Virginia Agricultural BMP Technical Advisory Committee
Central High School Cultural and Educational Center
Goochland, VA 23063
October 8, 2019
9:30 AM – 3:30 PM

TIME AND PLACE

The meeting of the Virginia Agricultural BMP Technical Advisory Committee convened at 9:30am on Tuesday, October 8, 2019 at the Central High School Cultural and Educational Center in Goochland, Virginia.

ATTENDANCE

Amanda Pennington, DCR
Darrell Marshall, VDACS
Kevin Dunn, Piedmont SWCD
Megen Dalton, Shenandoah SWCD
Sam Truban, Lord Fairfax SWCD
Steve Escobar, Virginia Horse Council
Ben Chester, DCR
Bob Waring, DCR
Stephanie Drzal, DCR
Amanda McCullen, Culpeper SWCD
Beck Stanley, Virginia Agribusiness Council
Ben Rowe, Virginia Farm Bureau
Jim Tate, Hanover-Caroline SWCD
Keith Burgess, Monacan SWCD
Spencer Yager, Employees Assoc. Rep (CB)
Amy Walker, DCR
Carl Thiel-goin, DCR
Jim Echols, DCR
Rachel McCuller, Headwaters SWCD
Todd Groh, DOF
Darryl Glover, DCR
David Bryan, DCR
Adrienne Kotula, Chesapeake Bay Commission
Anne Coates, Thomas Jefferson SWCD
Brandon Dillistin, Northern Neck SWCD
Carrie Swanson, Virginia Cooperative Extension
Charles Newton, Shenandoah Valley SWCD
Kyle Shreve, Virginia Agribusiness Council
Sharon Conner, Hanover-Caroline SWCD
Steven Meeks, Virginia Associations of SWCDs
Debbie Cross, DCR
Denney Collins, DCR
Christine Watlington, DCR
Roland Owens, DCR
Mark Hollberg, DCR
Ashley Wendt, DEQ
Charlie Wootton, Employees Assoc Rep, (OCB)
David Massie, Culpeper SWCD
Elizabeth Dellinger, Shenandoah SWCD
Luke Longanecker, Thomas Jefferson SWCD
Matt Kowalski, Chesapeake Bay Foundation
Nick Livesay, Lord Fairfax SWCD
Robert Bradford, Area II Representative
Anna Killius, James River Association
Stefanie Kitchen, Virginia Farm Bureau
Tim Higgs, VDACS
Jim Riddell. Virginia Cattlemen's Association
Raleigh Coleman, DCR
Robert Carlon, DCR
Jaclyn Friedman, DCR

MEETING OPENS (9:30 AM)

WELCOME, REVIEW OF AGENDA AND RULES UPDATE– DAVID BRYAN

Mr. David Bryan welcomed everyone to the meeting and began by establishing a new rule for this meeting and moving forward. Tabled votes will now be able to be voted on when they are first presented to the TAC and do not have to wait for a formal vote in the following meeting. Mr. Charles Newton asked for clarification on the difference between tabled verses deferred. Mr. Bryan stated that tabled means that the recommendation will not be reviewed for the next several years while deferred means that the

recommendation will be revisited during the next TAC year. Several TAC members expressed concern that Subcommittees may have tabled items that should have been deferred. Mr. Bryan stated that Subcommittee chairs are encouraged to review the recommendations from their Subcommittees to determine what items that were tabled were meant to be deferred and to bring those back at the next TAC meeting for clarification. (Note: By the end of the meeting, this appears to have been clarified per Subcommittee). To that end, Mr. Bryan stated that the elevation of the Conservation Efficiency Factor and participant caps have been deferred until next year from the Programmatic Subcommittee.

AGRICULTURAL NEEDS ASSESSMENT REVIEW– DARRYL GLOVER

Mr. Darryl Glover gave an update on the Agricultural Needs Assessment **(Attachment 1)**. DCR is required every biennium to complete the assessment. However, DCR has been updating it every year. This year's update was significant primarily because it incorporated the WIP III input deck causing substantial changes. Mr. Glover clarified that the Agricultural Needs Assessment is an estimate from the input deck in the WIP III, not an invoice. The Assessment will be published in the Department of Environmental Quality's Water Clean Up Report that is submitted annually to the General Assembly.

SUBCOMMITTEE FLOOR VOTES

STREAM PROTECTION SUBCOMMITTEE VOTES

Mr. Mark Hollberg presented the report of recommendations from the Stream Protection Subcommittee to be voted on by the full TAC.

The Stream Protection Subcommittee recommends to table the following recommendations:

1S – Work on Farms/Fields Split Between Multiple Property Owners – Tabled
Vote: Unanimous, Passed
This can be handled on a case by case basis within the District with DCR's input as needed.

2S – Long Term Crop Rotation Practice – Tabled
Vote: Unanimous, Passed
Cover Crop/ Nutrient Management Subcommittee has already tabled this suggestion.

3S – Higher Incentive Rates for Filter Strips and Waterways – Tabled
Vote: Unanimous, Passed
There is no obvious justification for this and there have been no comments on it.

4S – Double-driveway Fencing – Tabled
Vote: Unanimous, Passed
The subcommittee was reluctant to spell out "thou shalt nots." Double driveway fencing is clearly not "least cost/technically feasible."

5S – Fencing Where Stream is Property Boundary – Tabled
Vote: Unanimous, Passed
VACS can pay on exclusion fence protecting a stream that serves as a property line. Participant must protect the buffer. The protected buffer is reportable to the Bay Model and the exclusion fence is not equal to the boundary fence as it "replaces" whatever barrier, if any, was restraining livestock to the property of the participant. Defining "waters" to be considered within 6S.

8S – CCI for Sod Waterways or Other Lined Drainage Channels - Tabled
Vote: Unanimous, Passed
This is a low priority and could allow every VACS BMP could be CCI'd. The subcommittee was not ready to consider this degree of expansion.

10S – Water Well in the SL-7 – Tabled
Vote: Unanimous, Passed
This issue was discussed by the Stream Protection Subcommittee and rejected last year as the new SL-7 specification was developed.

PROGRAMMATIC SUBCOMMITTEE VOTES

Mr. David Bryan presented the report of recommendations from the Programmatic Subcommittee to be voted on by the full TAC.

The Programmatic Subcommittee recommends to table the following recommendations:

4P – Clarification of CREP Cancellation Policy – Tabled
Vote: Unanimous, Passed
Even if USDA cancels a contract due to a participant's death or a move, the District still has a signed contract with the individual for the 10-year lifespan. If the BMP is still functioning after a participant's death or move, all is well. The District may want to pursue a transfer of responsibility using the form in the Manual. If the BMP is not functioning after a participant's death, the maintenance requirements and responsibility to return cost-share funds may be waived by the Board. If the BMP is not functioning after a participant's move, they are still responsible for the maintenance.

5P – Mandated Percentage of Funds to "Small Farms" – Tabled
Vote: Unanimous, Passed
Table the idea of a carve-out for Small Farms and likewise decline to define Small Farms, but rather suggests that DCR should address this issue via an outreach and public relations campaign targeting Small Farms.

6P – Adoption of NRCS-style Flat Rate Payments – Tabled
Vote: Unanimous, Passed
Districts have the ability to use the NRCS cost list created by NRCS already if they choose (though they will be using last year's since NRCS cost lists come out in the fall). Districts also have the ability to create and update their own cost list each year.

8P – Conservation Easements and VACS Clarification – Tabled
Vote: Unanimous, Passed
The Subcommittee did not see any reason to change what it already in the Manual (see Pages II-25 and II-26). Participants with a Conservation Easement are eligible for VACS funding, including CCI, as long as they meet all other eligibility requirements.

The Programmatic Subcommittee recommends to amend and/or advance the following recommendations:

1Pa – Elimination of Practice Caps
Vote: Unanimous, Passed

Several practices in the VACS Manual have monetary practice caps that are not flush with the current participant caps. These were practices that were left over from the previous TAC year. There is no way to track the following practice caps in the Tracking Program:

- $50,000 per participant per year for SL-7, WP-4C, WP-4F and WP-6
- $70,000 per participant per year for SE-2

The practice caps for these five practices will therefore be eliminated. Additionally, practices such as WP-4 that currently have $100,000 monetary practice caps (i.e. equal to the existing participant cap) will have that practice cap language struck from the Manual.

1Pb – Making SL-6W and SL-6W/SL-6N Combination Projects Variance Eligible

Vote: Unanimous, Passed

Expand the variance to add the following practices to the Variance Process: SL-6W and SL-6W/SL-6N combination projects.

9P – E&S Permit Costs Under VACS

Vote: Unanimous, Passed

Subcommittee votes to make the following changes to existing language in the Guidelines (see Page II-29). Costs related to conducting state resource evaluations reviews such as a survey for cultural resources, threatened, endangered, or rare species, or an analysis for floodplain review should also be included in the estimated costs. The estimated costs should include any costs related to obtaining necessary permits, including permits related to the Chesapeake Bay Preservation Act, erosion and sediment control, and stormwater management. This includes third-party engineering and design costs associated with the obtaining of an approved permit from the locality as well as costs associated with the implementation of the permitted plan. Note that any engineering, design and implementation costs that are unrelated to the actual installation of the VACS practice (i.e. for other projects on the applicant's property), even if they are lumped into the same approved permit, shall not be included as a reimbursable expense.

2E – Clarification on Equine Eligibility for VACS

Vote: Unanimous, Passed

clarification on existing language (as found in the Glossary):

Agricultural Land: Defined as "land being used in a BONA FIDE program of agricultural management and engaged in the production of agricultural, horticultural or forest products for market. The real estate must consist of a minimum of five contiguous acres and have verifiable gross receipts in excess of $1,000 per year from the production or sale of agricultural, horticultural or forest products produced on the applicant's agricultural land for each of the past five years.

Agricultural Products: Crops, livestock and livestock products that create the need for agriculture best management practices to, including but not limited to: field crops, forage, fruits, vegetables, horticultural specialties, cattle, sheep, hogs, goats, horses, poultry, furbearing animals, milk, eggs and furs.

Agricultural Production: The production for commercial purposes of crops, livestock and livestock products, and includes the processing or retail sales by the producer of crops, livestock or livestock products which are produced on the parcel or in the district. For purposes of the VACS program, commercial equine operations such as breeding, boarding and training facilities are eligible for funding if they meet the necessary acreage and income requirements for each of the past five years.

Update on 1Pc – Participant Caps

Subcommittee discussed that participant caps just changed on July 1, 2019 and questioned whether there was a justification for an addition change at this time. The Subcommittee will revisit later when further information is available. No votes were taken on participant caps. The Subcommittee voted to Defer until 2020 TAC cycle at 10/1/2019 Subcommittee Meeting.

