

Recommended revisions to the VACS BMP Manual for FY2023 – Individual BMPs

Individual BMPs have been revised to reflect the recommendations discussed in the AgBMP TAC subcommittee tables or recommendations from the Department.

Recommendations and specifications have been organized by AgBMP TAC subcommittee.

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
1A	WP-4 WP-4B WP-4C	Create CCI practices (i.e. CCI-WP-4, CCI-WP-4B, CCI-WP-4C) that provide incentives for the continued maintenance and use of animal waste practices. This can be a simple per cubic foot of storage calculation and payment used to capture and record the proper storage, handling and utilization of animal wastes that improves water quality by allowing the application of waste at the proper rate, time and location. Looking toward the future and the need to keep practices as creditable in the Bay Model, especially costly animal waste practices, an investment in these CCI practices would help ensure recertification of these valuable, high dollar practices.	<p>The new CCI-WP-4 and CCI-WP-4C practice specifications have been created in order to provide incentives for the continued use and maintenance of animal waste storage facilities and associated composters the full text can be found below. The TAC ran out of time to work on a comparable practice for loafing lot management systems (e.g. WP-4B and WP-4LC), but will discuss this suggestion through the TAC process in Calendar Year 2022.</p> <p><u>Continuing Conservation Initiative</u></p> <p><u>Name of Practice: ANIMAL WASTE CONTROL FACILITIES-MAINTENANCE PRACTICE</u></p> <p><u>DCR Specifications for No. CCI-WP-4</u></p> <p><u>This document specifies terms and conditions for the Virginia Department of Conservation and Recreation’s Continuous Conservation Initiative Animal Waste Control Facilities best management practice which is applicable to all contracts entered into with respect to that practice.</u></p> <p>A. <u>Description and Purpose</u></p> <p><u>This practice prevents animal waste from entering watercourses and environmental sensitive areas.</u></p> <p><u>The purpose of this practice is to provide an incentive payment for the maintenance of existing Animal Waste Control Facilities.</u></p> <p>B. <u>Policies and Specifications</u></p>	Yes	PY2023

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<div><div>1.</div><div><u>Separate facilities for different animal groups shall be treated as individual practices. Liquid and dry manure storage serving the same group shall also be treated as individual practices.</u></div></div> <div><div>2.</div><div><u>This practice will maintain existing Animal Waste Control Facilities to prevent animal waste runoff from entering watercourses and environmentally sensitive features.</u></div></div> <div><div>3.</div><div><u>This practice must not be in lifespan from any other conservation program.</u></div></div> <div><div>4.</div><div><u>The maintenance of a functional Animal Waste Control Facility is required and the existing and continued use of the facility must be for storage and/or treatment of animal waste. The facility shall be effectively treating on site generated animal waste.</u></div></div> <div><div>5.</div><div><u>If the existing Animal Waste Control Facility does not adequately treat on site animal waste, either through undersized structures and/or management, the resource concern must be addressed prior to receiving payment for the CCI- Animal Waste Control Facility.</u></div></div> <div><div>6.</div><div><u>The Animal Waste Control Facility components must not be subject to floodwaters and/or overland flow.</u></div></div>		

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<div>7. <u>The Animal Waste Control Facility must include a permanent facility with a roof. Liquid manure pits do not require a roof.</u></div> <div>8. <u>The participant is responsible for inspecting and maintaining all Animal Waste Control Facility components associated with the practice during its lifespan. In the event these components are damaged or destroyed, it is the responsibility of the participant to repair or replace them with no additional CCI funding.</u></div> <div>9. <u>This practice is eligible for re-enrollment.</u></div> <div>10. <u>All practice components implemented must be maintained for a minimum of five 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.</u></div> <div>C. <u>Rate(s)</u></div>		

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>The state cost-share rate is a single payment of a base rate of \$5000 per Animal Waste Control Facility, as well as \$1.50 per animal unit for poultry and \$25 per animal unit for all other animal types, as calculated for annual manure production. A participant may be eligible for separate CCI payments if there are multiple Animal Waste Control Facilities serving different animal groups.</u></p> <p><u>D. Technical Responsibility</u></p> <p><u>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.</u></p> <p><u>Continuing Conservation Initiative</u> <u>Name of Practice: COMPOSTER FACILITIES-MAINTENANCE PRACTICE</u> <u>DCR Specifications for No. CCI-WP-4C</u></p> <p><u>This document specifies terms and conditions for the Virginia Department of Conservation and Recreation’s Continuous Conservation</u></p>		

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>Initiative Composter Facilities best management practice which is applicable to all contracts entered into with respect to that practice.</u></p> <p>A. <u>Description and Purpose</u></p> <p><u>This practice prevents waste from mortality composting facilities from entering watercourses and environmental sensitive areas.</u></p> <p><u>The purpose of this practice is to provide an incentive payment for the maintenance of existing mortality Composter Facilities.</u></p> <p><u>This practice only applies to poultry mortality composting facilities.</u></p> <p>B. <u>Policies and Specifications</u></p> <p>1. <u>This practice will maintain existing mortality Composter Facilities to prevent animal mortality runoff from entering watercourses and environmentally sensitive features.</u></p> <p>2. <u>This practice must not be in lifespan from any other conservation program.</u></p> <p>3. <u>The maintenance of a functional Composter Facility is required and the existing and continued use of the facility must be for composting of mortality. The facility shall be effectively treating on site generated animal waste.</u></p>		

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p>4. <u>If the existing Composter Facility does not adequately treat on site animal mortality, either through undersized structures and/or management, the resource concern must be addressed prior to receiving payment for the CCI-Composter Facility.</u></p> <p>5. <u>The Composter Facility components must not be subject to floodwaters and/or overland flow.</u></p> <p>6. <u>The Composter Facility must be a permanent facility with a roof, unless otherwise allowed by manufacturer's recommendations.</u></p> <p>7. <u>The participant is responsible for inspecting and maintaining all Composter Facility components associated with the practice during its lifespan. In the event these components are damaged or destroyed, it is the responsibility of the participant to repair or replace them with no additional CCI funding.</u></p> <p>8. <u>This practice is eligible for re-enrollment.</u></p> <p>9. <u>All practice components implemented must be maintained for a minimum of five 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</u></p>		

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>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.</u></p> <p><u>C. Rate(s)</u></p> <p><u>The state cost-share rate is a single payment of a base rate of \$250 per existing mortality composting bin. If other methods of mortality composting are used, such as drum composters or freezers, the payment shall be \$250 per bin as determined using the most recent poultry composting bin sizing worksheet based on the current operation.</u></p> <p><u>D. Technical Responsibility</u></p> <p><u>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.</u></p>		

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
2A	WP-1	Suggest raising the WP-1 cost-share rate from 75% to 85% or even 90%. Our area of the state is continually having major gulley erosion problems with excessive rain events. Unfortunately, many fields are leased by producers and can change hands every year which prevents the producer from signing up and taking responsibility for a contract. Most of the land is owned by absentee landowners who have a hard time spending \$40,000 to fix an erosion problem on a piece of land that they never see. We are having a hard time getting any of these major erosion problems fixed with our current cost-share specification. With the large amount of cost-share allocations and WIP III goals we feel it is very important to fix these issues and it would be very helpful in getting conservation on the ground with a higher percent cost-share.	<p>The TAC agrees with this suggestion and has proposed edits to the WP-1 specification as follows:</p> <p><i>C.1. A rate based on <u>90</u>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.</i></p>	Yes	PY2023
3A	WP-4B WP-4LL	Request that the 512-Pasture and Hayland Planting be added to the WP-4B & WP-4LL specifications as the establishment of loafing lots allows for and may require the conversion of cropland to grass.	<p>The TAC agrees with this suggestion and has proposed edits to the lists of referenced NRCS Standards as part of the WP-4B and WP-4LL VACS practice specifications.</p> <p>For the WP-4B, the following changes have been made:</p> <p><i>B.13. This practice is subject to NRCS Standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 356 Dike, 367 Roofs and Covers, 382 Fencing, 391 Riparian Forest Buffer, 393 Filter Strip, 412 Grassed Waterway, <u>512 Pasture and Hay Planting</u>, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 580 Stream</i></p>	Yes	PY2023

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p>bank and Shoreline Protection, 614 Watering Facility, 620 Underground Outlet, 632 Solid Liquid Separation Facility, 633 Waste Recycling, 634 Waste Transfer, and 642 Water Well.</p> <p>For the WP-4LL, the following changes have been made:</p> <p><i>This practice is subject to NRCS standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 382 Fence, 393 Filter Strip, 412 Grassed Waterway, <u>512 Pasture and Hay Planting</u>, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Protection, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 620 Underground Outlet, 633 Waste Recycling, 634 Waste Transfer, 642 Water Well.</i></p>		
4A	WP-4B	Consider modifying the WP-4B specification to refer to manure storage as an eligible component to be consistent with the WP-4LL. Currently, the waste storage associated with a manure collection area of a loose housing facility is not included as part of the WP-4B practice. Making the language in these two specifications match will ensure that interpretation is clear and consistent.	<p>The TAC agrees that this language needs clarifications and has proposed edits to the WP-4B as follows:</p> <p><i>A. Purpose and Description</i></p> <p><i>This practice is designed to prevent those areas exposed to heavy livestock traffic on dairy operations from experiencing excessive manure and soil losses due to the destruction of ground cover. Unimproved loafing lots that are used for dairy herd exercise and loafing are usually denuded of vegetation and harbor undesirable plants.</i></p> <p><i>The intent of this practice is to prevent manure and sediment runoff from entering watercourses and sensitive karst areas and to capture a portion of the manure as a resource for other uses such as crop fertilizer. This is accomplished by dividing the area into lots. The dairy cattle are rotated from lot to lot as is necessary to maintain a vegetative cover.</i></p>	Yes	PY2023

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><i>One lot is designated as a sacrifice area for use in periods of wet weather. <u>If a sacrifice area is impractical due to soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot. The sacrifice lot or covered facility includes a feeding area as well as a bedded area with a manure storage area if needed. This practice is for dairy cattle only.</u></i></p> <p><i><u>B.10. If a loose housing structure is included as part of the practice, manure storage associated with the manure collection area of the feed lane should be considered as an eligible component of the practice.</u></i></p> <p><i><u>i. The applicant is required to sign a Dry Manure Storage Structure Agreement (DCR199-86, Revised 03/18) or similar District agreement which addresses the minimum criteria prior to receiving any funds.</u></i></p> <p><i><u>ii. When a feed lane is utilized, manure storage shall be sized based upon livestock time at feed bunks, up to six (6) months storage of existing need.</u></i></p> <p>An additional minor changes to the WP-4B was recommended by the AC as follows:</p> <p><i><u>B.5.ii. The sacrifice area should not be sized to exceed between 600 and to 650 square feet per animal (1,000 lb. equivalent). It should be sloped between 1% minimum to 8% minimum.</u></i></p>		
5A	WP-6	Eliminate the WP-6 Agricultural Chemical and Fertilizer Handling Facility from the VACS Program as it is one of the few specifications that truly does not address an existing resource concern.	<p>The TAC discussed the fact that this practice does not address an existing resource concern, but is a preventative practice and therefore out of the scope of the VACS Program. Additionally, it is rarely utilized by farmers in Virginia with the last completed contract paid out in Program Year 2017.</p> <p>The TAC did agree that the WP-6 should not be a cost-share practice as a part of the VACS Program, but decided to move it to a tax credit-only</p>	No	N/A

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p>practice instead of eliminating it altogether, mainly for the benefit of the DEQ Agricultural BMP Loans Program.</p> <p>DCR abstained from this TAC vote and would prefer to eliminate the WP-6 practice altogether as it is not consistent with the rest of the VACS Program that solves existing water quality problems on a field-by-field basis.</p>		

MATRIX OF DEFERRED ANIMAL WASTE RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring
8A	WP-4	Include the following NRCS Practice Standards into one or more of VACS specifications: 360 Waste Storage Facility Closure, 521 Pond Sealing or Lining - Geomembrane or Geosynthetic Clay Liner, 520 Pond Sealing or Lining, Compacted Soil Treatment, and 522 Pond Sealing or Lining, Concrete. The 360 Practice is used to properly demolish an existing waste storage facility, typically liquid manure pits or lagoons. The three others are options to line an existing leaking manure pit/lagoon based on the best way to line or seal them depending on environmental and soil conditions.	The Virginia Department of Environmental Quality representative to the TAC stated this was DEQ's suggestion and the reason was that the closing of pits cannot be included in the DEQ Agricultural BMP Loans Program unless it is part of the VACS Manual. The Animal Waste Subcommittee agreed that more research and information was needed. Maybe there is a way to include items in the DEQ loan program that aren't cost share eligible in lieu of adding practices to the VACS Manual just so they can be eligible for DEQ loans.

