations of "prime agricultural soils."
l. The workgroup asked about whether localities received notification of new nutrient banks. DEQ staffed answered that new applications are listed on the DEQ website but not sent out for public notice. Localities are alerted when a nutrient bank receives an approval and/or a nutrient credit release.
m. Members suggested that localities could have the opportunity to provide input while the nutrient bank application is being reviewed by DEQ. However, the legislature would need to change the law or regulation to allow DEQ to consider the impact to "prime agricultural soils" in order for it to be part of the review criteria and the goal is to limit land conversion activities on these lands.
n. Members discussed alternative ways for farmers to benefit from prime farmland instead of participating in the program. VDACS staff discussed the Farmland Preservation Fund, which is money given to localities to purchase development rights on private lands. Because funding has been low for this program, localities are not able to compete with the possible monetary benefits of participating in the nutrient trading program. Many in the workgroup suggested that increasing this fund and the ability of a locality to purchase easements to meet their goals.
    i. It was additionally noted that easements put in place by localities could include restrictions on participating in the nutrient trading program. Additional restrictions could also be put on private property transactions if the landowner legally implements that restriction prior to the sale or as a condition of the sale.

9) The following item was tested for consensus:

    a. The Commonwealth should increase funding of the Farmland Preservation Fund to incentivize conservation of prime farmland through local purchasing of development rights (PDR).
        i. Fully Support – 16
        ii. Partially Support – 6
        iii. Oppose – 0

<u>Next Steps</u>

a) Ms. Woodford requested comments be submitted no later than September 15th in writing.

b) Draft meeting minutes will be distributed.