COVER CROP/NUTRIENT MGMT SUBCOMMITTEE VOTES

Mr. Bob Waring presented the report of recommendations from the Cover Crop Subcommittee to be voted on by the full TAC and Ms. Stephanie Drzal presented the report from the Nutrient Management Subcommittee.

The Cover Crop Subcommittee recommends to amend and/or advance the following recommendations:

5C – Increasing Cover Crop Rates

Vote: Unanimous, Passed

The sub-committee motioned to increase the early bonus payment by $5.00, for a rate of $30 dollars, and increase the rye bonus payment by $2.00, for a rate of $10.00. This will further increase the incentive to plant cover crops early and provide an added incentive for rye cover crop.

10C – Addition of Dura Rye to Approved List

Vote: Unanimous, Passed

The co-chair provided information from Mr. Wade Thomason regarding the Dura winter rye. The variety is a winter hardy, indeterminate growth, tetraploid rye and could be listed in the small table in the Ag BMP Manual as it would be covered under item 4. ii 'OR, any other indeterminate growth tetraploid rye cultivar'. The sub-committee motioned to add Dura to the list of rye cultivars in the Ag BMP Manual.

12C – Removing Contradictory Language in SL-3 Specification

Vote: Unanimous, Passed

The sub-committee reviewed the language and discussed the intent of the entire paragraph, Rates C.1. As stated in the recommendation, the group also found the last sentence to be potentially contradictory to the rest of the language in paragraph. The sub-committee motioned to strike the last sentence from the SL-3, C. Rates, paragraph 1.

The Cover Crop Subcommittee recommends to table the following recommendations:

2C – Fertilizer on Cover Crops – Tabled due to Redundancy with 7C

Vote: Unanimous, Passed

A number of the matrix items were considered to be similar and/or duplicative (2C, 3C, and 7C). Item 7C will be used to move the topic forward.

3C – Starter Nitrogen on Cover Crops – Tabled due to Redundancy with 7C

Vote: Unanimous, Passed

A number of the matrix items were considered to be similar and/or duplicative (2C, 3C, and 7C). Item 7C will be used to move the topic forward.

6C – New Incentives for Drilling Cover Crops – Tabled

Vote: Unanimous, Passed

The group discussed the acreages of cover crop that are drilled versus the acreages of cover crop that are broadcast then incorporated. The Bay Model credits for drilled cover crop may not be high enough to justify the creation of a new incentive. Additionally, since the majority of cover crop acres are broadcast, the proposed incentive may not increase drilled acreages enough to warrant the creation of a separate incentive.

11C – Splitting the SL-1 into Separate Practices – Tabled
Vote: Unanimous, Passed
The sub-committee reviewed the current language in the manual for the SL-1. The current language has 3 lifespans with varied payment rates. In addition, it was discussed that secondary considerations could be utilized for ranking practices with longer lifespans.

The Cover Crop Subcommittee recommends to defer the following recommendations:
7C – Fall Cover Crop with Nutrients Applied – deferred
It has been recommended that several topics, such as fall applications of nutrient, seeding rates, and others, be addressed in later cycles after research has been conducted.

8C – Lower Seeding Rates for Cover Crops – deferred
It has been recommended that several topics, such as fall applications of nutrient, seeding rates, and others be addressed in later cycles after research has been conducted. VCE may be moving forward with studying seeding rates (Item 8C). Cost of rye seeding continues to increase. Research would be conducted to determine if seeding rates could be reduced and still achieve the same nutrient scavenging rates.

9C – New Specification for Cover Crop After Soybeans – deferred
For Item 9C, information has not been provided regarding planting date changes previously submitted. It seems unlikely this information will come in time to make a recommendation for this cycle.

The Nutrient Management Subcommittee recommends to table the following recommendations:
7N – Practice for Disposal of Drip Lines and Plastic – Tabled
Vote: Unanimous, Passed
The subcommittee discussed an option to address the issue of the used plastics, Districts could create a recycling program similar to tire recycling events. This is not applicable to VACS.

9N – Changing Payment Rates on NM-3C – Tabled
Vote: 1 Opposed, Passed
There will be changes proposed to the NM-3C by the Subcommittee based on item 8N. However, the rates will remain different. The two practices are not the same and there are additional requirements and equipment necessary for enhanced nutrient management.

The Nutrient Management Subcommittee recommends to defer the following recommendations:
10N – Modification of Rate for Soil Testing Components – deferred
The subcommittee discussed the use of labs and rates statewide. Additional information will be gathered and the item may be addressed during a future TAC Cycle.

Update on other Nutrient Management decisions for initial TAC discussion:
Mr. Keith Burgess presented the new specification being proposed by Nutrient Management Subcommittee (**Attachment 2)**. The subcommittee was looking for comments and feedback. There was

no opposition from the full TAC on the subcommittee moving forward with creating the new specifications. Mr. Burgess asked that if anyone has any further input to email the subcommittee chair.

Once all the recommendations needing votes had been presented, each subcommittee then updated the full TAC on other decisions for initial discussion to be voted on at the next TAC meeting.

ANIMAL WASTE SUBCOMMITTEE UPDATE

Mr. Ben Chester and Mrs. Amanda Pennington presented the report of recommendations from the Animal Waste Subcommittee, no recommendations needed to be voted on at this time.

Update on WP-4L Specification Language

WP-4L includes four different options: hardened feeding pad, seasonal feeding facility, sacrifice lot or feeding facility with loading lot feeding system, and 100% confinement. The Animal Waste Subcommittee asked for comments and direction. The Subcommittee is now heading in the direction of making this into four separate specs. The cost share rate currently being discussed by the subcommittee is the same as WP-4, 75% up to $100,000 with the option of the variance. The TAC supported the efforts to continue to refine this specification. In the future if this specification is completed and voted on, there will need to be coordination between the Stream Protection and Animal Waste Subcommittees on dealing with the SL-6 and use of pads. (Attachment 3).

COVER CROP SUBCOMMITTEE UPDATE

Update On Other Cover Crop Decisions for Initial Tac Discussion—Voted On Next TAC Meeting

13C – eliminating all acreage caps for the cover crop practices

The subcommittee recommends to remove all acreage caps. Several TAC members had concerns that the program may oversubsidize grain producers for harvestable cover crop.

16C – standard rate for SL-8B

The subcommittee recommends increasing the standard planting rate to $20.00 to alleviate the disparity between the SL-8B standard planting dates and the SL-8H standard planting dates.

14C – summer cover crop practice to incentivize reseeding of sacrifice areas

The subcommittee motioned to send the item to the Stream Protection Subcommittee.

15C – Universal Soil Loss Equation be added to the Tracking Program

The subcommittee recommends that the Universal Soil Loss Equation to be added to the Ag BMP Tracking Program for implementation for the 2022 program year.

STREAM PROTECTION SUBCOMMITTEE UPDATE

Update on Stream Protection Subcommittee Votes for Initial TAC Discussion

6S – define live stream and surface waters for the glossary to be applied to many VACS Practices

The subcommittee recommends utilizing the first sentence from the Buffer Guidelines as the definition.

Live Stream/Water: "A creek, stream, river or other water feature which has surface flow, or creates a surface flow, for a substantial portion of the year."

TAC members commented to add a statement that this definition pertains only to practices within the VACS manual, particularly Stream Exclusion.

7S – Create new pumping plants when needed for stream protection practices
(Attachment 4, Attachment 5, Attachment 6, and Attachment 7)
For specifications SL-6W, WP-2W, SL-6N, and WP-2N:
Policy B6.i.a.II) - ~~Pumps may operate on purchased electrical current or alternative energy sources such as solar, battery, mechanical or hydraulic energy.~~ The payment for the selected pump, provision of power, and associated equipment should be the most cost effective for the specific site and application.

Policy B10. – Generators for emergency use may not receive cost-share.

Deletion of "Note" in Rates section in SL-6W and in WP-2W (buffer incentive payment limitation to 100' or 1/3 of floodplain up to 300')

9S – expand SL-7 at allow for the extension of a watering system associated with narrow buffers
The subcommittee approved expanding eligibility to narrow buffers (less than 35' and min 10') and edited the Rates section to include "Fields which have had livestock excluded at less than 35 feet, but at a minimum of 10 feet, shall receive 50% cost share on eligible components." **(Attachment 8).**

11S – Include standards in specifications for permanent vegetative cover on critical areas, SL-11, WP-3
The subcommittee recommends to keep SL-11 as a simple, non-structural 5-year practice but added a reference to NRCS Standards 382 Fence and 484 Mulching. Inserted language in SL-11, "For permanent fencing needed to protect vegetative cover." Inserted language in both SL-11 and WP-3, "Livestock must be excluded after planting for a minimum of 12 months." To WP-3, added "permanent fencing" to Policy B.2., added references to NRCS Standards 342 Critical Area Planting, 382 Fence, 484 Mulching, 606 Subsurface Drain, 620 Underground Outlet and added language "When a subsurface drain is used in conjunction with the practice, a wetlands determination shall be performed prior to installation."
(Attachment 9 and Attachment 10)

1E – request to consider SL-6A a cost share practice in additions to being a tax credit practice
The subcommittee approved making this BMP eligible for 50% cost-share on 9/24/19. The subcommittee was willing to see if allowing cost share will increase the use of this rigorous BMP. After discussion with the full TAC, the subcommittee will transfer this recommendation to the Animal Waste Subcommittee so that it can be compared to the new practice in development and determine if it is best to combine or keep as tax credit.

NUTRIENT MANAGEMENT SUBCOMMITTEE UPDATE

Update on other Nutrient Management decisions for Initial TAC Discussion

5N – Vegetable producers use of nutrient management practices
The subcommittee motioned adding specialty crops, produce, turf (aka sod farms), grain sorghum/milo, and canola to the Section A and Section B, 2. iii. of the NM-5 N specification. This language could be

matched for the NM-5P. For the NM-1A, NM-5N, and NM-5P. Language was added to include specialty crops and could add turf to match the SL-8 **(Attachment 11, Attachment 12 and Attachment 13).** It may be necessary to add a definition of specialty crops in the Glossary.

6N – More inclusion for vegetable producer
This is the same as 5N, actions taken in 5N address the concerns of this recommendation.