MATRIX OF TABLED ANIMAL WASTE RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
17S		Create a summer cover crop practice to incentivize the reseeding of sacrifice areas to ensure protection from erosion and reduction of nutrient losses.	This suggestion has been around for several years and has been passed amongst three different Subcommittees of the TAC (i.e. Cover Crop/Nutrient Management, Stream Protection/Forestry and finally Animal Waste). After discussion, the Subcommittee decided to table this item. The small acreage of such areas needing reseeding would likely prohibit sign-up. A present need for the inclusion of such a practice into the VACS Program was not seen and thus the suggestion died in Subcommittee.
7A	WP-4LC	In practice WP-4LC, remove the part of B.2.vi that says, "or shall be converted to cropland and managed to a soil loss of T and managed in compliance with the SL-15B practice specification". As the description states, "The intent of this practice is to improve water quality by preventing manure and sediment runoff from entering watercourses and karst areas"; therefore, allowing an annual cropping system will not provide the same protection to water quality, sediment runoff, and sensitive karst areas as a perennial sod will. Soil loss to T is not acceptable on ground that has a history of heavy livestock traffic, experiencing excessive nutrient and soil loss.	The Animal Waste Subcommittee decided to allow the land to be cropped to provide additional incentive for the producer to not put livestock back on the acres in question. Additionally, the WP-4LC practice specification is still very new and the Subcommittee feels it would be best to see how this works out before making changes.

MATRIX OF ANIMAL WASTE RECOMMENDATIONS TABLED BY DCR			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
6A	WP-4	Consider allowing poultry producers to apply for and receive cost-share for poultry litter sheds and mortality composters BEFORE poultry is placed on a new poultry farm for the first time. Currently, DCR rules preclude cost-share until a “resource concern” exists, which means a poultry flock must have been placed. It would be more efficient and meet resource concerns more effectively if poultry producers were allowed to apply for and secure cost-share in conjunction with construction of new poultry houses rather than waiting for placement of poultry. In this regard, the litter shed and composter facilities would be ready for use at the time of bid placement, at the time the resource concern truly begins. DEQ has reported to VPF the existence of problems on new poultry farms concerning proper mortality disposal. This is because farmers that wish to use cost-share for litter-shed and mortality disposal systems must wait until birds are placed, causing them to be without a proper system from the time of such placement until they can apply for and receive cost-share.	The Virginia Poultry Federation indicated that while their organization submitted this suggestion to the TAC, it was actually the Virginia Department of Environmental Quality that had originally come up with the idea. This would help permitted poultry operations to not cause a water quality concern when birds were placed. However, this suggestion would also be contrary to the rest of the VACS Program which targets the most egregious water quality resource concerns for clean-up first; there is also a legitimate argument that the DEQ permitting process should cover such issues. After much debate and greatly divided opinions, zero members of the Animal Waste Subcommittee were willing to bring the suggestion to a vote for advancement to the Full TAC. A subsequent vote to table failed and a final vote to defer also failed. Since there was no will within the Subcommittee to advance the issue, table it or even defer it, DCR recommend tabling this issue.

Continuing Conservation Initiative

Name of Practice: ANIMAL WASTE CONTROL FACILITIES-MAINTENANCE PRACTICE
DCR Specifications for No. CCI-WP-4

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Continuous Conservation Initiative Animal Waste Control Facilities best management practice which is applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice prevents animal waste from entering watercourses and environmental sensitive areas.

The purpose of this practice is to provide an incentive payment for the maintenance of existing Animal Waste Control Facilities.

B. Policies and Specifications

1. Separate facilities for different animal groups shall be treated as individual practices. Liquid and dry manure storage serving the same group shall also be treated as individual practices.
2. This practice will maintain existing Animal Waste Control Facilities to prevent animal waste runoff from entering watercourses and environmentally sensitive features.
3. This practice must not be in lifespan from any other conservation program.
4. The maintenance of a functional Animal Waste Control Facility is required and the existing and continued use of the facility must be for storage and/or treatment of animal waste. The facility shall be effectively treating on site generated animal waste.
5. If the existing Animal Waste Control Facility does not adequately treat on site animal waste, either through undersized structures and/or management, the resource concern must be addressed prior to receiving payment for the CCI-Animal Waste Control Facility.
6. The Animal Waste Control Facility components must not be subject to floodwaters and/or overland flow.
7. The Animal Waste Control Facility must include a permanent facility with a roof. Liquid manure pits do not require a roof.

8. The participant is responsible for inspecting and maintaining all Animal Waste Control Facility components associated with the practice during its lifespan. In the event these components are damaged or destroyed, it is the responsibility of the participant to repair or replace them with no additional CCI funding.
9. This practice is eligible for re-enrollment.
10. All practice components implemented must be maintained for a minimum of five 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)

The state cost-share rate is a single payment of a base rate of \$5000 per Animal Waste Control Facility, as well as \$1.50 per animal unit for poultry and \$25 per animal unit for all other animal types, as calculated for annual manure production. A participant may be eligible for separate CCI payments if there are multiple Animal Waste Control Facilities serving different animal groups.

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.

Continuing Conservation Initiative
Name of Practice: COMPOSTER FACILITIES-MAINTENANCE PRACTICE
DCR Specifications for No. CCI-WP-4C

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Continuous Conservation Initiative Composter Facilities best management practice which is applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice prevents waste from mortality composting facilities from entering watercourses and environmental sensitive areas.

The purpose of this practice is to provide an incentive payment for the maintenance of existing mortality Composter Facilities.

This practice only applies to poultry mortality composting facilities.

B. Policies and Specifications

1. This practice will maintain existing mortality Composter Facilities to prevent animal mortality runoff from entering watercourses and environmentally sensitive features.
2. This practice must not be in lifespan from any other conservation program.
3. The maintenance of a functional Composter Facility is required and the existing and continued use of the facility must be for composting of mortality. The facility shall be effectively treating on site generated animal waste.
4. If the existing Composter Facility does not adequately treat on site animal mortality, either through undersized structures and/or management, the resource concern must be addressed prior to receiving payment for the CCI- Composter Facility.
5. The Composter Facility components must not be subject to floodwaters and/or overland flow.
6. The Composter Facility must be a permanent facility with a roof, unless otherwise allowed by manufacturer's recommendations.
7. The participant is responsible for inspecting and maintaining all Composter Facility components associated with the practice during its lifespan. In the event these components are damaged or destroyed, it is the responsibility of the participant to repair or replace them with no additional CCI funding.

8. This practice is eligible for re-enrollment.
9. All practice components implemented must be maintained for a minimum of five 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)

The state cost-share rate is a single payment of a base rate of \$250 per existing mortality composting bin. If other methods of mortality composting are used, such as drum composters or freezers, the payment shall be \$250 per bin as determined using the most recent poultry composting bin sizing worksheet based on the current operation.

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.

Name of Practice: SEDIMENT RETENTION, EROSION, OR WATER CONTROL
STRUCTURES
DCR Specifications for No. WP-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Sediment Retention, Erosion, or Water Control Structures best management practice that are applicable to all contracts entered into with respect to that practice

A. Description and Purpose

This practice will promote structures that will collect and store debris or control the grade of drainage ways.

The purpose of this practice is to improve water quality by reducing the movement of sediment and materials from agricultural land to receiving streams.

B. Policies and Specifications

1. Cost-share and tax credit are authorized:
 - i. For sediment detention or retention structures, such as erosion control dams (excluding water storage dams), desilting reservoirs, sediment basin, debris basins, or similar structures.
 - ii. For channel linings, chutes, drop spillways, and pipe drops that better manage excess water.
 - iii. For fencing or otherwise protecting a vegetative cover (including mulching needed to protect the structure) and for leveling and filling to permit the installation of the structure.
 - iv. For installing sediment retention structures on public roadsides only where these structures are essential to solve a farm-based pollution or conservation problem.
 - v. Only if the measures will contribute significantly to maintaining or improving soil or water quality.
2. Cost-share or tax credit is not authorized for irrigation structures that are part of a distribution system for irrigation water.
3. Consideration should be given to the needs of wildlife when establishing the protective measures.
4. Soil loss rates must be computed for all applications for use in establishing priority considerations.

5. Direct discharge of runoff from crop fields, without filtering, is not allowed under this specification. A 10 foot minimum grass filter must be provided at the pipe inlet in the form of an apron adjacent to the pipe or a permanently vegetated diversion or waterway.
6. This practice is subject to the specifications of NRCS Standards 350 Sediment Basin, 362 Diversion, 382 Fence, 410 Grade Stabilization Structure, 468 Lined Waterway or Outlet, 606-Subsurface Drain, 620-Underground Outlet, and 638 Water and Sediment Control Basin. When a subsurface drain is used in conjunction with this practice, a wetlands determination shall be performed prior to installation.
7. 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 ~~90~~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, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
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 2022~~+~~

Name of Practice: DAIRY LOAFING LOT MANAGEMENT SYSTEM
DCR Specifications for No. WP-4B

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Dairy Loafing Lot Management System best management practice which are applicable to all contracts entered into with respect to that practice.

A. Purpose and Description

This practice is designed to prevent those areas exposed to heavy livestock traffic on dairy operations from experiencing excessive manure and soil losses due to the destruction of ground cover. Unimproved loafing lots that are used for dairy herd exercise and loafing are usually denuded of vegetation and harbor undesirable plants.

The intent of this practice is to prevent manure and sediment runoff from entering watercourses and sensitive karst areas and to capture a portion of the manure as a resource for other uses such as crop fertilizer. This is accomplished by dividing the area into lots. The dairy cattle are rotated from lot to lot as is necessary to maintain a vegetative cover. One lot is designated as a sacrifice area for use in periods of wet weather. ~~This practice is for dairy cattle only.~~ If a sacrifice area is impractical due to soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot. The sacrifice lot or covered facility includes a feeding area as well as a bedded area with a manure storage area if needed. This practice is for dairy cattle only.