8N – Modify NM-3C specification to be consistent with the NM-5N specifications for cost share payment
The subcommittee motioned to pay for the PSNT for manure applications when the application rate would be zero, excluding biosolids, to the NM-3C specifications **(Attachment 14).**

PROGRAMMATIC SUBCOMMITTEE UPDATE

Update on other Programmatic Votes for Initial TAC Discussion

10P – Clarify tax credit language for Cover Crop and Nutrient Management specifications

The Subcommittee votes unanimously to take the tax credit certification form out of the individual specifications and make the following edited version available in the Glossary section of the Manual for Districts that still wish to use it **(Attachment 15).**

UPCOMING MEETINGS

November 20, Augusta County Government Center, Verona, 9:30 AM – 3:30 PM
*last meeting for subcommittees to bring new items to be voted on by full TAC

December 18, Central High School Cultural and Educational Complex, Goochland, 9:30 AM – 3:30 PM

PUBLIC COMMENT
None

ADJOURN (12:25PM)

2019 Agricultural Needs Assessment - Biennial Needs Summary with All Data

Estimated Costs			2021-2022 Biennium		2023-2024 Biennium		2025 Target Year					
2019-2025	**FY19 Funding**	**FY20 Funding**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
CHESAPEAKE BAY STATE COST SHARE	**$14,384,534**	**$39,486,279**	**$59,770,089**	**$65,128,785**	**$70,487,481**	**$75,846,177**	**$81,204,873**	**$84,777,337**	**$84,777,337**	**$54,814,704**	**$54,814,704**	**$54,814,704**
CHESAPEAKE BAY TECHNICAL ASSISTANCE	**$2,141,348**	**$6,367,656**	**$7,770,112**	**$8,466,742**	**$9,163,373**	**$9,860,003**	**$10,556,633**	**$11,021,054**	**$11,021,054**	**$7,125,912**	**$7,125,912**	**$7,125,912**
CHESAPEAKE BAY PRODUCER PORTION			$37,356,306	$40,705,491	$44,054,676	$47,403,861	$50,753,046	$52,985,836	$52,985,836	$34,259,190	$34,259,190	$34,259,190
CHESAPEAKE BAY FEDERAL PORTION	FY19-20 will be included		$52,298,828	$56,987,687	$61,676,546	$66,365,405	$71,054,264	$74,180,170	$74,180,170	$47,962,866	$47,962,866	$47,962,866
OCB STATE COST SHARE	**$9,613,603**	**$17,608,120**	**$25,615,752**	**$27,912,336**	**$30,208,920**	**$32,505,504**	**$34,802,088**	**$36,333,144**	**$36,333,144**	**$23,492,016**	**$23,492,016**	**$23,492,016**
OCB TECHNICAL ASSISTANCE	**$1,431,125**	**$2,890,794**	**$3,330,048**	**$3,628,604**	**$3,927,160**	**$4,225,716**	**$4,524,271**	**$4,723,309**	**$4,723,309**	**$3,053,962**	**$3,053,962**	**$3,053,962**
OCB PRODUCER PORTION			$16,009,845	$17,445,210	$44,054,676	$47,403,861	$50,753,046	$22,708,215	$14,682,510	$14,682,510	$14,682,510	$14,682,510
OCB FEDERAL PORTION	FY19-20 will be included		$22,413,783	$24,423,294	$26,432,805	$28,442,316	$30,451,827	$31,791,501	$31,791,501	$20,555,514	$20,555,514	$20,555,514
SWCD OPERATIONS FUNDING	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091	$7,191,091
TOTALS	$34,761,701	$73,543,940	**$231,755,853**	**$251,889,240**	**$297,196,726**	**$319,243,933**	**$341,291,139**	**$325,711,657**	**$317,685,951**	**$213,137,765**	**$213,137,765**	**$2,724,187,793**
												FY21 - FY30

Cost of BMPs Needing Single Implementation 2019 - 2030 In ChesBay	**$1,001,597,677**		**$735,467,346** Lump Sum	**TOTAL OCB BMP COST 2019 - 2030 using 70/30 split**	
***Annual BMP Portion at 100% implemented**	**$89,311,600**	**FY26…30**			
*Annual BMPs averaged approx. 17% of WIP FY18 - 20					
*Annual BMPs increase FY21 - 26 to 30%, 45%, 60%, 75%, 90%, 100%			**per year cost**		
Stream Exclusion BMPs	**$ 524,346,077**	**FY21 - 27**	**$74,906,582**		
Animal Waste	**$ 346,727,680**	**FY21 - 30**	**$34,672,768**		
Cost of Other Non-Annual BMPs	**$126,463,570**	**FY21 - 30**	**$12,646,357**		
****Animal Mortality Composters**	**$ 4,060,350**	**FY21 - 30**	**$406,035**		
STATE TECHNICAL ASSISTANCE	13% OF STATE SHARE ONLY				

	FY21	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28 - FY30**
CHESAPEAKE BAY 1X BMP COST	**$122,631,742**	**$122,631,742**	**$122,631,742**	**$122,631,742**	**$122,631,742**	**$122,631,742**	**$122,631,742**	**$47,725,160**
CHESAPEAKE BAY ANNUAL BMP COST	**$26,793,480**	**$40,190,220**	**$53,586,960**	**$66,983,700**	**$80,380,440**	**$89,311,600**	**$89,311,600**	**$89,311,600**
CHESAPEAKE BAY STATE SHARE 40%	$59,770,089	$65,128,785	$70,487,481	$75,846,177	$81,204,873	$84,777,337	$84,777,337	$54,814,704
CHESAPEAKE BAY PRODUCER PORTION 25%	$37,356,306	$40,705,491	$44,054,676	$47,403,861	$50,753,046	$52,985,836	$52,985,836	$34,259,190
CHESAPEAKE BAY FEDERAL PORTION 35%	$52,298,828	$56,987,687	$61,676,546	$66,365,405	$71,054,264	$74,180,170	$74,180,170	$47,962,866
TOTAL OCB BMP COST	**$64,039,381**	**$69,780,841**	**$75,522,301**	**$81,263,761**	**$87,005,221**	**$90,832,861**	**$90,832,861**	**$58,730,040**
OCB STATE SHARE 40%	$25,615,752	$27,912,336	$30,208,920	$32,505,504	$34,802,088	$36,333,144	$36,333,144	$23,492,016
OCB PRODUCER PORTION 25%	$16,009,845	$17,445,210	$18,880,575	$20,315,940	$21,751,305	$22,708,215	$22,708,215	$14,682,510
OCB FEDERAL PORTION 35%	$22,413,783	$24,423,294	$26,432,805	$28,442,316	$30,451,827	$31,791,501	$31,791,501	$20,555,514

*Annual BMPs include cover crops, nutrient management, poultry litter transport

** Animal mortality composters at 15 per year averaging $27069 each

ATTACHMENT 2

Cover Crop for Managing liquid/semi-solid manure

NM-8? SL-8M?

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients. The primary purposes are to reduce the leaching of nutrients to ground water and surface runoff of nutrients into surface waters; a secondary purpose is to reduce winter rain and wind generated erosion.

The intent is to allow manure application on cover crops when there is no other land with actively growing crops to utilize the nutrients.

Policies and Specifications

Soil loss per normal procedures

Tax credit/VACS statement

This practice shall not be used for grain production. The cover crop shall be harvested or killed prior viable seed development. All remaining cover crop residue shall be left on the surface, no tillage allowed post harvest or burndown of the cover crop.

This practice applies only to farms generating liquid or semi-solid manure.

The NMP shall require cropping rotation practice that are consistent with sound agronomic crop production practices. ie If the farmer knows he will not have sufficient other acreage to make fall manure applications, then the summer crop shall be planned for a harvest date that will allow adequate fall growth to utilize the nutrients and reduce soil erosion.

Planting shall occur within 2 weeks of summer/fall harvest, but no later than the early planting dates. A variance may be granted under extreme weather conditions as supported by local weather data.

Fall soil nitrate testing and winter tissue testing is encouraged as part of this practice.

A fall PSNT is required. If PSNT test is less than 30 ppm then a manure application at planting is allowed. If soil test greater than 30ppm at planting then crop must be well established (4-6" tall and 50% ground cover) and temperatures conducive to N uptake at time of manure application.

Seeding shall be a minimum 2 bu small grains, additional species are allowed in combination with the 2 bu small grain. Expected nitrogen/nutrient credits shall be included in the following crop.

A manure sample shall be taken at time of application and is a required component of this practice. Application recommendations shall be consistent with approved NMP and recent (within 1 year) manure test.

No fall application of commercial N allowed in combination of this practice. Exception, if P is allowed then no more than 15 lbs commercial N.

Spring N applications (after March 1) shall be based off tissue tests. *Still need to work on this based on crop intentions – just a cover crop or harvesting.*

Soil test taken within 18 months.

Commercial P may be applied on soil having a soil test of less than medium. Total P application (manure + commercial) rate shall not exceed recommendation for crop rotation in nutrient management plan.

Good stand 60% vegetative cover by December 1

No double dipping

This is a rough draft. There will need to be discussion and revisions to achieve the targeted goals and hopefully nutrient management credits allowed for in bay modeling.

Drafted 10-7-19

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ATTACHMENT 3

Fix WP-4 – Remove seasonal feeding

Fix SL-6 – Remove gravel pad

WP-4L

DCR Specifications for No. WP-4

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's animal waste control facilities best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A planned system designed to prevent those areas exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover and to manage liquid and/or solid waste from areas where livestock are concentrated. The intent of this practice is to improve water quality by preventing manure and sediment runoff from entering watercourses and sensitive karst areas and capturing a portion of the manure as a resource for other uses by storing and spreading waste at the proper time, rate, and location.

Option 1 – Hardened Feeding Pad

A gravel or concrete pad that provides a stable area for feeding livestock and allows for the capture of manure. Stream exclusion is required.

Option 2 – Seasonal Feeding Facility

A covered concrete facility that includes a feeding area as well as a manure storage area that allows for the capture and storage of manure during inclement weather. An approved rotational grazing plan and stream exclusion are required.

Option 3 – Sacrifice Lot or Feeding Facility with Loafing Lot Management System

A sacrifice lot or covered facility that includes a feeding area as well as a bedded or manure pack area with a manure storage area if needed. A minimum of three associated grassed lots are required. All streams must be excluded. Streams associated with the grassed lots require a 35' minimum buffer.

Option 4 – 100% Confinement

A covered facility that requires 100% confinement of livestock which includes a feeding area as well as a bedded or manure pack area with a manure storage area if needed. Permanent removal of livestock from grazed acres associated with confined livestock is required.

B. Policies and Specifications

1. Eligibility: Cost-share and tax credit are limited to solving the pollution problems where the livestock operation can show they have either:

i. Access to land for application, and where a full farm plan approach to solving the water quality problem is being carried out.

ii. A current Nutrient Management Plan that has been certified by a Virginia certified nutrient management planner and, if needed, a transfer plan prepared by a certified nutrient management planner for any livestock.

2. Practice Development

i. Before cost-share or tax credit can be approved all other means of reducing the environmental impacts of animal waste from the existing operation must be considered. Lack of space for relocation, economic inefficiency or other factors may be considered. A "Risk Assessment for Water Quality Impairment from heavy Use Areas/Animal Concentrated Areas" must be completed and a minimum score of 120 is required in order to be eligible.

ii. The applicant is also required to sign a Dry Manure Storage Structure Agreement DCR199-86 (03/18) or similar District agreement which addresses the minimum criteria prior to receiving any funds.

iii. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by the DCR agricultural BMP engineer except for practices previously sized and engineered by NRCS.

Need eligibility requirements/practice development for each option.

3a. Cost-share and tax credit for is authorized (Option 1 – Hardened Feeding Pad):

i. The pad shall be sized based on the current herd size and planned feeding method, not to exceed 75 SF per animal unit.

ii. Gravel or concrete to provide a hardened feeding area. If concrete is utilized, it shall be curbed.

3b. Cost-share and tax credit is not authorized for (Option 1 – Hardened Feeding Pad):

i. Facilities that do not meet local or state regulations.

ii. Installation primarily for the operator's convenience.

iii. Operations that are planned or under construction.

4a. Cost-share and tax credit is authorized for (Option 2 - Seasonal Feeding Facility):

i. Feeding area sized based on the current herd size and planned feeding method, not to exceed 75 SF per animal unit.

ii. A dry stack manure storage area sized for up to six (6) months storage of existing need.

iii. Roofs over the feeding area and manure storage area and roof runoff system.

iv. For individual components of animal waste systems, only if:

a. The DCR Ag BMP Engineer determines that the component stands alone as a measure that will significantly improve water quality and

b. Only where a no-discharge permit for a waste storage facility is not required.

4b. Cost-share and tax credit is not authorized for (Option 2 - Seasonal Feeding Facility):

i. Storage of manure generated outside of this facility.

ii. Troughs within the structure.

5a. Cost-share and tax credit is authorized for (Option 3 - Feeding Facility with Loafing Lot Management System):

i. Minimum of three grassed lots and a sacrifice lot, which may be a building or just a hardened lot. Must maintain 60% cover on grassed lots.

ii. Pack area sized based on the current herd size and planned feeding method, not to exceed 75 SF per animal unit. Pack area feeding or feed lane shall be sized based on the planned feeding method.

iii. When a feed lane is utilized, a dry stack manure storage area sized based on livestock time at feed bunks, up to six (6) months storage of existing need.

iv. Roofs over the feeding area and manure storage area and roof runoff system.

v. Fencing, walkways, and water system components to provide functional lots.

vi. For individual components of animal waste systems, only if:

a. The DCR Ag BMP Engineer determines that the component stands alone as a measure that will significantly improve water quality and

b. Only where a no-discharge permit for a waste storage facility is not required.

5a. Cost-share and tax credit is not authorized for (Option 3 - Feeding Facility with Loafing Lot Management System):

i. Storage of manure generated outside of this facility.
ii. Operations with sufficient grazing acreage.

6a. Cost-share and tax credit is authorized for (Option 4 – 100% Confinement):

i. Pack area sized based on the current herd size and planned feeding method, not to exceed 75 SF per animal unit. Pack area feeding or feed lane shall be sized based on the planned feeding method.

ii. When a feed lane is utilized, a dry stack manure storage area sized based on livestock time at feed bunks, up to six (6) months storage of existing need.

iii. Water system components to provide a functional structure.

iv. Roofs over the feeding area and manure storage area and roof runoff system.

v. Establishment of permanent vegetative cover on acreage addressed by this practice.

vi. For individual components of animal waste systems, only if:

a. The DCR Ag BMP Engineer determines that the component stands alone as a measure that will significantly improve water quality and

b. Only where a no-discharge permit for a waste storage facility is not required.

6a. Cost-share and tax credit is not authorized for (Option 4 – 100% Confinement):

i. Conversion to cropland of acreage addressed by this practice.

ii. Fencing and/or walkways.

iii. Storage of manure generated outside of this facility.

iv. Operations with sufficient grazing acreage.

7. The sizing calculations of the practice shall be reviewed and approved by the DCR Ag BMP Engineer (except for practices previously sized and engineered by NRCS) and shall be coordinated with the nutrient management plan so that adequate storage capacity is installed.

8. All appropriate local and state permits must be obtained before beginning construction.

9. Before cost-share or tax credits are provided, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on and all associated livestock production acreage. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

10. This practice is subject to NRCS standards 313 Waste Storage Structure, 316 Animal Mortality Facility, 342 Critical Area Planting, 359 Waste Treatment Lagoon, 362 Diversion, 367 Roofs and Covers, 382 Fence, 412 Grassed Waterway, 558 Roof Run Off Management, 561 Heavy Use Protection, 575 Trails and Walkways, 620 Underground Outlet, 633 Waste Recycling and 634 Waste Transfer. **(need to duplicate for each option).**

11. All practice components implemented must be maintained for a minimum of 15 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this

practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment, alone or if combined with any other cost-share payment, will not exceed 75% of the total eligible cost. The maximum state payment for this practice is not to exceed $100,000 per landowner per year.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00. 3. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

ATTACHMENT 4

Edits approved by Stream Protection subcomm 8-29-19 and 9-24-19

Name of Practice: STREAM EXCLUSION WITH WIDE WIDTH BUFFER AND GRAZING LAND MANAGEMENT
DCR Specifications for No. SL-6W

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's stream exclusion with grazing land management best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from grazing livestock on existing pastureland through livestock exclusion.

Provide livestock water systems, fencing and/or a hardened pad for winter-feeding that will improve water quality control erosion and eliminate direct access to or a direct runoff input to all live streams ~~where there is a defined water quality problem~~. **Stream exclusion fencing and an off-stream watering facility are required components of this practice**. Rotational grazing is an optional enhancement of this practice. The exclusion and/or rotational grazing system receiving cost share should reflect the least cost, technically feasible, environmentally effective approach to resolve the existing water quality problem.

B. Policies and Specifications

1. State cost-share and tax credit on this practice are limited to pastureland that borders a live stream or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. An exception to this may be granted in cases of severe environmental degradation occurring in and around features such as: springs, seeps, ponds, wetlands, or sinkholes, etc.

2. An applicant may not apply for or receive cost share funds for CRSL-6 and SL-6 practices funded by the Virginia Agricultural Best Management Practices Cost Share Program on the same fields.

3. A written management plan, to include a rotational grazing component if more than three new grazing units are created by the installation of interior fencing, and operation and maintenance plans must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed in the management plan should include water sources, environmental impact of winter-feeding pad location,

runoff from the feeding pad area, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

4. The buffer must be maintained as perennial species for the practice lifespan. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

5. To protect stream banks, state cost-share and tax credit are authorized for:
   i. Fencing to restrict stream access in connection with newly developed watering facilities. The stream exclusion fence must be placed a minimum of 35 feet or~~, up to~~ 50 feet, away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.
      a. Wetlands, intermittent springs, seeps, ponds connected to streams, sensitive karst features, and gullies adjacent to streams should be included in the buffer area.
      b. Isolated seeps, springs, wetlands, and ponds without direct connection to a stream may be fenced as well, but shall not be used as the sole criteria for determining eligibility for the SL-6 practice.
   ii. Stream crossings for grazing distribution or limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.
   iii. Fence chargers used to electrify permanent or temporary fencing.

6. To supply an alternative watering system to grazing livestock, state cost-share and tax credit are authorized for:
   i. Watering developments including:
      a. Wells, including a permanently affixed pump and pumping accessories;
         I) Districts may approve cost-share for dry wells and/or well location studies (geotechnical surveys) for the development of an alternative watering systems on a case by case basis and at the discretion of the District's Board.
         II) Pumps and equipment associated with portable and permanent watering systems. ~~Pumps may operate on purchased electrical current or alternative energy sources such as solar, battery, mechanical or hydraulic energy.~~ The payment for the selected pump, provision of power, and associated equipment should be the most cost effective for the specific site and application. The replacement costs of pumps and pumping equipment components which fail to

function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.

b. Connection to existing water supply
c. Development of springs, seeps, or stream pickups, including fencing of the area, where needed, to protect the development from pollution by livestock;
d. Ponds (if the only cost effective and technically feasible alternative for water source) including fencing of the area, where needed, to protect the development from pollution by livestock
e. Pumps and equipment associated with permanent watering systems.

ii. Watering facilities including:
   a. troughs,
   b. tanks/storage facilities/cisterns,
   c. hydrants
iii. Pipelines to convey water to watering facilities.
iv. Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.
v. Portable water supply system components such as troughs, pipe, etc. that are:
   a. Commercially available or farmer constructed,
   b. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,
   c. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and
   d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

7. To establish pasture management through rotational grazing, state cost-share and tax credit are authorized for:
   i. Interior fencing and watering facilities that distribute grazing to improve water quality, when combined with the livestock exclusion component of this practice on an adjacent stream or sensitive feature. Consideration must be given, in such cases, to the additional management requirements of such systems.
   ii. When more than three new grazing units are created by the installation of interior cross fencing, a written grazing management plan must be prepared and implemented. Input from the participant during the development of the plan is required.

8. To develop a hardened pad for winter-feeding of livestock state cost-share and tax credit are authorized for:

i. Grading and shaping, geotextile fabric, gravel, concrete or bituminous concrete.
ii. The winter-feeding hardened pad will be cost shared based upon the existing herd size. Cost-share funds cannot be used to accommodate expansion of the herd size.

iii. All other means of reducing the environmental impact of the winterfeeding operation must be explored and rejected, due to economic inefficiency or lack of space for relocation, before cost-share or tax credit can be approved.
iv. Cost-share funding for a hardened winter-feeding pad will only be authorized after the "Needs Determination Worksheet" has been completed, and all other methods of resolving the water quality degradation have been considered.
v. A nutrient management plan is required to properly manage the manure collected from around the feeding pad that addresses all enriched runoff and manure accumulations associated with the winter-feeding pad.

9. Portable or temporary system components (fencing, etc.) cannot be utilized in other areas or moved from fields utilized in the system plan. The replacement costs of portable components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.

10. The conservation planning process for developing an alternative watering system for livestock should include consideration of some means to provide water to the livestock during emergency conditions. Generators for emergency use may not receive cost-share.

11. The primary water use of the components which were installed with state cost share and tax credit must be for the purpose of providing water for livestock; however, incidental use is not prohibited. State cost-share and tax credit is not permitted for any electrical, structural, or plumbing supplies, including pipe, or associated construction costs for developing any incidental use. When an incidental use is anticipated, the District Board should consider the applicant's intent before approving the request. Incidental use will be documented in the applicant's file

12. No state cost-share and tax credit is authorized under the practice for any installation that is:
i. PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.
ii. To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.

iii. For boundary fencing or water supply systems used to establish new pastures not currently in use.
iv. For interior fencing and watering facilities to distribute grazing in fields not receiving exclusion fence. (Applicant may apply for SL-7).
v. For the purpose of providing water for the farm or ranch headquarters.