B. Policies and Specifications

1. A management plan and practice design ~~are~~^{is} to be developed with consultation from a qualified consultant, VCE, NRCS and/or District.
2. A minimum of three grassed loafing paddocks are required. Each grassed loafing paddock will be sized based on soil type, topography and herd size, not to exceed a stocking rate of twenty cattle (1,000 lb. EAU) per acre, and be maintained in permanent forage.
3. All live streams must be fenced from livestock use in the loafing paddocks and sacrifice area. A minimum 35 foot buffer must be maintained.
4. Concrete walkway(s) with curbing or other hardened walkway(s) (~~crusher run is not an acceptable surface material~~) may be installed to facilitate herd movement from the barn to the loafing lots. Crusher run is not an acceptable surface material. Slope ~~is to~~^{shall} be no greater than 8%. See VCE publication on installing dairy lanes.
5. A sacrifice area is required unless adequate housing facilities are available (e.g. free stall barns):
 - i. Sacrifice area (if needed) must be scraped periodically.

- ii. The sacrifice area should ~~not~~ be sized ~~to exceed~~ between 600 ~~and~~ 650 square feet per animal (1,000 lb. equivalent). It should be sloped between 1% minimum to 8% maximum.
 - iii. Divert surface water away from the sacrifice area.
 - iv. Provide filter strip per NRCS Standard 393 to filter runoff from the sacrifice area.
6. In order for the forage to take up nutrients such as nitrogen, it must be managed for growth and harvested for hay when possible. Dry cows or other grazers can be used to remove forage growth.
7. Critical eroding and sensitive areas will be fenced out and permanent cover established.
8. If a sacrifice lot is impractical due soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot:
 - i. All other potential more cost-effective approaches to reducing the water quality impact from the unimproved loafing lot must have been explored and rejected due to economic inefficiency or lack of space for relocation before cost-share or tax credit can be approved for constructing a loose housing structure.
 - ii. Cost-share funding for a loose housing structure will only be authorized if a *Risk Assessment for Water Impairment from Concentrated/Feeding/Loafing Livestock Areas* has been completed and a score of 120 or greater has been obtained.
 - iii. General Design guidelines for Loose Housing Structures
 - a) Bedded pack space requirements:
 - 60 sq. ft. per heifer minimum
 - 100 sq. ft. per lactating cow minimum
 - 120 sq. ft. per dry cow
 - b) If the loose housing structure is to have a roof, wind and snow loads shall be as specified in NRCS 367 Roofs and Covers or ASAE EP288.5 Agricultural Building Snow and Wind Loads. A Professional Engineer shall certify roof designs. If the facility is to serve as part of a foundation or support for a building, the total load shall be considered in the structural design.
9. A Nutrient Management Plan developed in accordance with requirements for Nutrient Management Plan content and procedures, as stipulated in the Virginia Nutrient Management Training and Certification Regulations, is required for either land application or a planned waste management system for any other uses of manure produced. The Nutrient Management Plan should address all the acreage that the participant farms ~~unto~~ onto which manure from the loafing lot system will be applied. The Nutrient Management Plan should be implemented and maintained for the life of the practice. ~~Design~~ sStorage capacity of animal waste facilities should be coordinated with the Nutrient Management Plan so that adequate storage capacity is installed for the specific cropping system.

10. If a loose housing structure is included as part of the practice, manure storage associated with the manure collection area of the feed lane should be considered as an eligible component of the practice.

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

ii. When a feed lane is utilized, manure storage shall be sized based upon livestock time at feed bunks, up to six (6) months storage of existing need.

10.11. Cost-share is authorized for watering facilities in the loafing lots.

11.12. 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 upon which this practice will be implemented (including all associated 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; 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).

12.13. This practice is subject to NRCS Standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 356 Dike, 367 Roofs and Covers, 382 Fencing, 391 Riparian Forest Buffer, 393 Filter Strip, 412 Grassed Waterway, 512 Pasture and Hayland Planting, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, ~~580 Stream bank and Shoreline Protection~~, 614 Watering Facility, 620 Underground Outlet, 632 Solid Liquid Separation Facility, 633 Waste Recycling, 634 Waste Transfer, and 642 Water Well.

13.14. 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.

2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

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 202~~2~~⁴

Name of Practice: ANIMAL WASTE CONTROL FACILITY FOR CONFINED LIVESTOCK
OPERATIONS
DCR Specifications for No. WP-4LC

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Animal Waste Control Facilities for Confined Livestock Operations best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides 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 environmentally sensitive features such as karst areas, as well as ~~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.

Each covered facility 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 all acres associated with the confined livestock is required. All associated acres must be re-vegetated. This practice is not intended for grazing operations.

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. The District shall consider all existing animal waste storage facilities on the same property when sizing a new manure storage facility. The District should determine on a case-by-case basis whether any existing manure storage facilities (cost-shared or non-cost-shared) are adequate for continued manure storage. Existing storage deemed adequate shall be deducted from the total storage need calculation to determine the amount of additional storage eligible for cost share.
 - ii. 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.

- iii. 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.
- iv. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by a DCR Agricultural BMP Engineer.
- v. The confinement structure shall be managed as either a:
 - a. Bedded Pack
 - The pack area must be maintained to ensure dry conditions for livestock. Dry material, tillage, ventilation and/or aeration may be needed to maintain proper bedding conditions.
 - Does not require a separate manure storage, but it must have walls a minimum of four feet high to contain bedded pack.
 - Manure storage for bedded pack area is not authorized, but storage for manure captured from feed lanes is an eligible component.
 - b. Manure Pack
 - The pack area shall be maintained to prevent any materials from migrating from the structure limits as to impact water quality. Regular scraping and/or the addition of bedding is required to stabilize the manure.
 - A separate storage component is required to store up to 6 months of manure production.
- vi. All associated acres shall be re-vegetated to ensure permanent grass cover, (reference SL-11 practice specification), or shall be converted to cropland and managed to a soil loss of T and managed in compliance with the SL-15B practice specification. For backgrounding and finishing operations, only the acres associated with the concentrated feeding that contribute to the resource concern must be converted.
- vii. This practice is not applicable on the same acreage associated with an active stream exclusion contract that is under lifespan, winter feeding facility, or feeding pad.

3. Cost-share and tax credit is authorized for:

- i. Pack area sized based on the current herd size and planned feeding method, not to exceed 75 sq. ft. per animal unit. Pack area feeding or feed lane shall be sized based on the planned feeding method.
- ii. Feed lane for a bedded pack facility. When a feed lane is utilized, a 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;
 - b. Only where a no-discharge permit for a waste storage facility is not required.
 - vii. Appurtenances needed to contain manure within the facility.
4. Cost-share and tax credit is not authorized for:
- 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. Grazing operations
 - v. Dry material, tillage, ventilation and/or aeration.
 - vi. Concrete floors for bedded pack facilities.
 - vii. Feed lane and associated manure storage for a manure pack facility.
5. Compliance checks are a required component of this practice and shall be performed in accordance with the schedule below:
- i. Year 1 – All facilities and associated fields shall be checked to ensure compliance with this specification.
 - ii. If compliance is confirmed in Year 1, the facility shall be checked again in Years 4, 8 and 12.
 - iii. If the facility is found to be non-compliant, the identified Practice Failures Procedure in the VACS Manual shall be followed. Once found to be in compliance, the facility shall be checked one year after compliance is achieved. If compliance is confirmed, checks shall resume in Years 4, 8 and 12.
6. The sizing calculations of the practice shall be reviewed and approved by the DCR Agricultural 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.
7. All appropriate local and state permits must be obtained before beginning construction.
8. 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 on which this practice will be implemented (including all associated 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; 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).

9. This practice is subject to NRCS standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 412 Grassed Waterway, 558 Roof Run Off Structure, 561 Heavy Use Protection, 620 Underground Outlet, 633 Waste Recycling and 634 Waste Transfer.
10. 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.
2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
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 2022⁴

Name of Practice: LOAFING LOT MANAGEMENT SYSTEM WITH MANURE
MANAGEMENT (EXCLUDING BOVINE DAIRY)
DCR Specifications for No. WP-4LL

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

This practice creates 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.

The sacrifice lot or covered facility 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 feet minimum buffer.

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, Revised 03/18) or similar District agreement which addresses the minimum criteria prior to receiving any funds.

- iii. A minimum of three grassed loafing lots are required and 60% cover on these lots must be maintained at all times.
- iv. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by the DCR Agricultural BMP Engineer.
- v. Hardened walkway(s) may be installed to facilitate herd movement from the barn to the loafing lots. The walkway must be designed and installed in accordance with NRCS Standard 575, Trails and Walkways.
- vi. A sacrifice area is required unless adequate housing facilities are available (e.g. free stall barns).
 - a. Uncovered sacrifice areas must be scraped periodically and shall not exceed 600 square feet per animal unit (1000-lb. equivalent). Maximum slope shall not exceed 8%. Divert surface water away from the sacrifice area.
 - Provide filter strips per NRCS standard 393 to filter runoff from the sacrifice area.
 - Manure collected from the sacrifice area must be properly stored in an adequately sized structure. Existing storage structures shall be considered when sizing the manure storage facility.
 - b. Covered sacrifice areas shall not exceed 75 square feet per animal unit (1000-lb. equivalent).
- vii. Manure may be managed as:
 - a. Bedded Pack:
 - The pack area must be maintained to ensure dry conditions for livestock. Dry material, tillage, ventilation and/or aeration may be needed to maintain proper bedding conditions.
 - Does not require a separate manure storage, but it must have walls a minimum of 4 feet high to contain bedded pack.
 - Manure storage for bedded pack area is not authorized, but storage for manure captured from feed lanes is an eligible component.
 - b. Manure Pack:
 - The pack area shall be maintained to prevent any materials from migrating from the structure limits as to impact water quality. Regular scraping and/or the addition of bedding is required to stabilize the manure.
 - A separate storage component is required to store up to six months of manure production.
 - c. When a feed lane is utilized, a dry stack manure storage area is authorized, sized based upon livestock time at feed bunks, up to six (6) months storage of existing need.

3. Cost-share and tax credit is authorized for:
 - i. Roofs over the feeding area, manure storage area and roof runoff system.
 - ii. A hardened sacrifice area.
 - iii. Fencing, walkways, and water system components to provide functional lots.
 - iv. Individual components of animal waste systems, only if the DCR Ag BMP Engineer determines that the component stands alone as a measure that will significantly improve water quality.
 - v. Water system components to provide a functional structure.
 - vi. Seeding of permanent vegetative cover on acreage associated with this practice.
 - vii. Filter strips in accordance with NRCS Standard 393.
4. Cost-share and tax credit is not authorized for:
 - i. Storage of manure generated outside of this facility.
 - ii. Operations with sufficient grazing acreage.
5. Compliance checks for both the covered and uncovered sacrifice lot and the grassed loafing lots are a required component of this practice and shall be performed in accordance with the schedule below:
 - i. Year 1 – All facilities and associated fields shall be checked to ensure compliance with this specification.
 - ii. If compliance is confirmed in Year 1, the facility shall be checked again in Years 4, 8 and 12.
 - iii. If the facility is found to be non-compliant, the identified Practice Failures Procedure in the VACS Manual shall be followed. Once found to be in compliance, the facility shall be checked one year after compliance is achieved. If compliance is confirmed, checks shall resume in Years 4, 8 and 12.
6. The sizing calculations of the practice shall be reviewed and approved by the DCR Agricultural 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.
7. All appropriate local and state permits must be obtained before beginning construction.
8. 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 on which this practice will be implemented (including all associated 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; 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).