13. Soil loss rates must be computed for all applications for use in establishing priorities for receiving cost share funds.

14. All permits or approvals necessary are the responsibility of the applicant.

15. This practice is subject to NRCS Standards, 382 Fence, 390 Riparian Herbaceous Cover, 472 Access Control, 516 Livestock Pipeline, 533 Pumping Plant, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility and 642 Water Well.

16. All practice components implemented must be maintained for a minimum of either 10 years or 15 years, as indicated in the table below, following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment rates shall be based on the approved or actual cost, whichever is less, and shall vary by the minimum fence setback and lifespan of the practice. The buffer payment rates shall be provided for a maximum of 10 acres. The rates including the buffer payment rates are:

Minimum fence setback (from the top of streambank)	Lifespan	Cost-share rate	Buffer payment rate	Buffer payment cap
50'	15 years	100%	$80 per acre per year	$12,000 per contract
	10 years	95%	$80 per acre per year	$8,000 per contract
35'	15 years	90%	$80 per acre per year	$12, 000 per contract
	10 years	85%	$80 per acre per year	$8,000 per contract

~~NOTE: For the purposes of calculating buffer acres, measurements are capped at 100 feet from the tope of streambank or 1/3 of the floodplain up to 300 feet.~~

NOTE: The Buffer Payment Cap is the maximum a participant can be paid per tract even when multiple SL-6W and/or WP-2W practices are approved in a given program year.

2. The maximum state cost-share payment for this practice will be $100,000. Multiple SL-6s may be approved for funding in the same program year up to the cap.

3. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

4. If a participant receives cost-share from any source (state, federal, or private), only the percent of the total cost of the project that the applicant contributed is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as described above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Needs Determination Worksheet for Winter-Feeding Pad for _____ project

(To be completed by the conservationist; Use additional sheets as necessary)

This practice is not designed to be cost-shared as a stand-alone practice, but rather as a component to address a limited site specific situation, where an existing concentrated feeding location, due to its proximity to surface water or karst formations, concentrates manure and generates contaminated runoff that cannot be treated in a more cost-effective manner (including relocation of existing feeding site and fencing of stream buffers). All other potential more cost-effective approaches to reducing the water quality impact from the existing feeding operation must be implemented prior to consideration of construction of a winter-feeding pad (see Policies and Specification section B 8.)

Describe the current water quality problem? Have all other more cost-effective BMP approaches been implemented? If not do not provide cost-share. List approaches that have been considered.

Is there another location (further from the stream) that this feeding operation might be relocated to? If there is, relocate there and do not provide cost-share or provide environmental reasons why it cannot be relocated.

How many and what types of livestock will be fed at the facility? This facility should not be approved for cost-share unless a significant nutrient or bacterial contamination issue can only be cost-effectively resolved through the construction of the feeding pad. Explain the source and document the bacterial contamination being treated.

Is there an existing vegetated buffer between current the winter-feeding location and the closest waterway, are livestock excluded from the buffer and water feature? If animals have not been excluded from all water features on this tract, do not provide cost-share.

Describe the condition of the riparian area (starting at the top of the bank and proceeding upland for a minimum of 200 feet). If there is sufficient buffer width (200') that adequately treats contaminated run-off before it reaches the stream, do not provide cost-share.

How much pasture, hay land and cropland is available in this operation where the stored manure may be spread? If the available land cannot handle the anticipated amount of manure generated a plan must be developed for disposing of the manure in a manner consistent with existing nutrient management techniques.

Pasture acres _____ Hay acres _____ Cropland _____

What level of conservation planning has been accomplished on your operation?

What level of Conservation Plan implementation is in place on this operation?

Will the establishment of a winter-feeding pad in conjunction with stream fencing resolve all erosion, and bacterial contamination issues associated with this grazing system and feeding operation (including potential contaminated runoff from the winter feeding facility)? **If not, do not provide cost –share funds.**

Completed by:

_____	_____	_____
Signature	Date	Title

Revised April, 2019

Attachment 5

Changes approved by Stream Protection Subcomm 9/24/19

Name of Practice: STREAM PROTECTION
(FENCING WITH WIDE WIDTH BUFFER)
DCR Specifications for No. WP-2W

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's stream protection best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Protection by fencing along all live ~~water bodies and~~ streams in a field, to reduce erosion, sedimentation, and the pollution of water from agricultural nonpoint sources.

The purpose of this practice is to offer an incentive that will change land use or improve management techniques to more effectively control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality.

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
   - i. Permanent fencing to protect streambanks from damage by domestic livestock. Cost-share may be authorized for fencing as a single eligible component that stands alone as a measure that will significantly improve water quality.
   - ii. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to the water. The installation of livestock crossings and controlled hardened accesses is limited to small streams. When required, permits must be obtained by the applicant from authorities before the practice will be approved.
   - iii. Fencing may be authorized as a single eligible component only if all of the following apply:
     - (a.) The fence is placed a minimum of 35 feet away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.

(b.) Wetlands, intermittent springs, seeps and gullies adjacent to streams should be included in the buffer area. Isolated seeps, springs or wetlands may be fenced as well.

(c.) There is adequate natural or planted vegetation between the fence and the stream to serve as an effective filter strip to improve water quality.

2. The buffer must be maintained as perennial species for the practice lifespan. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

3. Cost-share and tax credit are not authorized for:
   i. Boundary fence if it is being used to bring new pasture into production. If the stream is the barrier currently confining the livestock, then fencing is allowed.
   ii. Interior cross fencing that does not exclude livestock from the stream.
   iii. Rebuilding of existing fence.
   iv. Temporary fencing.
   v. Hardened travel lanes that are not attached to a crossing or limited access.

4. The conservation planning process for developing an alternative watering system for livestock should include consideration of some means to provide water to the livestock during emergency conditions. Generators may not receive cost-share.

5. Wildlife, environmental, and livestock shade considerations must be given when designing the practice.

6. This is a one-time incentive payment not eligible for reapplication on the same site. Life span requirements can be waived if damaged by flooding.

7. Soil loss rates must be computed for all practices for use in establishing priority considerations.

8. This practice phase is subject to NRCS Standards 342 Critical Area Planting, 382 Fence, 390 Riparian Herbaceous Cover, 472 Access Control, 575 Trails and Walkways and 578 Stream Crossing.

9. All practice components implemented must be maintained for a minimum of either 5 years or 10 years, as indicated in the table below, following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following

the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment rates shall be based on the approved or actual cost, whichever is less, and shall vary by the minimum fence setback and lifespan of the practice. The buffer payment rates shall be provided for a maximum of 10 acres. The rates including the buffer payment rates are:

Minimum fence setback (from the top of streambank)	Lifespan	Cost-share rate	Buffer payment rate	Buffer payment cap
35'	10 years	80%	$80 per acre per year	$8,000 per contract
	5 years	75%	$80 per acre per year	$4,000 per contract

~~NOTE: For the purposes of calculating buffer acres, measurements are capped at 100 feet from the tope of streambank or 1/3 of the floodplain up to 300 feet.~~

NOTE: The Buffer Payment Cap is the maximum a participant can be paid per tract even when multiple SL-6W and/or WP-2W practices are approved in a given program year.

2. The maximum state cost-share payment for this practice will be $100,000.

3. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

4. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April 2019

ATTACHMENT 6

Approved by Stream Protection Subcomm 9/24/19

Name of Practice: STREAM EXCLUSION WITH NARROW WIDTH BUFFER AND GRAZING LAND MANAGEMENT
DCR Specifications for No. SL-6N

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's stream exclusion with grazing land management best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from grazing livestock on existing pastureland through livestock exclusion.

Provide livestock water systems, fencing and/or a hardened pad for winter-feeding that will improve water quality control erosion and eliminate direct access to or a direct runoff input to all live streams ~~where there is a defined water quality problem~~. **Stream exclusion fencing and an off-stream watering facility are required components of this practice**. Rotational grazing is an optional enhancement of this practice. The exclusion and/or rotational grazing system receiving cost share should reflect the least cost, technically feasible, environmentally effective approach to resolve the existing water quality problem.

B. Policies and Specifications

1. State cost-share and tax credit on this practice are limited to pastureland that borders a live stream or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. An exception to this may be granted in cases of severe environmental degradation occurring in and around features such as: springs, seeps, ponds, wetlands, or sinkholes, etc.

2. An applicant may not apply for or receive cost share funds for CRSL-6 and SL-6 practices funded by the Virginia Agricultural Best Management Practices Cost Share Program on the same fields.

3. A written management plan, to include a rotational grazing component if more than three new grazing units are created by the installation of interior fencing, and operation and maintenance plans must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed in the management plan should include water sources, environmental impact of winter-feeding pad location,

runoff from the feeding pad area, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

4. The buffer must be maintained as perennial species for the practice lifespan. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

5. To protect stream banks, state cost-share and tax credit are authorized for:
   i. Fencing to restrict stream access in connection with newly developed watering facilities. The stream exclusion fence must be placed a minimum of 10 feet or~~, up to~~ 25 feet, away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.
      a. Wetlands, intermittent springs, seeps, ponds connected to streams, sensitive karst features, and gullies adjacent to streams should be included in the buffer area.
      b. Isolated seeps, springs, wetlands, and ponds without direct connection to a stream may be fenced as well, but shall not be used as the sole criteria for determining eligibility for the SL-6 practice.
   ii. Stream crossings for grazing distribution or limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.
   iii. Fence chargers used to electrify permanent or temporary fencing.

6. To supply an alternative watering system to grazing livestock, state cost-share and tax credit are authorized for:
   i. Watering developments including:
      a. Wells, including a permanently affixed pump and pumping accessories;
         I) Districts may approve cost-share for dry wells and/or well location studies (geotechnical surveys) for the development of an alternative watering systems on a case by case basis and at the discretion of the District's Board.
         II) Pumps and equipment associated with portable and permanent watering systems. ~~Pumps may operate on purchased electrical current or alternative energy sources such as solar, battery, mechanical or hydraulic energy.~~ The payment for the selected pump, provision of power, and associated equipment should be the most cost effective for the specific site and application. The replacement costs of pumps and pumping equipment components which fail to

function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.

b. Connection to existing water supply
c. Development of springs, seeps, or stream pickups, including fencing of the area, where needed, to protect the development from pollution by livestock;
d. Ponds (if the only cost effective and technically feasible alternative for water source) including fencing of the area, where needed, to protect the development from pollution by livestock
e. Pumps and equipment associated with permanent watering systems.

ii. Watering facilities including:
   a. troughs,
   b. tanks/storage facilities/cisterns,
   c. hydrants
iii. Pipelines to convey water to watering facilities.
iv. Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.
v. Portable water supply system components such as troughs, pipe, etc. that are:
   a. Commercially available or farmer constructed,
   b. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,
   c. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and
   d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

7. To establish pasture management through rotational grazing, state cost-share and tax credit are authorized for:
   i. Interior fencing and watering facilities that distribute grazing to improve water quality, when combined with the livestock exclusion component of this practice on an adjacent stream or sensitive feature. Consideration must be given, in such cases, to the additional management requirements of such systems.
   ii. When more than three new grazing units are created by the installation of interior cross fencing, a written grazing management plan must be prepared and implemented. Input from the participant during the development of the plan is required.

8. To develop a hardened pad for winter-feeding of livestock state cost-share and tax credit are authorized for:

i. Grading and shaping, geotextile fabric, gravel, concrete or bituminous concrete.
ii. The winter-feeding hardened pad will be cost shared based upon the existing herd size. Cost-share funds cannot be used to accommodate expansion of the herd size.
iii. All other means of reducing the environmental impact of the winterfeeding operation must be explored and rejected, due to economic inefficiency or lack of space for relocation, before cost-share or tax credit can be approved.
iv. Cost-share funding for a hardened winter-feeding pad will only be authorized after the "Needs Determination Worksheet" has been completed, and all other methods of resolving the water quality degradation have been considered.
v. A nutrient management plan is required to properly manage the manure collected from around the feeding pad that addresses all enriched runoff and manure accumulations associated with the winter-feeding pad.

9. Portable or temporary system components (fencing, etc.) cannot be utilized in other areas or moved from fields utilized in the system plan. The replacement costs of portable components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.

10. The conservation planning process for developing an alternative watering system for livestock should include consideration of some means to provide water to the livestock during emergency conditions. Generators for emergency use may not receive cost-share.

11. The primary water use of the components which were installed with state cost share and tax credit must be for the purpose of providing water for livestock; however, incidental use is not prohibited. State cost-share and tax credit is not permitted for any electrical, structural, or plumbing supplies, including pipe, or associated construction costs for developing any incidental use. When an incidental use is anticipated, the District Board should consider the applicant's intent before approving the request. Incidental use will be documented in the applicant's file

12. No state cost-share and tax credit is authorized under the practice for any installation that is:
i. PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.
ii. To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.
iii. For boundary fencing or water supply systems used to establish new pastures not currently in use.

iv. For interior fencing and watering facilities to distribute grazing in fields not receiving exclusion fence. (Applicant may apply for SL-7).
v. For the purpose of providing water for the farm or ranch headquarters

13. Soil loss rates must be computed for all applications for use in establishing priorities for receiving cost share funds.

14. All permits or approvals necessary are the responsibility of the applicant.

15. This practice is subject to NRCS Standards, 382 Fence, 390 Riparian Herbaceous Cover, 472 Access Control, 516 Livestock Pipeline, 533 Pumping Plant, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility and 642 Water Well.

16. All practice components implemented must be maintained for a minimum of either 10 years or 15 years, as indicated in the table below, following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment rates shall be based on the approved or actual cost, whichever is less, and shall vary by the minimum fence setback and lifespan of the practice. The rates are:

Minimum fence setback (from the top of streambank)	**Lifespan**	**Cost-share rate**
25'	15 years	75%
	10 years	70%
10'	15 years	65%
	10 years	60%

2. The maximum state cost-share payment for this practice will be $100,000. Multiple SL-6s may be approved for funding in the same program year up to the cap.

3. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax

credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

4. If a participant receives cost-share from any source (state, federal, or private), only the percent of the total cost of the project that the applicant contributed is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as described above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April, 2019

Needs Determination Worksheet for Winter-Feeding Pad for _____ project

(To be completed by the conservationist; Use additional sheets as necessary)

This practice is not designed to be cost-shared as a stand-alone practice, but rather as a component to address a limited site specific situation, where an existing concentrated feeding location, due to its proximity to surface water or karst formations, concentrates manure and generates contaminated runoff that cannot be treated in a more cost-effective manner (including relocation of existing feeding site and fencing of stream buffers). All other potential more cost-effective approaches to reducing the water quality impact from the existing feeding operation must be implemented prior to consideration of construction of a winter-feeding pad (see Policies and Specification section B ~~6~~ 8.)

Describe the current water quality problem? Have all other more cost-effective BMP approaches been implemented? If not do not provide cost-share. List approaches that have been considered.

Is there another location (further from the stream) that this feeding operation might be relocated to? If there is, relocate there and do not provide cost-share or provide environmental reasons why it cannot be relocated.

How many and what types of livestock will be fed at the facility? This facility should not be approved for cost-share unless a significant nutrient or bacterial contamination issue can only be cost-effectively resolved through the construction of the feeding pad. Explain the source and document the bacterial contamination being treated.

Is there an existing vegetated buffer between current the winter-feeding location and the closest waterway, are livestock excluded from the buffer and water feature? If animals have not been excluded from all water features on this tract, do not provide cost-share.

Describe the condition of the riparian area (starting at the top of the bank and proceeding upland for a minimum of 200 feet). If there is sufficient buffer width (200') that adequately treats contaminated run-off before it reaches the stream, do not provide cost-share.

How much pasture, hay land and cropland is available in this operation where the stored manure may be spread? If the available land cannot handle the anticipated amount of manure generated a plan must be developed for disposing of the manure in a manner consistent with existing nutrient management techniques.

Pasture acres _____ Hay acres _____ Cropland _____

What level of conservation planning has been accomplished on your operation?

What level of Conservation Plan implementation is in place on this operation?

Will the establishment of a winter-feeding pad in conjunction with stream fencing resolve all erosion, and bacterial contamination issues associated with this grazing system and feeding operation (including potential contaminated runoff from the winter feeding facility)? **If not, do not provide cost –share funds.**

Completed by:

_____	_____	_____
Signature	Date	Title

ATTACHMENT 7

Approved by Stream Protection Subcomm 9/24/19

Name of Practice: STREAM PROTECTION
(FENCING WITH NARROW WIDTH BUFFER)
DCR Specifications for No. WP-2N

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's stream protection best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Protection by fencing along all live ~~water bodies and~~ streams in a field, to reduce erosion, sedimentation, and the pollution of water from agricultural nonpoint sources.

The purpose of this practice is to offer an incentive that will change land use or improve management techniques to more effectively control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality.

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
   i. Permanent fencing to protect streambanks from damage by domestic livestock. Cost-share may be authorized for fencing as a single eligible component that stands alone as a measure that will significantly improve water quality.
   ii. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to the water. The installation of livestock crossings and controlled hardened accesses is limited to small streams. When required, permits must be obtained by the applicant from authorities before the practice will be approved.
   iii. Fencing may be authorized as a single eligible component only if all of the following apply:
      (a.) The fence is placed a minimum of 10 feet or, ~~up to~~ 25 feet, away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.

(b.) Wetlands, intermittent springs, seeps and gullies adjacent to streams should be included in the buffer area. Isolated seeps, springs or wetlands may be fenced as well.

(c.) There is adequate natural or planted vegetation between the fence and the stream to serve as an effective filter strip to improve water quality.

2. The buffer must be maintained as perennial species for the practice lifespan. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

3. Cost-share and tax credit are not authorized for:
   i. Boundary fence if it is being used to bring new pasture into production. If the stream is the barrier currently confining the livestock, then fencing is allowed.
   ii. Interior cross fencing that does not exclude livestock from the stream.
   iii. Rebuilding of existing fence.
   iv. Temporary fencing.
   v. Hardened travel lanes that are not attached to a crossing or limited access.

4. The conservation planning process for developing an alternative watering system for livestock should include consideration of some means to provide water to the livestock during emergency conditions. Generators may not receive cost-share.

5. Wildlife, environmental, and livestock shade considerations must be given when designing the practice.

6. This is a one-time incentive payment not eligible for reapplication on the same site. Life span requirements can be waived if damaged by flooding.

7. Soil loss rates must be computed for all practices for use in establishing priority considerations.

8. This practice phase is subject to NRCS Standards 342 Critical Area Planting, 382 Fence, 390 Riparian Herbaceous Cover, 472 Access Control, 575 Trails and Walkways and 578 Stream Crossing.

9. All practice components implemented must be maintained for a minimum of either 5 years or 10 years, as indicated in the table below, following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following

the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment rates shall be based on the approved or actual cost, whichever is less, and shall vary by the minimum fence setback and lifespan of the practice. The rates are:

Minimum fence setback (from the top of streambank)	**Lifespan**	**Cost-share rate**
25'	10 years	70%
	5 years	65%
10'	10 years	60%
	5 years	55%

2. The maximum state cost-share payment for this practice will be $100,000.

3. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

4. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

ATTACHMENT 8

Approved by Stream Protection Subcomm 9/24/19

Name of Practice: EXTENSION OF WATERING SYSTEMS
DCR Specifications for No. SL-7

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's extension of watering systems best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A management system that will provide and ensure adequate surface cover protection to minimize soil erosion. The system will reduce sediment, nutrients and pathogen loads in runoff.

This practice will improve the quantity, quality and utilization of forage for livestock and will reduce the risk of surface and groundwater contamination from nonpoint source pollution from pastures by assuring that an adequate stand of forage is available to absorb runoff and reduce pollutants.

B. Policies and Specifications

1. All fields that receive cost share under this practice must have had all livestock previously excluded or concurrently being excluded with a minimum ~~35~~ 10' setback from all surface waters and sink holes. Any field that is part of a rotational grazing system is eligible.

2. This practice may be installed, in conjunction with a CREP CP-22 and CP-29 contracts, to implement rotational grazing on those fields receiving watering facilities to increase forage cover through the proper grazing and forage management techniques that will allow a pasture to rest and re-grow its cover. The system receiving cost-share should reflect the least costly, most technically feasible, environmentally effective approach to resolve the existing water quality problem. This practice cannot be used with a CREP CP-21 or CP-23, as these practices are applied on cropland only.

3. A written grazing management plan and operation and maintenance plan that includes all acres in the grazing system must be prepared, implemented and followed in accordance with NRCS Standard 528 Prescribed Grazing. Factors to be addressed should include water sources, environmental impact, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing

heights, carrying capacity of the land, and rotational schedules. Districts will monitor for compliance.

4. Flash grazing (allowing livestock to graze the excluded riparian area) is not allowed as a management alternative during the lifespan of this practice.

5. To supply water, state cost-share and tax credit are authorized for:

   i. Installing pipelines, watering facilities, hardened pads around watering facilities, storage facilities, cisterns, and troughs (portable or fixed) and pumping plant (if needed to meet pressure system requirements). When additional water is needed in CREP fields, the FSA CREP waiver process should be considered before authorizing VACS cost-share.

   ii. A water supply system can include a portable system to meet the management requirements necessary for systems operation rather than a large number of permanent water facilities.

6. Portable or temporary system components (fencing, etc.) cannot be utilized in other areas or moved from fields utilized in the system plan. The replacement costs of portable components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.