9. This practice is subject to NRCS standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 382 Fence, 393 Filter Strip, 412 Grassed Waterway, 512 Pasture and Hayland Planting, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Protection, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 620 Underground Outlet, 633 Waste Recycling, 634 Waste Transfer, 642 Water Well.
10. 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. Rates

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.
2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
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 2024

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
1C		Consider adding a new cover crop specification that allows for the use of manure in the fall on acres that will be killed in the spring. With the focus on WIP III goals, Districts need as many options as possible to get conservation on the ground. The VACS Program is tied to and driven by the Chesapeake Bay Model and thus there is a need for practices to be tied to the standards associated with the Model. It is our understanding from review of the WIP III BMP forecasting spreadsheet, that a killed cover crop that received manure is creditable. We encourage DCR to examine Bay Model creditable cover crop options and make as many of these options available through the VACS Program as possible.	<p>The TAC agrees with this suggestion and created the following new VACS specification in order to address the creditable offering of a cover crop with fall manure applied:</p> <p style="text-align: center;"><u><i>Name of Practice: SMALL GRAIN AND MIXED COVER CROP FOR NUTRIENT MANAGEMENT AND RESIDUE MANAGEMENT WITH FALL MANURE APPLICATION</i></u></p> <p style="text-align: center;"><u><i>DCR Specifications for No. SL-8M</i></u></p> <p><u><i>This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management with Fall Manure Application Best Management practice which are applicable to all contracts entered into with respect to that practice.</i></u></p> <p><u><i>A. Description and Purpose</i></u></p> <p><u><i>Cost-share or tax credit are provided to establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater. This type of cover crop is planted upon cropland where manure is applied following the harvest of a summer crop and prior to cover crop planting. The crop may not be harvested in the spring.</i></u></p> <p><u><i>This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients, reduce erosion and the leaching of nutrients to ground water. The purpose is to increase above- and below-ground biomass returned to the soil by increasing the amount of manure amendments while minimizing nutrient loss risk, thereby providing adequate fertility to grow the extra biomass. This BMP is designed to utilize</i></u></p>	Yes	PY2023

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>the maximum amount of residual nitrogen from previous surface nutrient applications and in the first three feet of the soil profile.</u></p> <p><u>B. Policies and Specifications</u></p> <ol style="list-style-type: none"> <u>1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.</u> <u>2. Application of manure (organic) amendments are allowed between the harvesting of the previous crop and prior to planting.</u> <u>3. 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 on which this practice will be implemented. 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).</u> <u>4. A current Nutrient Management Plan must be on file with the District Prior to issuing cost share. Cost-share is</u> 		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>available for all acres with application rates in compliance with the NMP Spreading Schedule. Acres that receive application rates above NMP are not eligible for cost-share.</u></p> <p>5. <u>No nutrients from any source are allowed between the harvesting of the previous crop and March 1 of the next calendar year, except that use of manure (with less than 40 lbs. N per acre tested) is permitted if all of the following conditions are met:</u></p> <ul style="list-style-type: none"> i. <u>Inadequate manure storage is available for the winter at the source;</u> ii. <u>Manure is applied in accordance with a Nutrient Management Plan prepared by a Virginia certified Nutrient Management Planner.</u> iii. <u>New plans shall be written for a period of one to three years. Before cost-share payment can be made the following items must be submitted:</u> <ul style="list-style-type: none"> a. <u>A complete copy of the NMP containing the planner's Virginia Nutrient Management Certificate number;</u> b. <u>An invoice for planning services of the private certified planner;</u> c. <u>A completed Imported Manure Supplier Verification form (if applicable).</u> <p>6. <u>No nutrients may be applied at planting</u></p> <p>7. <u>If available as set forth in Section C.1. of this specification, cost-share is provided as a flat rate per acre incentive to encourage proper establishment of vegetative cover and to offset a portion of the cost of seed and the seeding</u></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>operation.</u></p> <p>8. <u>A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.</u></p> <p>9. <u>Aerial seeding is not applicable for this practice.</u></p> <p>10. <u>Seeding rates shall be adjusted based on germination rates.</u></p> <p>11. <u>The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The SL-8BM is not intended to subsidize winter crop produced for commodity purposes.</u></p> <p>12. <u>Harvesting for hay, haylage, silage, grain, straw or seed is not permitted. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through March 14. In years of drought, if producers anticipate a need for additional feed harvest, they should apply for the SL-8H practice, as harvest is not allowed under this practice.</u></p> <p>13. <u>Land enrolled in this practice may not be enrolled in another</u></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC																																			
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024																														
			<p><u>state cover crop practice.</u></p> <p><i>14. <u>Select one of following species and/or mixtures of species to plant in all soils:</u></i></p> <table><tr><th><u>Species</u></th><th><u>bu./acre</u></th></tr><tr><td><u>Rye (Tetraploid)</u></td><td><u>2 bu./acre</u></td></tr><tr><td><u>Winter Rye (not tetraploid)</u></td><td><u>2 bu./acre</u></td></tr><tr><td><u>Winter Barley</u></td><td><u>2 bu./acre</u></td></tr><tr><td><u>Winter Hardy Oats</u></td><td><u>2 bu./acre</u></td></tr><tr><td><u>Winter Wheat or Triticale</u></td><td><u>2 bu./acre</u></td></tr><tr><td><u>Winter Annual ryegrass</u></td><td><u>20 lbs./acre</u></td></tr><tr><td><u>Small grain mixtures with</u></td><td><u>1 bu./acre</u></td></tr><tr><td><u>a) legume† or</u></td><td><u>10 lbs./acre</u></td></tr><tr><td><u>b) Diakon (forage or tillage) radish or</u></td><td><u>6 lb./ acre</u></td></tr><tr><td><u>c) canola or rape</u></td><td><u>4 lbs./acre</u></td></tr><tr><td><u>Diakon (forage or tillage) Radish</u></td><td><u>6-8 lbs./acre°</u></td></tr><tr><td><u>mixture with annual rye grass</u></td><td><u>10 lbs./acre</u></td></tr><tr><td><u>Winter-hardy Brassica (canola/rape)</u></td><td><u>5 - 7 lbs./acre°</u></td></tr><tr><td><u>mixture with annual rye grass</u></td><td><u>10 lbs./acre</u></td></tr></table> <p><u>† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch</u></p> <p><u>°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings</u></p>	<u>Species</u>	<u>bu./acre</u>	<u>Rye (Tetraploid)</u>	<u>2 bu./acre</u>	<u>Winter Rye (not tetraploid)</u>	<u>2 bu./acre</u>	<u>Winter Barley</u>	<u>2 bu./acre</u>	<u>Winter Hardy Oats</u>	<u>2 bu./acre</u>	<u>Winter Wheat or Triticale</u>	<u>2 bu./acre</u>	<u>Winter Annual ryegrass</u>	<u>20 lbs./acre</u>	<u>Small grain mixtures with</u>	<u>1 bu./acre</u>	<u>a) legume† or</u>	<u>10 lbs./acre</u>	<u>b) Diakon (forage or tillage) radish or</u>	<u>6 lb./ acre</u>	<u>c) canola or rape</u>	<u>4 lbs./acre</u>	<u>Diakon (forage or tillage) Radish</u>	<u>6-8 lbs./acre°</u>	<u>mixture with annual rye grass</u>	<u>10 lbs./acre</u>	<u>Winter-hardy Brassica (canola/rape)</u>	<u>5 - 7 lbs./acre°</u>	<u>mixture with annual rye grass</u>	<u>10 lbs./acre</u>		
<u>Species</u>	<u>bu./acre</u>																																		
<u>Rye (Tetraploid)</u>	<u>2 bu./acre</u>																																		
<u>Winter Rye (not tetraploid)</u>	<u>2 bu./acre</u>																																		
<u>Winter Barley</u>	<u>2 bu./acre</u>																																		
<u>Winter Hardy Oats</u>	<u>2 bu./acre</u>																																		
<u>Winter Wheat or Triticale</u>	<u>2 bu./acre</u>																																		
<u>Winter Annual ryegrass</u>	<u>20 lbs./acre</u>																																		
<u>Small grain mixtures with</u>	<u>1 bu./acre</u>																																		
<u>a) legume† or</u>	<u>10 lbs./acre</u>																																		
<u>b) Diakon (forage or tillage) radish or</u>	<u>6 lb./ acre</u>																																		
<u>c) canola or rape</u>	<u>4 lbs./acre</u>																																		
<u>Diakon (forage or tillage) Radish</u>	<u>6-8 lbs./acre°</u>																																		
<u>mixture with annual rye grass</u>	<u>10 lbs./acre</u>																																		
<u>Winter-hardy Brassica (canola/rape)</u>	<u>5 - 7 lbs./acre°</u>																																		
<u>mixture with annual rye grass</u>	<u>10 lbs./acre</u>																																		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC																				
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024															
			<p><u>Higher seeding rates are recommended for non-incorporation seeding methods. Aerial seeding is not eligible with this practice.</u></p> <p>15. <u>Seeding of all seed types must be planted by the dates listed below:</u></p> <table><tr><th><u>Area</u></th><th><u>Early Planting Date</u></th><th><u>Standard Planting Date</u></th></tr><tr><td><u>Cities of</u></td><td><u>November 10</u></td><td><u>November 30</u></td></tr><tr><td><u>Coastal Plain</u></td><td><u>November 10</u></td><td><u>November 30</u></td></tr><tr><td><u>Piedmont</u></td><td><u>October 25</u></td><td><u>November 15</u></td></tr><tr><td><u>Mountain and Valley</u></td><td><u>October 20</u></td><td><u>November 10</u></td></tr></table> <p>16. <u>In all cases, this practice is subject to NRCS standard 340.</u></p> <p>17. <u>The cover crop must be killed using mechanical or chemical means or by grazing no earlier than March 15 and no later than June 1. The cover crop residue may be left on the field for conservation purposes or the cover crop or its residue may be tilled under. The practice will be considered complete once the cover crop has served its purpose and been killed.</u></p> <p><u>C. Rate(s)</u></p> <p>1. <u>For participants who are not receiving payment for cover</u></p>	<u>Area</u>	<u>Early Planting Date</u>	<u>Standard Planting Date</u>	<u>Cities of</u>	<u>November 10</u>	<u>November 30</u>	<u>Coastal Plain</u>	<u>November 10</u>	<u>November 30</u>	<u>Piedmont</u>	<u>October 25</u>	<u>November 15</u>	<u>Mountain and Valley</u>	<u>October 20</u>	<u>November 10</u>		
<u>Area</u>	<u>Early Planting Date</u>	<u>Standard Planting Date</u>																		
<u>Cities of</u>	<u>November 10</u>	<u>November 30</u>																		
<u>Coastal Plain</u>	<u>November 10</u>	<u>November 30</u>																		
<u>Piedmont</u>	<u>October 25</u>	<u>November 15</u>																		
<u>Mountain and Valley</u>	<u>October 20</u>	<u>November 10</u>																		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>crops from another source on the same acreage, a state cost share payment rate of \$15 per acre is available. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14.</u></p> <p>2. <u>The cost of fertilizer may not be considered when calculating the participant's tax credit. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre.</u></p> <p>3. <u>As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.</u></p> <p>4. <u>A \$22 per acre early planting bonus is payable for cover crops planted on or before the early planting date specified for their physiographic region. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14.</u></p> <p>5. <u>A \$8 per acre bonus payment is available for all applicants that plant pure stands of rye from the following list on or before either planting date.</u></p> <p>i. <u>The following list of rye cultivars are approved*:</u></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC																				
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations		DCR Supports	PY2023/2024														
			<table><tr><td><u>6250 Abruzzi</u></td><td><u>Paster</u></td></tr><tr><td><u>Abruzzi</u></td><td><u>Ryman</u></td></tr><tr><td><u>Dura</u></td><td><u>Virginia Abruzzi</u></td></tr><tr><td><u>Early Grazer</u></td><td><u>Wheeler</u></td></tr><tr><td><u>Elbon</u></td><td><u>Wintergrazer 70</u></td></tr><tr><td><u>Grazer</u></td><td><u>Winterking</u></td></tr><tr><td><u>Graze Master</u></td><td></td></tr></table> <p><u>*Or any other indeterminate growth tetraploid rye cultivar.</u></p> <p><u>D. Technical Responsibility</u></p> <p><u>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.</u></p>		<u>6250 Abruzzi</u>	<u>Paster</u>	<u>Abruzzi</u>	<u>Ryman</u>	<u>Dura</u>	<u>Virginia Abruzzi</u>	<u>Early Grazer</u>	<u>Wheeler</u>	<u>Elbon</u>	<u>Wintergrazer 70</u>	<u>Grazer</u>	<u>Winterking</u>	<u>Graze Master</u>			
<u>6250 Abruzzi</u>	<u>Paster</u>																			
<u>Abruzzi</u>	<u>Ryman</u>																			
<u>Dura</u>	<u>Virginia Abruzzi</u>																			
<u>Early Grazer</u>	<u>Wheeler</u>																			
<u>Elbon</u>	<u>Wintergrazer 70</u>																			
<u>Grazer</u>	<u>Winterking</u>																			
<u>Graze Master</u>																				
3C	WQ-1	The current payments for WQ-1 are not attractive enough for cropland producers to seriously consider this practice. Given the magnitude of nitrogen reductions expected in the next five years from cropland, this practice needs serious consideration. DEQ has concurred via separate communication. WQ-1 per land unit has more bang in the Bay Model than the NMP. We recommend increasing the WQ-1 cost-	The TAC agreed with the suggestion to make the WQ-1 practice more attractive. Additionally, the TAC agreed to rename the practice to emphasize this practice is designed for <i>riparian</i> grass filter strips which is how the practice is credited in the Chesapeake Bay Model. As such, changes were made as follows. Instead of copying in the entirety of the VACS specification, only those sections with proposed changes can be reviewed below:		Yes	PY2023														