   A portable water supply system is any system or component (i.e. trough, pipe, etc.) that is:

   i. Commercially available or farmer constructed,
   ii. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,
   iii. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and
   iv. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

7. The primary water use of the components which were installed with state cost share and tax credit must be for the purpose of providing water for livestock; however, incidental use is not prohibited. State cost-share and tax credit is not permitted for any electrical, structural, or plumbing supplies, including pipe, or associated construction costs for developing any incidental use. When an incidental use is anticipated, the District Board should consider the applicant's intent before approving the request. Incidental use will be documented in the applicant’s file.

8. To facilitate rotational grazing systems, cost-share and tax credit are authorized for temporary or permanent interior fencing and fence chargers (electric or solar) used to electrify permanent or temporary fencing that is part of the grazing system.

9. Any installation of permanent fencing to bring previously unused fields or pastures into the grazing system is the responsibility of the participant, and cannot receive state cost-share or tax credit assistance. Permanent fencing may be installed under this practice to divide existing pasture units only to better manage rotational grazing.

10. No state cost-share and tax credit is authorized under the practice for any installation that is:

    i. PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.
    ii. To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.
    iii. For boundary fencing or water supply systems used to establish new pastures not currently in use.
    iv. For the purpose of providing water for the farm or ranch headquarters.

11. This practice is subject to NRCS Standards 382 Fence, 472 Access Control, 516 Livestock Pipeline, 528 Prescribed Grazing, 533 Pumping Plant, 561 Heavy Use Area Protection, 575 Trails and Walkways, 578 Stream Crossing, and 614 Watering Facility.

12. All practice components implemented must be maintained for a minimum of 10 years following the calendar year in installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting payment for this practice the recipient agrees to maintain the practice and the associated exclusion fencing for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to comply may result in reimbursement of state cost-share funds and/or tax credits. The associated exclusion fence may be eligible for a Continuing Conservation Initiative practice.

C. Rate(s)

1. ~~The state cost-share payment will not exceed 75% of the total eligible cost~~. Fields that have had livestock completely excluded from all surface waters at a minimum of 35’ will receive 75% cost share on eligible components. Fields which have had livestock excluded at less than 35 feet, but at a minimum of 10 feet, shall receive

50% cost share on eligible components. The maximum state payment for this practice is not to exceed ~~$50,000~~ $100,000 per landowner per year.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

3. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April 2019

ATTACHMENT 9

Approved by Stream Protection Subcomm 9-24-19

Name of Practice: PERMANENT VEGETATIVE COVER ON CRITICAL AREAS
DCR Specifications for No. SL-11

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's permanent vegetative cover on critical areas best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will promote land shaping and planting permanent vegetative cover on critically eroding areas.

The purpose of this practice is to improve water quality by stabilizing soil, thus reducing the movement of sediment and nutrients from the site.

B. Policies and Specifications

1. Cost-share and tax credit are authorized:
   i. For measures needed to stabilize a source of sediment, such as grading, shaping, and filling, the establishment (including minerals) of grasses (including filter strips), trees or shrubs, and ~~similar~~ measures that are determined to be practical for the solution of the problem.
   ~~i.~~ii. For permanent fencing needed to protect vegetative cover.
   ~~ii.~~iii. Only if the measures will significantly reduce erosion and maintain, or improve the quality of water in a stream, lake, pond, or other water source.
   ~~iii.~~iv. For measures performed on public roadsides only where these measures are essential to solve a farm-based pollution or conservation problem.

2. Livestock must be excluded after planting for a minimum of 12 months.

~~2.~~3. Consideration should be given to wildlife and enhancing the appearance of the area when establishing the protective measures.

~~3.~~4. Soil loss rates must be computed for all applications for use in establishing priority considerations.

~~4.~~5. This practice is subject to NRCS Standard 342 Critical Area Planting, 382 Fence, 484 Mulching.

~~5.~~6. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting

either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment, alone or when combined with any other cost-share program will not exceed 75% of the total eligible costs.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

3. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised March, 2016

ATTACHMENT 10

Approved by Stream Protection Subcomm 9/24/19

Name of Practice: SOD WATERWAY
DCR Specifications for No. WP-3

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's sod waterways practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A natural or constructed waterway shaped or graded and established in suitable vegetation, to safely convey water across areas of concentrated flow.

To improve water quality by reducing the movement of sediment and nutrients from agricultural non-point sources.

B. Policies and Specifications

1. Cost-share and tax credit are authorized for site preparation, grading, shaping, filling, and establishing permanent vegetative cover.

2. C~~Also, c~~ost-share is a l s o authorized for permanent fencing, subsurface drains or stone lined centers that are necessary for proper functioning of the waterways.

~~1.~~3. Livestock must be excluded after planting for a minimum of 12 months.

~~1.~~4. The cover may consist of sod-forming grasses, legumes, mixtures or grasses and legumes, or other types of vegetative cover that will provide the needed protection from erosion.

~~1.~~5. Close-sown small grains, annuals, or mulching may be used for temporary protection if followed by eligible permanent vegetative cover established by seeding or natural re-vegetation.

~~1.~~6. Soil loss rates must be computed for all applications for use in establishing priority considerations.

~~1.~~7. This practice is subject to NRCS Standard 412 Grassed Waterways, 342 Critical Area Planting, 382 Fence, 484 Mulching, 606 Subsurface Drain, 620 Underground Outlet. When a subsurface drain is used in conjunction with the practice, a wetlands determination shall be performed prior to installation.

~~1.~~8. All practice components implemented must be maintained for a minimum of 10

years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. A rate based on 75% of the cost of all eligible components has been established. Cost-share may be from state funds or a combination of state and other sources.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

3. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost is used to determine the tax credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised March, 2017

ATTACHMENT 11

Name of Practice: PRECISION NUTRIENT MANAGEMENT ON CROPLAND – PHOSPHORUS APPLICATION
DCR Specification for No. NM-5P

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of phosphorous management in the field than existing standard nutrient management practices.

This practice is ~~limited to~~intended for row crops, small grains, grain sorghum/milo, canola, specialty crops, produce, turf, ~~-~~and highly managed hayland including alfalfa hay production systems. This practice supports multiple enhanced nutrient management components such as zone or grid soil fertility samples, and all variable rate phosphorous application technologies based upon the soil test results of zone or grid (subfield) sampling. This practice may only be used on fields that apply phosphorous based upon test results identified in section B. 2. whether they have organic nutrient applications or not, with the exception of biosolids applications.

The variable rates of phosphorus listed below (in B.1.) apply to all row crops, small grains and highly managed hay crops. Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. This is an annual practice. Results from any test conducted to develop a phosphorous application prescription must be used to determine the phosphorous application rates for the current or following crop as appropriate, and that prescription must be followed during the application of phosphorous.

2. Phosphorous applications must be based upon the soil test results of zone or grid (subfield) sampling recommendations; other macro-micro nutrients may be applied concurrently. Plant tissue samples or petiole samples must be submitted at the correct growth stage and handled in accordance with laboratory guidelines to ensure sample viability and usability. The results of these tests may be used by the participant to support this practice.

3. Total phosphorus application rates shall not exceed the recommendations of the zone or grid sampling recommendations.

4. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the NM-5P - 2 Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner, and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

5. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones (zone shall be no larger than 20 acres and based upon soil type) grids (grid size shall be of 1 to 4 acres in size), or had mid-season testing such as variable rate or zone/grid (subfield) applications of phosphorus, based upon the zone or grid soil sampling recommendations.

6. The participant must provide written verification of the recommendation(s) and the resulting application(s) (examples include but are not limited to: results of laboratory test(s), a work order or detailed bill/invoice showing application rates, and an as applied application map of field(s) to the District within forty-five days of the phosphorous application to verify that the recommendations were followed

7. The participant must sign up for this practice before April 1st of each year that the practice will be utilized. 8. Fields that have received applications of biosolids within the previous 24 months are not eligible.

C. Rates

1. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

2. For participants who certify in writing (see language on last page of this specification) that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for precision application of phosphorus from any other funding source on the same acreage, a state cost share payment rate of 75% of the application charge, up to a

maximum amount of $8.00 per acre, for the acres receiving variable rate zone or grid (subfield) application of phosphorous on row crops, small grains or highly managed hayland production systems.

3. No per sample cost-share is available for zone/grid (subfield) soil fertility testing. Many commercial applicators include zone/grid (subfield) soil fertility sampling in their variable rate application charge.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised ~~March, 2018~~, October 2019

ATTACHMENT 12

Name of Practice:
NUTRIENT MANAGEMENT PLAN WRITING and REVISIONS
DCR Specification for No. NM-1A

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's nutrient management plan writing and revision best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

The development of a new nutrient management plan or the revision of a plan is needed to assure that implemented plans are accurate and up to date to minimize the impact of nutrients used in crop, pasture, specialty crop, and hay production to the environment.

The purpose of this practice is to offer financial assistance to farmers and private certified nutrient management planners for the development or revision of nutrient management plans. Participants are provided an incentive to annually revise plans to accurately reflect field conditions so that farmers can maintain eligibility for other cost-share practices.

B. Policies and Specifications

Plans receiving cost share funding for development and revision under this practice must be implemented at, not to exceed, recommended nutrient application rates on all agricultural production acres in the FSA Tract to be in compliance with this specification.

1. Definitions

i. A new plan is a nutrient management plan on acres that have never been planned or that were part of a previous plan that has been expired for over 18 months.
ii. An **amended** Nutrient Management Plan is a current NMP that has been updated to accurately match current field crops and/or pasture management practices.
iii. For this practice only, a **verified** nutrient management plan requires the planner and farmer review the plan and verify that the plan accurately matches current field crops, hay or pasture management practices.
iv. A **revised** Nutrient Management Plan is a plan that has expired within the last 18 months, and has been rewritten to accurately match actual field crops and management practices.
v. **Cropland** is defined in the Nutrient Management Training and Certification Regulations as land used for the production of grain, oilseeds, silage, or industrial crops.
vi. **Hay** is defined as a grass, legume, or other plants, such as clover or alfalfa, which is cut and dried for feed, bedding, or mulch.

vii. **Pasture** is defined as land that supports the grazing of animals for forages.

viii. **Specialty Crop** is defines as vegetables, tree crops, perennial vine crops, ornamentals, horticultural crops, turf, and other similar crops.