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
		share rate to 95% and also adding a buffer payment since land is being taken out of production (i.e. similar to SL-6s).	<p><i>Name of Practice:</i></p> <p><u>RIPARIAN GRASS FILTER STRIPS</u></p> <p><i>DCR Specification No. WQ-1</i></p> <p><i>This document specifies terms and conditions for the Virginia Department of Conservation and Recreation’s <u>Riparian Grass Filter Strip</u> best management practice which are applicable to all contracts entered into with respect to that practice.</i></p> <p><i>A. Description and Purpose</i></p> <p><i><u>Riparian g</u>Grass filter strips are vegetative buffers that are located along the banks of water courses to filter runoff, anchor soil particles, and protect banks against scour and erosion. Even the best conservation measures on a farm allow some soil movement during heavy rains. Filter strips are the stream's last line of defense against pollution. Since filter strips trap eroded soil, they help keep sediment out of streams. The strips also improve water quality by filtering out fertilizers, pesticides, and microorganisms that otherwise might reach waterways. In addition, grass<u>riparian grass</u> filter strips along streams serve as environmental corridors. They provide valuable food, cover, and travel ways for some wildlife species. As a result, they permit a greater diversity of wildlife, which, in turn, contributes to a more stable environment. Also, these living filters are aesthetically pleasing.</i></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><i>Cost-share will be provided to install and maintain grass<u>riparian grass</u> filter strips that are located adjacent to cropland, permanent hayland (when recommended in an approved Resource Management Plan), or animal holding areas.</i></p> <p><i>B.2.i. Grass<u>Riparian grass</u> filter strips shall be designed and installed to filter sheet flow, rather than concentrated flow. If concentrated flow will occur, land smoothing or the use of some other BMP or combination of BMPs may be required (such as Grassed Waterways and Structures for Water Control).</i></p> <p><i>B.2.ii. Filter <u>strips</u> must be a minimum 35’ in width. The maximum filter width eligible for cost-share payment and tax credit is 100’, except for wider segments of a contoured filter where the contour is typically 35’ to 100’ wide.</i></p> <p><i>B.3. Riparian filter f<u>Filter strips</u> must be located within 100’ feet of a live or intermittent waterway, open sinkhole, abandoned well or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. An intermittent waterway is considered as being, but not limited to, any channel or flood-prone area where periodic water flow or storage is diverted by surface drainage. Grass<u>Riparian grass</u> filter strips may be installed along intermittent waterways where judged appropriate and feasible by the local technical authority.</i></p> <p><i>B.6. Hayland is considered cropland if it is in rotation with row crops during the five year life span of the grass filter strip.</i></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><i><u>B.7. Soil loss rates must be computed for all applications for use in establishing priority considerations and reflect at minimum a 3-year cropping history.</u></i></p> <p><i><u>B.10.ii. Protect the filter strip from damage by livestock. Grazing (including flash grazing) and haying are not allowed in the protected area during the duration of the practice. If at any time during the practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).</u></i></p> <p><i><u>B.10.vi. Hay may be harvested from grass filter strips except when using wildlife option.</u></i></p> <p><i><u>C.1. The state cost-share payment, alone or when combined with any other cost share program, will not exceed 75% of the total eligible cost, or a maximum of \$100/acre for 35 feet to 100 feet wide filter strips. WQ-1 installed on permanent hayland in accordance with an RMP is eligible for \$100/acre. The state cost-share payment rates shall be based on the approved or actual cost, whichever is less, and shall vary by the minimum buffer width and lifespan of the practice. The buffer payment rates shall be provided for a maximum of 15 acres. The rates including the buffer payment rates are:</u></i></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC									
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations					DCR Supports	PY2023/2024
			<u>Minimum Riparian Grass Filter Strip Width</u>	<u>Lifespan</u>	<u>Cost-share rate</u>	<u>Buffer payment rate</u>	<u>Buffer payment cap</u>		
			50'	<u>15 years</u> <u>10 years</u>	<u>100%</u> <u>95%</u>	<u>\$80 per acre per year</u> <u>\$80 per acre per year</u>	<u>\$18,000 per contract</u> <u>\$12,000 per contract</u>		
			35'	<u>15 years</u> <u>10 years</u>	<u>90%</u> <u>85%</u>	<u>\$80 per acre per year</u> <u>\$80 per acre per year</u>	<u>\$18,000 per contract</u> <u>\$12,000 per contract</u>		
			<u>NOTE: The buffer payment cap is the maximum a participant can be paid per tract even when multiple practices with buffer payments are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).</u>						
			<u>C.3. If a participant receives cost-share from any source (federal, state or private), only the participant's eligible out of pocket share of the project costpercent of the total cost of the project that the applicant contributed is used to determine the tax credit.</u>						

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
4C	SL-8	Clarification on SL-8 is needed. Is 60% cover required for this practice? And at what point should it be checked if you are able to plant up to November 30th?	<p>The TAC recommends clarifications to the SL-8 specification as follows:</p> <p><i>A. Description and Purpose</i></p> <p><u><i>This practice will provide an incentive to keep a cover on specialty crop land when it is not being used after the harvest of a specialty crop. The purpose is to reduce wind and water erosion, thus improving water quality. Cost-share or tax credit are provided to establish vegetative cover on specialty cropland, thereby reducing wind and water erosion and improving water quality.</i></u></p> <p><u><i>B.1. Eligibility: Specialty crops for this practice are defined as: (for the purposes of the Virginia Agricultural Cost-Share Program only) are defined as: Vegetables, tree crops, perennial vine crops, ornamentals, horticultural crops, tobacco, hemp, turf, small grains, and other similar crops. i) Vegetables, ii) Tobacco, iii) Small Grains.</i></u></p> <p><u><i>B.5. The seed must be planted and certified no later than November 30. A good stand and growth of vegetated cover must be obtained in sufficient time to protect the area no later than December 15. The seeding must be planted and certified by November 30. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice. After the growth has been maintained for at least 90 days after seeding certification or until the conservation purpose has been served in accordance with NRCS 340, whichever is greater, it may be left on the land or incorporated.</i></u></p>	Yes	PY2023

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
5C	SL-8B	Add a bonus payment for rye cover crop to not terminate until after May 1st.	Following discussion, the suggestion of a late May 1 st cover crop kill down date was added into the new Whole Farm Approach's Cover Crop (WFA-CC) practice specification. Due to the length of the WFA-CC and its nutrient management counterpart (i.e. WFA-NM), they can both be found attached at the end of this TAC Matrix instead of including the complete text herein.	Yes, for the WFA-CC practice only.	PY2023 for Pilot Districts; PY2024 for potential statewide adoption.
7C	NM-3C NM-5N	Consider modifying the cost share reimbursement rate for the soil testing component of the NM-3C and NM-5N to \$12/sample.	<p>The TAC recommends advancing this suggesting by amending both the NM-3C and NM-5N practices as follows:</p> <p>For NM-3C: <i>C.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 \$128.00 per sample.</i></p> <p>For NM-5N: <i>C.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 \$812.00 per sample, up to one PSNT per field. No per sample cost-share is available for zone soil fertility testing.</i></p>	Yes	PY2023
8C	NM-5P	Add an option for NM-5P acres receiving zero phosphorus based on test results to receive payment (similar to how NM-5N already works).	<p>The TAC recommends the following adjustments to the NM-5P practice:</p> <p><u><i>B.5. Acres receiving a zero application rate based upon the soil test results of zone or grid (subfield) sampling recommendations also qualify for a payment rate of \$8.00 per acre.</i></u></p> <p><i>C.2. For participants who are not receiving payment for precision application of phosphorus from another funding source on the same</i></p>	Yes	PY2023

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<i>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 variable rate zone or grid (subfield) application of phosphorous on row crops, small grains or highly managed hayland production systems.</i>		
9C	NM-1A NM-3C NM-4 NM-5N NM-5P	We would like to have a tiered/stacked approach for nutrient management practices: NM-1A, NM-3C, NM-4, NM-5N, NM-5P and new options. This could eliminate all of the practices. It would be attractive if it was a flat rate practice instead of a percentage. Here is an example opinion of rates: \$6/acre for NMP and Nutrient records for NMP implementation, \$5/acre per sidedress application, \$5/ac per topdress application, \$5/acre for injection (including starter 2x2 and pop-up if applying N&P), \$10/acre for variable rate N and \$10/acre for variable rate P.	<p>Following discussion, the suggestion was addressed through the development of the new Whole Farm Approach's Nutrient Management (WFA-NM) practice specification. A stackable Whole Farm Approach specification for Cover Crops was also created (i.e. WFA-CC). Due to the length of these two practice specifications, they can both be found attached at the end of this TAC Matrix instead of including the complete text herein. DCR developed and agrees with the bundle practices passed by the TAC, but has additionally suggested a core \$4/acre payment to the WFA-CC in order to address concerns that farmers would choose the regular VACS cover crop practices (i.e. SL-8B, SL-8H) before the WFA-CC.</p> <p>Over the past few years the WFA framework was piloted mainly in Three Rivers SWCD and more recently in Eastern Shore SWCD. Due to the overwhelming amount of data involved in WFA contracting, the DCR Conservation Application Suite will have to be updated significantly in order to handle so-called "bundle practices" and thereby make the WFA work on a larger geographic scale. DCR suggests the expansion of WFA using the new WFA-CC and WFA-NM specifications to roughly 10-12 pilot Districts scattered across the state in Program Year 2023. The ultimate goal is to bring the WFA statewide in Program Year 2024.</p>	Yes	PY2023 for Pilot Districts; PY2024 for potential statewide adoption.
10C	SL-8B SL-8H WFA-CC	Clarification that cover crop practices are not intended for land already in permanent grass/hayland.	Internal DCR recommendation based on issues reported by districts during cover crop sign up periods. Clarification is recommended to match intent of the practice, current implementation in the field, and guidance provided by DCR. DCR recommends the following additional language:	Yes	PY2023

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><i>SL-8B: B.7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The SL-8B is not intended to subsidize crops produced for commodity purposes <u>or for land already in permanent grass.</u></i></p> <p><i>SL-8H: B.7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The SL-8H is designed to provide an incentive to farmers to provide year round vegetative cover on as much acreage as possible; it is not intended to subsidize winter crops produced for commodity purposes <u>or for land already in permanent grass.</u></i></p> <p><i>WFA-CC: Standard Cover Crop Policies and Specification. B. 7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit in of cover crops Virginia. This WFA-CC option is not intended to subsidize crops produced for commodity purposes <u>or for land already in permanent grass.</u></i></p> <p><i>WFA-CC: Harvestable Cover Crop Policies and Specifications. B. 7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients, by reducing surface erosion and absorbing any excess nutrients from the soil. Current research</i></p>		

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<i>indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The Harvestable Cover Crop option is designed to provide an incentive to farmers to provide year round vegetative cover on as much acreage as possible; it is not intended to subsidize winter crops produced for commodity purposes <u>or land already in permanent grass.</u></i>		
11C	SL-8H NM-4 WFA-CC WFA-NM	Clarification that NM-4 and SL-8H cannot receive cost share on the same acres in a program year. SL-8H is not intended to subsidize winter crops for commodity purposes. Most producers would only add a split application of fertilizer (NM-4) for a commodity crop; by enrolling the same acres in both practices a subsidy is provided for a commodity crop.	<p>Internal DCR recommendation after a concern was reported by a SWCD. New language matches intent of the practices, as well as current implementation in the field and guidance given by DCR.</p> <p><i>SL-8H: B.9. Land enrolled in this practice may not be enrolled in another state cover crop practice and may not be converted to or from another cover crop practice. <u>Enrolled acres are also ineligible for the NM-4 practice</u></i></p> <p><i>NM-4: <u>B. 1. v. Acres enrolled in the NM-4 practice are ineligible receive payment for an SL-8H on the same acres.</u></i></p> <p><i>WFA-CC: Harvestable Cover Crop Policies and Specifications. B. 9. Land enrolled in this practice may not be enrolled in another state cover crop practice, and may not be converted to or from another cover crop practice. <u>Acres enrolled for this component are ineligible to receive payment for the WFA-NM Second Topdress Application of Anitrogen on Small Grain component.</u></i></p> <p><i>WFA-NM: Second Topdress Application of Nitrogen on Small Grains Policies and Specifications. B.10. <u>Acres enrolled for this component are ineligible to receive payment for the SL-8H or the WFA-CC Cover Crop – Harvestable component.</u></i></p>	Yes	PY2023

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
	WQ-4	There is currently no estimated nitrogen availability from austrian winter pea in the nutrient management standards and criteria. Austrian winter pea has a similar estimated nitrogen availability to succeeding crops as red clover or crimson clover.	A sentence will be added to B.9. of the specification: <i>Applicant must submit documentation (fertilizer recommendation and bills, or signed statement) indicating that the applied nitrogen fertilizer used that crop year was reduced, or will be reduced only in cases where nitrogen will be applied after June 1, according to Table 7-1 on page 108 “Estimated Nitrogen Availability to Succeeding Crops from Legumes” of DCR Nutrient Management Standards and Criteria (07/2014) per acre from the normal application or rate that was recommended. <u>For any acres planted in Austrian winter pea, the estimated nitrogen availability to succeeding crops will be estimated at the same rate as red clover or crimson clover.</u> Consult a local Extension Agent for exact recommendations. Districts shall utilize the signed statement example found on page WQ-4 - 5 and place in the participant’s case file.</i>	Yes	2023

MATRIX OF DEFERRED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring

Note: No items were deferred by the Cover Crop Nutrient Management Subcommittee this year.

MATRIX OF TABLED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
2C		Allow for a fall cover crop with nutrients applied.	This suggestion was tabled in Subcommittee. Studies are inconclusive as to the benefits of fall application of nutrients (inorganic) on cover crop. Additionally, the Chesapeake Bay Model does not provide credit for this cover option.
6C	SL-8 SL-8A SL-8B SL-8H	Examine the seeding rates for cover crops. Some seeding rates may be too high (2 bushels per acre).	This suggestion was tabled in Subcommittee. Additional studies are being requested/conducted to provide the data needed for the Bay Model. Current Bay Model credit is provided for cover crop following current standards and specifications. The relationship between seeding rates, production, and time of year are being requested.

Name of Practice: SIDEDRESS APPLICATION OF NITROGEN ON
CORN AT THE 6-LEAF STAGE OR AT LEAST 15" IN HEIGHT
DCR Specification for No. NM-3C

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Sidedress Application of Nitrogen on Corn practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

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

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 sidedress 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. The producer 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 sidedressed will determine the maximum acres to qualify.
 - 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 on which this practice will be implemented. 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. The producer must sign up prior to April 1 and provide a written verification of contracted sidedress 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 inches 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 \$6 per acre. This is for manure only; biosolids are not eligible for payment.
8. This is an annual practice.

C. Rate(s)

1. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
2. For participants who are not receiving payment for a sidedress 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, shall be paid based upon the contracted sidedress application acreage. Producers applying their own sidedress 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 \$~~12~~18.00 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 April 202~~2~~4

Name of Practice: LATE WINTER SPLIT
APPLICATION OF NITROGEN ON SMALL GRAINS
DCR Specifications for No. NM-4

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Late Winter Split Application of Nitrogen on Small Grains practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Late winter split application of nitrogen on small grain consists of applying nitrogen during the late winter in two increments based on the progression of growth of the small grain crop. Applying nitrogen based on the progression of growth of the small grain crop in the late winter minimizes the amount lost through leaching and runoff.

B. Policies and Specifications

1. Eligibility

- i. 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 on which this practice will be implemented. 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).
- ii. The total number of small grain acres specified by the Nutrient Management Plan to receive split nitrogen applications will determine the maximum acres to qualify, with payment being made only to those acres which actually receive split nitrogen applications.
- iii. Eligibility for this practice is limited to the length of the plan recommending the split nitrogen application.
- ~~iv.~~ Farmers must sign up prior to February 1 and provide written verification (such as a work order or bill) to the District within two weeks of the second application and prior to cost-share payment.
- ~~iv-v.~~ Acres enrolled in the NM-4 practice are ineligible receive payment for an SL-8H on the same acres.

2. Practice Development

- i. This cost-share practice is for the split application of late winter nitrogen on small grain. Each application must contain nitrogen as a component of the material applied.
- ii. 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 should be determined by a nitrate test.

- iii. The amount of late winter nitrogen to be applied to the small grain field must be determined by using the criteria contained in the *Virginia Nutrient Management Standards and Criteria, revised July 2014*.

3. Practice Implementation

- i. To ensure the impact of nitrogen to ground and surface waters is minimized in small grain production, nitrogen rates ~~at planting and midwinter and application~~ shall follow recommendations contained in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014*.
- ii. Compliance checks with this practice may be conducted by the District or appropriate agency personnel throughout the life of the practice and failure to comply may result in forfeiture of cost-share funds.
- iii. Sample collection for any soil nitrate tests in the fall, tissue tests, or tiller counts should be done by the plan developer, an employee of the plan developer, or the farmer.
- iv. In lieu of tiller counts and tissue tests, as listed in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014*, late winter split application of nitrogen must not exceed 40 pounds of nitrogen for the first application and must not exceed 50 pounds of nitrogen for the second application.
- v. For late winter split application of nitrogen, the two applications must be at least 30 days apart, with the first application no earlier than growth stage 25, with nitrogen rates determined based on tiller counts and tissues tests as explained in the *Virginia Nutrient Management Standards and Criteria revised July, 2014*.
- vi. This is an annual practice.

C. Rate(s)

1. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
2. For participants who are not receiving payment for a late winter split application of nitrogen on small grains 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 \$4.50 per acre, if offered for the second application in the late winter. If only one late winter application is made, no reimbursement is to be provided.
3. Costs for soil nitrate test sample collection and analysis by a commercial laboratory that may be 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 April 2022

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Precision Nutrient Management on Cropland – Nitrogen Application best management practice which are applicable to all contracts entered into with respect to that practice.

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 production systems (see Glossary for definition).

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 of nitrogen applies to corn, cotton, small grains crops, grain sorghum/milo, canola, specialty crops, produce, turf/sod farms 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, which is not eligible). Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. This is an annual practice.
2. 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.
3. 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): 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 samples may be used by the participant to support this practice.
 - ii. Variable rate nitrogen applications or zone application of nitrogen based upon

- the soil test results of (subfield) sampling on row crops, specialty crops or small grains. Other macro-micro nutrients may be applied concurrently.
- iii. Three or more split applications of nitrogen on small grains.
 - iv. Two or more split sidedress applications of nitrogen on corn or cotton.
 - v. Two or more applications of nitrogen on highly managed hayland production systems (other than alfalfa, which is not eligible).
 - vi. Injection at sidedress.
4. 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.
 5. All split applications will be applied at a growth stage when the plant is entering the highest demand for nitrogen. Application of any sidedress nitrogen, including the first split, must be applied after the corn is at the 5-leaf stage or at least 12" in height.
 6. Subsequent sidedress applications must be applied at least 14 days after the most recent application.
 7. Total nitrogen application rates (including pre-plant and sidedress) on corn shall not exceed 1 lb./bu. expected crop yield.
 8. Where this practice is applied, there must be a note in the narrative or elsewhere in the nutrient management plan indicating that the soils were sampled in an appropriate manner.
 9. 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 on which this practice will be implemented. 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).
 10. Acres receiving a zero application rate based on a PSNT result also qualify for a payment rate of \$8 per acre.
 11. 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.

12. Participants shall provide written verification of the recommendation and the resulting application(s) (e.g. results of laboratory test, a work order or bill, as-applied application map of field) to the District within 45 days of the final nitrogen application.
13. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
14. Fields that have received applications of biosolids within the previous 24 months are not eligible.
15. 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, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices, as discussed in the Tax Credit Guidelines of the VACS Manual.

For participants 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 \$812.00 per sample, up to one PSNT per field. No per sample cost-share is available for zone soil fertility testing.

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 2022⁺

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Precision Nutrient Management on Cropland – Phosphorus Application best management practice which are applicable to all contracts entered into with respect to that practice.

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 intended for row crops, small grains, grain sorghum/milo, canola, specialty crops, produce, turf/sod farms 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.
2. 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.
3. 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.
4. Total phosphorus application rates shall not exceed the zone or grid sampling recommendations.

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 on which this practice will be implemented. 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).

5. Acres receiving a zero application rate based upon the soil test results of zone or grid (subfield) sampling recommendations also qualify for a payment rate of \$8.00 per acre.

~~5.6.~~ The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones (zones shall be no larger than 20 acres and based upon soil type), grids (grid size shall be 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.

~~6.7.~~ The participant **must** provide written verification of the recommendation(s) and the resulting application(s) (e.g. results of laboratory test(s), a work order or detailed bill/invoice showing application rates, an as-applied application map of field(s)) to the District within forty-five days of the phosphorous application.