2. Eligibility

i. This practice applies to crop, hay, specialty crop, and pasture lands. Permanent pasture acres are eligible for cost-share under this practice.

ii. The plan must cover at least twelve months of crop and management practices after the signature date on the NMP cover sheet.

iii. NMP's approved by DCR as part of a VPA or VPDES permit meet the NMP component of this practice. To be eligible for cost-share funding, nutrient management plans must contain an aerial photograph, and scaled map. Such map shall include FSA Tract and Field numbers, and field acreages as outlined in (4VAC50-85-130 D. 2 & 3).

iv. Cropland, which may receive applications of pelletized Class A biosolids that do not require a permit, is eligible as these products are considered commercial fertilizer.

v. New plans shall be written for a period of one to three years. Plans shall be verified at one-year intervals for the life of the plan as needed to assure an accurate and up to date match of actual field crops or pasture management practices. Before cost-share payment can be made the following items must be submitted:

a. A complete copy of the nutrient management plan, containing the planner's Virginia Nutrient Management Certificate number;

b. An invoice for planning services of the private certified planner;

c. A completed Imported Manure Supplier Verification form (if applicable); and

d. The acreage receiving (i) mechanically applied on-farm generated animal manure or a combination of mechanically applied on-farm generated animal manure and commercial fertilizer and (ii) the acreage receiving only commercial fertilizer and/or imported animal manure must be submitted to the District before cost share reimbursement for writing the plan can be disbursed.

vii. Plans must be developed based on soil analyses taken within a three year period prior to the start date of the plan and must be performed by soil testing laboratories approved by DCR.

viii. Participants may redirect their cost-share payment to their private certified nutrient management planner by signing a written statement to that effect. A sample statement is attached to this specification.

ix. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards

and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner, and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

x. An applicant is eligible to apply for NM-1A in conjunction with RMP-1 for the development of a new NM plan or for revision of an expired plan.

xi. In order to verify implementation of the NMP, an applicant must provide to the District:

a. a completed verification form (DCR199-244) (04/18); or

b. a statement signed by the Nutrient Management Planner and producer that nutrients were applied during this period according to a NMP. For acres that have not had a NMP written for them within the last 12 months this requirement is waived.

3. Ineligible

i. The preparation of nutrient management plans as a component of biosolids (sewage sludge) application permitting is NOT ELIGIBLE for cost-share. Land that is permitted for biosolids applications is eligible for payment except for the year that the biosolids application occurs.

ii. Planners will not be paid for plans that are developed without the collaboration and support of the operator. The plan must be reviewed and signed by the certified planner when amended or revised as needed to match planned crop rotations and management practices of the operator.

iii. Any amended NMP that is included as part of a Resource Management Plan that receives cost-share funds from the RMP-1 BMP may not also receive cost-share funds under the NM-1A. This is an annual practice. The Cost-share payment will be issued annually. Applicants may reapply for NM-1A cost-share funding each year. There is no guarantee that cost-share funds will be approved by the local District.

C. Rate(s)

1. The cost share rate is $2.00 per acre for all eligible acres on a Tract that receive only commercial fertilizer, or a combination of imported animal manure and commercial fertilizer. Any manure applied must be from a farm within Virginia to receive cost share payment. Any Tract that receives only commercial fertilizer or a combination of imported animal manure and commercial fertilizer during the planning period should be paid $2.00/acre for those acres that are newly planned, modified or revised.

2. The cost share rate is $4.00 per acre for all acres on a Tract. Eligible acres include crop, hay, or pasture fields that receive the participant's mechanically applied on-farm generated animal manure, or a combination of the participant's mechanically applied on-farm generated manure and commercial fertilizer. Any Tract that receives mechanically applied on-farm generated animal manure or a combination

of mechanically applied on farm generated animal manure and commercial fertilizer during the planning period should be paid $4.00/acre for those acres that are newly planned, modified or revised. Participants must provide the District a copy of the current plan, which includes amendments NM -1A - 4 or revisions that match all management practices to be implemented in the cropping year to the District to receive the annual payment.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised ~~April~~ October 2019

ATTACHMENT 13

Name of Practice: PRECISION NUTRIENT MANAGEMENT ON CROPLAND – NITROGEN APPLICATION
DCR Specification for No. NM-5N

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of nitrogen management in the field than existing standard nutrient management practices. This practice is limited to row crops, small grains and highly managed hayland (see glossary for definition) production systems.

This practice supports multiple enhanced nutrient management components such as soil (pre-sidedress) nitrate tests (PSNT), and all variable rate nitrogen application technologies. This practice may only be used on fields that apply nitrogen based upon test results identified in section B, whether they have organic nutrient applications or not, with the exception of Biosolids applications.

Multiple split applications (more than two) of nitrogen applies to corn, cotton, small grains crops, sorghum/milo, canola, specialty crops, produce, turf, and highly managed hayland. This practice does apply to the late winter split application of nitrogen on small grains. The variable rates of nitrogen listed below (in B. 2.) apply to all row and highly managed hay crops (other than alfalfa). Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. This is an annual practice. Results from the test conducted to develop a nitrogen application prescription must be used to determine the nutrient application rates for the current or following crop as appropriate; that prescription must be followed during the rate of application of nitrogen.

2. At least one of the following identified components must be implemented to receive any cost-share payment for this practice.
    i. Soil (pre-sidedress) nitrate test (PSNT)
    ii. Variable rate nitrogen applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
    iii. Variable rate or zone application of nitrogen on row crops, specialty crops or small grains
    iv. Multiple (more than two) split applications of nitrogen on corn, cotton and small grains.

v. More than two applications of nitrogen on highly managed hayland production systems (other than alfalfa).
vi. Injection at sidedress. NM-5N - 2

3. On fields that have organic sources of nitrogen applied during the crop year or in previous years, or if high residual nitrogen levels are suspected from a previous crop, fall nitrogen rates shall be determined by a soil nitrate test.

4. Total nitrogen application rates (including pre-plant and sidedress) on corn shall not exceed 1 lb./bu. expected crop yield.

   Where this practice is applied, there must be a note to that effect in the narrative or elsewhere in the nutrient management plan indicating that the soils were sampled in an appropriate manner.

5. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner, and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

6. Acres receiving a zero application rate based on a PSNT result also qualify for a payment rate of $8 per acre.

7. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones, had mid-season testing such as soil (Pre-sidedress) Nitrate Testing (PSNT), or received Variable Rate or Zone applications of nitrogen, based upon the zone or grid soil nitrate sampling.

8. Participants shall provide written verification of the recommendation and the resulting application(s) (examples include but are not limited to: results of laboratory test, a work order or bill; and as-applied application map of field) to the District within forty-five days of the final nitrogen application to verify that the recommendations were followed.

9. The participant must sign up for this practice before April 1st of each year that the practice will be utilized.

10. Fields that have received applications of biosolids within the previous 24 months are not eligible.

11. Participants may not receive cost-share payments for NM-3C or NM-4 and NM-5N simultaneously on the same crop and field.

C. Rates

1. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

   For participants who certify in writing (see language on last page of this specification) that they will not utilize the tax credit available for the implementation of this practice and who are not receiving payment for precision application of nitrogen from any other funding source on the same acreage, a state cost share payment rate of 75% of the application charge, up to a maximum amount of $8.00 per acre per year, is available for the acres receiving the variable rate or zone application of nitrogen or multiple split applications of nitrogen on corn, cotton and small grain; or more than two applications on highly managed hayland.

2. Costs for a pre-side dress nitrate test (PSNT) or fall soil nitrate test sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of $8.00 per sample, up to 1 PSNT per field. No persample cost-share is available for zone soil fertility testing. Many commercial applicators include zone pre-sidedress soil fertility sampling in their variable rate application charge.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

ATTACHMENT 14

Name of Practice: SPLIT APPLICATION OF NITROGEN ON CORN
USING PRE-SIDEDRESS NITRATE TEST
DCR Specification for No. NM-3C

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Split Application of Nitrogen on Corn Using Pre-sidedress Nitrate Test (PSNT) practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will encourage the split application of nitrogen on corn. For fields receiving only nitrogen fertilizer; split applications will be based upon soil sample results and the Nutrient Management Plan (NMP). All secondary or split applications will be applied at a growth stage (15" to 24" tall) when the plant is entering the highest demand for nitrogen.

For fields that have previously received manure or biosolids applications according to the current NMP, a pre-sidedress nitrate test (PSNT) will be used to determine the amount of nitrogen, necessary in the split application.

B. Policies and Specifications

1. Eligibility:
   - i. Eligibility for this practice is limited to the length of the plan recommending the sidedress practice.
   - ii. Farmer must provide a written verification (such as a work order or bill) to the district within two weeks of the sidedress application when the application has been contracted out.
   - iii. The total number of corn acres specified by the nutrient management plan to be side dressed will determine the maximum acres to qualify, with payment being made only to those acres which actually received a secondary application of nitrogen.
   - iv. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner, and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   - v. District staff should utilize the NMP maps, nutrient balance sheets, and summary sheets to confirm practice implementation. A comparison

between crop recommendations and in field conditions shall be used when certifying conservation practice compliance.

2. The total number of corn acres specified by the nutrient management plan to receive manure will determine the maximum acres to qualify for cost-share payment for the PSNT. Cost-share payment for PSNT laboratory analysis will be made only for those PSNT tests that are submitted for laboratory analysis.
   i. The PSNT must be done when corn is approximately 12 inches in height.
   ii. PSNT samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

3. Checks to ensure compliance with this practice may be conducted by the District or appropriate agency personnel and failure to comply may result in forfeiture of cost-share funds.

4. Farmer must sign-up prior to April 1 and provide a written verification of contracted split application cost (including the PSNT results) to the district within two weeks of the sample analysis.

5. Application of any sidedress nitrogen must be made after the corn is at the 6-leaf stage or at least 15" in height.

6. Total nitrogen to be applied to the cornfield must be consistent with the nutrient management plan or determined by using a PSNT consistent with procedures contained in the Nutrient Management Training and Certification Regulations, 4VAC50-85 et. seq.

7. Acres receiving a zero application rate based on a PSNT result also qualify for a payment rate of $8 per acre. This is for manure only; biosolids are not eligible for payment.

8~~7~~. This is an annual practice.

C. Rate(s)

1. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

2. For participants who certify in writing (see language on last page of this specification) that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for a split application of nutrients to corn from any other source on the same acreage, a state cost share payment rate of 75% of the application charge up to a maximum amount of $6.00 per acre for the sidedress application, based on the contracted

split application acreage. Producers applying their own split applications will receive $6.00 per acre applied.

3. Costs for soil nitrate test sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of $8.00 per sample.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised ~~March, 2018~~October 2019

Certification from an Agricultural Best Management Practice Participant that a Tax Credit will not be Utilized

I, _____, understand that by participating in the practice(s) circled below that I am only eligible for tax credits in the event that I do not receive cost-share funding for the practice. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____.

Date: _____.

For District use only, circle one or more practices below according to participant sign-up:

NM-3C	NM-4	NM-5N	NM-5P	NM-6	SL-8
SL-8B	SL-8H	SL-15A	SL-15B	WQ-4	