~~7.8.~~ The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.

~~8.9.~~ Fields that have received applications of biosolids within the previous 24 months are not eligible.

C. Rates

1. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices, as discussed in the Tax Credit Guidelines of the VACS Manual.
2. For participants who are not receiving payment for precision application of phosphorus from another 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 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.

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 2022⁺

Name of Practice: PROTECTIVE COVER FOR SPECIALTY CROPS
DCR Specifications for No. SL-8

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

A. Description and Purpose

~~This practice will provide an incentive to keep a cover on specialty crop land when it is not being used after harvest of a specialty crop. The purpose is to reduce wind and water erosion, thus improving water quality. Cost-share or tax credit are provided to establish vegetative cover on specialty cropland, thereby reducing wind and water erosion and improving water quality.~~

B. Policies and Specifications

1. Eligibility:

Specialty crops for this ~~practice~~practice are defined as:

(for the purpose of the Virginia Agricultural Cost-Share Program only) are defined as: Vegetables, tree crops, perennial vine crops, ornamentals, horticultural crops, tobacco, hemp, turf, small grains, and other similar crops.

- i) ~~Vegetables~~
- ii) ~~Tobacco~~
- iii) ~~Small grains~~

2. Specialty crops are given consideration due to bare sites and highly erodible soil conditions.
3. Soil loss rates must be computed for all applications for use in establishing priority considerations.
4. Payment is provided as a flat rate per acre incentive payment to encourage proper establishment and to offset a portion of the cost of seed and the seeding operation.
5. ~~The seeding must be planted and certified by no later than November 30. A good stand and growth of vegetative~~eed cover must be obtained in sufficient time to protect the area ~~or no later than by December 15. The seeding must be planted and certified by November 30. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.~~ After the growth has been maintained for at least 90 days after seeding certification or until the conservation purpose has been served in accordance with NRCS 340, whichever is greater, it may be left on the land or incorporated.
6. Pasturing consistent with good management may be permitted. No vegetative growth may be harvested for hay or seed.

7. Seed type and rates shall be those listed:

Seed Type	Rate
Tetraploid Rye (pure strain only)	2.0 bu./acre
Winter Rye	1.5 bu./acre
Winter Barley	2.5 bu. /acre
Winter Annual Ryegrass	20 lbs./acre
Winter Wheat	1.5 bu./acre
Winter Hardy Oats	2.0 bu./acre
Small Grain Mixtures	1 bu./ac.with
a) legume†	10 lbs./acre or,
b) forage radish	6 lb./ acre or,
c) canola or rape	4 lbs./acre
Triticale	1.5 bu. /acre
Forage Radish	6-8 lbs. /acre
1) mixture with grass or legume†	4 lbs./acre
Winter-Hardy <i>Brassica</i> (canola/rape)	5 lbs./acre
1) mixture with grass or legume†	2-4 lbs./acre

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings.

Higher seeding rates are recommended for aerial seeding.

8. This practice is subject to NRCS standard 340 Cover Crop.

C. Rate(s)

- For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of \$30 per acre is available.
- As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

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 202~~2~~⁴

Name of Practice: SMALL GRAIN AND MIXED COVER CROP FOR NUTRIENT
MANAGEMENT AND RESIDUE MANAGEMENT
DCR Specifications for No. SL-8B

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Small Grain Cover Crop and Mixed Cover Crop for Nutrient Management and Residue Management Best Management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Cost-share or tax credit are provided to establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater.

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients. The purpose is to reduce erosion and the leaching of nutrients to ground water. This BMP is designed to utilize the maximum amount of residual nitrogen from previous surface nutrient applications and in the first three feet of the soil profile.

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.
2. No nutrients from any sources are allowed between the harvesting of the previous crop and March 1 of the next calendar year. No nutrients are allowed at planting.
3. Cost-share is provided as a variable flat rate per acre incentive to encourage proper establishment and to offset a portion of the cost of seed and the seeding operation.
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 on which this practice will be implemented. 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).
5. A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.

6. Seeding rates shall be adjusted based on germination rates.
7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The SL-8B is not intended to subsidize crops produced for commodity purposes or for land already in permanent grass.
8. Harvesting for hay, haylage, silage, grain, straw or seed is not permitted. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through March 14. **In years of drought, if producers anticipate a need for additional feed harvest, they should apply for the SL-8H practice, as harvest is not allowed under this practice.**
9. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume [†] or	10 lbs./acre
b) Diakon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Diakon (forage or tillage) Radish	6-8 lbs./acre [°]
mixture with annual rye grass	10 lbs./acre
Winter-hardy <i>Brassica</i> (canola/rape)	5 -7 lbs./acre [°]
mixture with annual rye grass	10 lbs./acre

[†] - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

[°]Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

Higher seeding rates are recommended for aerial seeding and non-incorporation seeding methods.

10. Seeding of all seed types must be planted by the dates listed below:

Area	Early Planting Date	Standard Planting Date
Cities of Chesapeake & VA Beach	November 10	November 30
Coastal Plain (including the Eastern Shore)	November 10	November 30
Piedmont	October 25	November 15
Mountain and Valley	October 20	November 10

11. In all cases, this practice is subject to NRCS standard 340.

12. The cover crop must be killed using mechanical or chemical means or by grazing no earlier than March 15 and no later than June 1. The cover crop residue may be left on the field for conservation purposes or the cover crop or its residue may be tilled under. The practice will be considered complete once the cover crop has served its purpose and been killed.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost share payment rate of **\$20** per acre is available. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre.
2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
3. A **\$30** per acre early planting bonus is payable for cover crops planted on or before the early planting date specified for their physiographic region. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates.

4. A **\$10** per acre bonus payment is available for all applicants that plant pure stands of rye from the following list on or before either planting date.

- i. The following list of rye cultivars are approved*:

6250 Abruzzi	Paster
Abruzzi	Ryman
Dura	Virginia Abruzzi
Early Grazer	Wheeler
Elbon	Wintergrazer 70
Grazer	Winterking
Graze Master	

*Or any other indeterminate growth tetraploid rye cultivar.

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 2021

Name of Practice: HARVESTABLE COVER CROP
DCR Specifications for No. SL-8H

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

A. Description and Purpose

Cost-share or tax credits are provided for the establishment of vegetative cover on cropland for protection from raindrop and wind erosion and the reduction of nutrient losses to groundwater. The cover crop may be harvested after the requirements of this specification have been met.

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients. The primary purpose is to reduce winter rain and wind generated erosion; a secondary purpose is to reduce the leaching of nutrients to ground water. This practice is not intended to subsidize winter crop production.

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during verifications.
2. 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 on which this practice will be implemented. 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).
3. No nutrients from any source are allowed between the harvesting of the previous crop and March 1 of the next calendar year, except that use of manure (with less than 40 lbs. N per acre tested) on up to 300 acres is permitted if all of the following conditions are met:
 - i. Animals are raised as part of the applicant's operation;
 - ii. Inadequate manure storage is available for the winter;
 - iii. There are no other vegetated acres available to safely utilize the manure;
 - iv. Manure is applied in accordance with a Nutrient Management Plan prepared by a Virginia certified Nutrient Management Planner.

4. No nutrients may be applied at planting.
5. If available as set forth in Section C. 1. of this specification, cost-share is provided as a flat rate per acre incentive to encourage proper establishment of vegetative cover and to offset a portion of the cost of seed and the seeding operation.
6. A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.
7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The SL-8H is designed to provide an incentive to farmers to provide year round vegetative cover on as much acreage as possible; it is not intended to subsidize winter crops produced for commodity purposes or land already in permanent grass.
8. Harvesting for hay, haylage, silage, grain, or seed is permitted after March 14. Pasturing consistent with sound agronomic management is permitted as long as 60% cover is maintained through March 14.
9. Land enrolled in this practice may not be enrolled in another state cover crop practice and may not be converted to or from another cover crop practice. Enrolled acres are also ineligible for the NM-4 practice.
10. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume† or	10 lbs./acre
b) Diakon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Diakon (forage or tillage) Radish	6-8 lbs./acre°
mixture with annual rye grass	10 lbs./acre
Winter-hardy <i>Brassica</i> (canola/rape)	5 -7 lbs./acre°

mixture with annual rye grass	10 lbs./acre
-------------------------------	--------------

† legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings.

Higher seeding rates are recommended for aerial seeding and non-incorporation seeding methods.

11. Seeding of all seed types must be planted by the dates listed below:

Area	Planting Date
Cities of Chesapeake & VA Beach	November 10
Coastal Plain (including the Eastern Shore)	November 10
Piedmont	October 25
Mountain and Valley	October 20

12. Seeding rates shall be adjusted based on germination rates.
13. This practice is subject to NRCS standard 340 as applicable.
14. The cover crop residue may be left on the field for conservation purposes; or the cover crop or its residue may be tilled under; or the cover crop may be harvested after March 14.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of \$20 per acre is available. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates.
2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
3. The cost of fertilizer may not be considered when calculating the participant's tax credit. Participants may receive either a cost-share payment or a tax credit for implementation of this practice, but not both on the same acre.

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 2021

Name of Practice: SMALL GRAIN AND MIXED COVER CROP FOR
NUTRIENT MANAGEMENT AND RESIDUE MANAGEMENT
WITH FALL MANURE APPLICATION
DCR Specifications for No. SL-8M

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management with Fall Manure Application Best Management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Cost-share or tax credit are provided to establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater. This type of cover crop is planted upon cropland where manure is applied following the harvest of a summer crop and prior to cover crop planting. The crop may not be harvested in the spring.

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients, reduce erosion and the leaching of nutrients to ground water. The purpose is to increase above- and below-ground biomass returned to the soil by increasing the amount of manure amendments while minimizing nutrient loss risk, thereby providing adequate fertility to grow the extra biomass. This BMP is designed to utilize the maximum amount of residual nitrogen from previous surface nutrient applications and in the first three feet of the soil profile.

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.
2. Application of manure (organic) amendments are allowed between the harvesting of the previous crop and prior to planting.
3. 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 on which this practice will be implemented. 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).
4. A current Nutrient Management Plan must be on file with the District Prior to issuing cost share. Cost-share is available for all acres with application rates in compliance with the NMP Spreading Schedule. Acres that receive application rates above NMP are not eligible for cost-share.

5. No nutrients from any source are allowed between the harvesting of the previous crop and March 1 of the next calendar year, except that use of manure (with less than 40 lbs. N per acre tested) is permitted if all of the following conditions are met:
 - i. Inadequate manure storage is available for the winter at the source;
 - ii. Manure is applied in accordance with a Nutrient Management Plan prepared by a Virginia certified Nutrient Management Planner.
 - iii. New plans shall be written for a period of one to three years. Before cost-share payment can be made the following items must be submitted:
 - a. A complete copy of the NMP 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).
6. No nutrients may be applied at planting
7. If available as set forth in Section C.1. of this specification, cost-share is provided as a flat rate per acre incentive to encourage proper establishment of vegetative cover and to offset a portion of the cost of seed and the seeding operation.
8. **A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter.** All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.
9. Aerial seeding is not applicable for this practice.
10. Seeding rates shall be adjusted based on germination rates.
11. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The SL-8BM is not intended to subsidize winter crop produced for commodity purposes.
12. Harvesting for hay, haylage, silage, grain, straw or seed is not permitted. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through March 14. **In years of drought, if producers anticipate a need for additional feed harvest, they should apply for the SL-8H practice, as harvest is not allowed under this practice.**
13. Land enrolled in this practice may not be enrolled in another state cover crop practice.
14. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre

Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume† or	10 lbs./acre
b) Diakon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Diakon (forage or tillage) Radish	6-8 lbs./acre°
mixture with annual rye grass	10 lbs./acre
Winter-hardy <i>Brassica</i> (canola/rape)	5 -7 lbs./acre°
mixture with annual rye grass	10 lbs./acre

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

Higher seeding rates are recommended for non-incorporation seeding methods. Aerial seeding is not eligible with this practice.

15. Seeding of all seed types must be planted by the dates listed below:

Area	Early Planting Date	Standard Planting Date
Cities of Chesapeake & VA Beach	November 10	November 30
Coastal Plain (including the Eastern Shore)	November 10	November 30
Piedmont	October 25	November 15
Mountain and Valley	October 20	November 10

16. In all cases, this practice is subject to NRCS standard 340.

17. The cover crop must be killed using mechanical or chemical means or by grazing no earlier than March 15 and no later than June 1. The cover crop residue may be left on the field for conservation purposes or the cover crop or its residue may be tilled under. The practice will be considered complete once the cover crop has served its purpose and been killed.

C. Rate(s)

- For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost share payment rate of **\$15** per acre is available. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14.
- The cost of fertilizer may not be considered when calculating the participant's tax credit. Participants may receive either a cost-share payment or a tax credit for

implementation of this practice but not both on the same acre.

3. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
4. A **\$22** per acre early planting bonus is payable for cover crops planted on or before the early planting date specified for their physiographic region. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14.
5. A **\$8** per acre bonus payment is available for all applicants that plant pure stands of rye from the following list on or before either planting date.
 - i. The following list of rye cultivars are approved*:

6250 Abruzzi	Paster
Abruzzi	Ryman
Dura	Virginia Abruzzi
Early Grazer	Wheeler
Elbon	Wintergrazer 70
Grazer	Winterking
Graze Master	

*Or any other indeterminate growth tetraploid rye cultivar.

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.

Created April 2022

Name of Practice:
WHOLE FARM APPROACH – COVER CROP BUNDLE
DCR Specification for No. WFA-CC

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Whole Farm Approach – Cover Crop practice for bundled agricultural best management practices which are applicable to all contracts entered into with respect to that practice. **Implementation of WFA-NM is required to be eligible for this practice.**

A. Description and Purpose

This practice will collect data and provide for the establishment of vegetative cover on agricultural land for protection from erosion and the reduction of nutrient losses to groundwater. The Chesapeake Bay Program Watershed Model separates cover crops into independent sets of practice elements, which stack onto a required core set of management elements known as Core Requirements; this practice is intended to enable reporting for each of these practice elements.

In addition, the practice is also intended to offer financial assistance to agricultural producers to provide an incentive to keep cover on agricultural land, increase biomass, and promote biological diversity while providing water quality benefits.

This practice bundles components of the following best management practices:

- SL-8 Protective Cover for Specialty Crops;
- SL-8B Small Grain and Mixed Cover Crop for Nutrient and Residue Management;
- SL-8H Harvestable Cover Crop;
- SL-8M Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management with Fall Manure Application;
- WQ-4 Legume Based Cover Crop

B. General Policies and Specifications

Review the following standards and specifications for the individual practice components of the Whole Farm Approach. Producers receiving cost-share funding for this practice must be implementing recommended nutrient application rates on all agricultural production acres in the Tract to be in compliance with this specification.

This is an annual practice with a cost-share payment issued annually. There is no guarantee that cost-share funds will be approved by the local District.

1. Eligibility

- i. This practice applies to crops and highly managed hay.
- ii. Cropland which receives applications of pelletized Class A biosolids that do not require a permit are eligible for the WFA-CC framework since these products are considered commercial fertilizer. However, participants should review each individual WFA-CC cover crop option for relevant nutrient application rules.

- iii. **Implementation of the WFA-NM is required to be eligible for this practice.** The Nutrient Management Plan shall also contain any specific production management criteria designated in the BMP components listed within this practice.

2. Ineligible

- i. Participants may **NOT** receive cost-share payments on the same crop and field for the WFA-CC and the following VACS practices simultaneously: SL-8, SL-8B, SL-8H, SL-8M, and WQ-4.

C. Rates

Cost-share rates for the following components may stack; see the WFA-CC Rate Worksheet for assistance with sign-up. The WFA-CC core and components are not eligible for tax credit.

- 1. **Implementation of the WFA-NM is required to be eligible for this practice. Core Nutrient Management Plan Requirement:** The state cost-share payment rate is **\$4.00 per acre** for all eligible acres on a Tract where cover crop is established and a Nutrient Management Plan is being fully implemented. Participants must provide the District a copy of the current Nutrient Management Plan, which includes amendments or revisions that match all management practices to be implemented in the cropping year to the District to receive the annual payment; and

2. **Cover Crop – Standard Cover Crop:**

- i. A state cost-share payment rate per acre is available for pure stands of rye as listed below:

	Rate
Early Pure Rye	\$55.00/acre
Standard Pure Rye	\$25.00/acre

- ii. A state cost-share payment rate per acre is available for listed small grains, brassicas, and/or mixtures as listed below:

	Rate
Early	\$45.00/acre
Standard	\$15.00/acre

- iii. An additional state cost-share payment rate of **\$5.00 per acre** is available for a mixed species cover crop that includes 50-75% small grain.
- iv. An additional state cost-share payment rate of **\$5.00 per acre** is available for a delayed cover crop kill down on May 1 or thereafter, but no later than June 1.

3. **Cover Crop – Fall Manure Application:**

- i. A state cost-share payment rate per acre is available for pure stands of Rye are listed below:

	Rate
Early Rye	\$40.00/acre
Standard Rye	\$18.00/acre

- ii. A state cost-share payment rate per acre is available for listed small grains, brassicas, and/or mixtures are below:

	Rate
Early	\$32.00/acre
Standard	\$10.00/acre

- iii. An additional state cost-share payment rate of **\$5.00 per acre** is available for a mixed species cover crop that includes 50-75% small grain.
- iv. An additional state cost-share payment rate of **\$5.00 per acre** is available for a delayed cover crop kill down on May 1 or thereafter, but no later than June 1.

4. **Protective Cover for Specialty Crops:** A state cost-share payment rate of **\$20.00 per acre** is available for protective cover for specialty crops.

5. **Cover Crop – Harvestable:** A state cost-share payment rate of **\$10.00 per acre** is available for harvestable cover crops.

6. **Cover Crop – Legume:** A state cost-share payment rate of **\$20.00 per acre** is available for legume cover crops.

D. Technical Responsibility

Technical and administrative responsibility for all Components of the WFA-CC 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.

WFA-CC Cover Crop – Standard Cover Crop

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's WFA-CC Standard Cover Crop option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Cost-share is provided to establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater.

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients. The purpose is to reduce erosion and the leaching of nutrients to ground water. This BMP is designed to utilize the maximum amount of residual nitrogen from previous surface nutrient applications and in the first three feet of the soil profile.

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.
2. No nutrients from any sources are allowed between the harvesting of the previous crop and March 1 of the next calendar year. No nutrients are allowed at planting.
3. Cost-share is provided as a variable flat rate per acre incentive to encourage proper establishment and to offset a portion of the cost of seed and the seeding operation.
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 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. A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.
6. Seeding rates shall be adjusted based on germination rates.
7. The practice is intended to provide an incentive to keep a vegetative cover on cropland,

which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit in of cover crops Virginia. This WFA-CC option is not intended to subsidize crops produced for commodity purposes [or for land already in permanent grass](#).

8. Harvesting for hay, haylage, silage, grain, straw or seed is not permitted. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through March 14. **In years of drought if producers anticipate a need for additional feed harvest, they should apply for the Harvestable Cover Crop option as harvesting is not allowed under this practice.**
9. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume [†] or	10 lbs./acre
b) Diakon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Diakon (forage or tillage) Radish	6-8 lbs./acre [°]
mixture with annual rye grass	10 lbs./acre
Winter-hardy <i>Brassica</i> (canola/rape)	5 -7 lbs./acre [°]
mixture with annual rye grass	10 lbs./acre

[†] legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

[°]Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

Higher seeding rates are recommended for aerial seeding and non-incorporation seeding methods.

10. In order to promote soil health through biodiversity and increased biological activity; an additional incentive is provided for mixed species cover crop consisting of 50-75% small grain.

11. Seeding of all seed types must be planted by the dates listed below:

Area	Early Planting Date	Standard Planting Date
Cities of Chesapeake & VA Beach	November 10	November 30
Coastal Plain (including the Eastern Shore)	November 10	November 30
Piedmont	October 25	November 15
Mountain and Valley	October 20	November 10

12. In all cases, this practice is subject to NRCS standard 340.

13. The cover crop must be killed using mechanical or chemical means or by grazing no earlier than March 15 and no later than June 1. The cover crop residue may be left on the field for conservation purposes or the cover crop or its residue may be tilled under. The practice will be considered complete once the cover crop has served its purpose and been killed.

14. In order to provide additional nutrient uptake and promote soil health through the increase of biomass above and below the soil surface, an additional incentive is provided for cover crops that are killed using mechanical, chemical or grazing means, on May 1 or thereafter, but no later than June 1.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate per acre for pure stands of Rye are below. Participants may also be eligible for the late kill down incentive.

	Rate
Early Rye	\$55.00/acre
Standard Rye	\$25.00/acre

i. The following list of rye cultivars are approved for the rye payments OR any other indeterminate growth tetraploid rye cultivar:

6250 Abruzzi	Paster
Abruzzi	Ryman
Dura	Virginia Abruzzi
Early Grazer	Wheeler
Elbon	Wintergrazer 70
Grazer	Winterking
Graze Master	

2. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate per acre for listed small grains,

brassicas, and/or mixtures are below. Participants may also be eligible for the mixed species and late kill down incentives.

	Rate
Early	\$45.00/acre
Standard	\$15.00/acre

3. Mixed Species Cover Crop that consist of 50%-75% small grain are eligible for a **\$5.00 per acre** bonus (i.e. pure stands of rye are not eligible).
4. Cover crops that are killed using mechanical, chemical or grazing means, on May 1 or thereafter, but no later than June 1, are eligible for a **\$5.00 per acre** bonus.

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.

WFA-CC Cover Crop – Cover Crop with Fall Manure Application

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's WFA-CC Cover Crop with Fall Manure Application option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Cost-share or tax credit are provided to establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater. This type of cover crop is planted upon cropland where manure is applied following the harvest of a summer crop and prior to cover crop planting. The crop may not be harvested in the spring.

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients, reduce erosion and the leaching of nutrients to ground water. The purpose is to increase above- and below-ground biomass returned to the soil by increasing the amount of manure amendments while minimizing nutrient loss risk, thereby providing adequate fertility to grow the extra biomass. This BMP is designed to utilize the maximum amount of residual nitrogen from previous surface nutrient applications and in the first three feet of the soil profile.

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.
2. Application of manure (organic) amendments are allowed between the harvesting of the previous crop and prior to planting.
3. 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 on which this practice will be implemented. 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).
4. A current Nutrient Management Plan must be on file with the District Prior to issuing cost-share. Cost-share is available for all acres with application rates in compliance with the NMP Spreading Schedule. Acres that receive application rates above NMP are not eligible for cost-share.
5. No nutrients from any source are allowed between the harvesting of the previous crop and March 1 of the next calendar year, except that use of manure (with less than 40

- lbs. N per acre tested) is permitted if all of the following conditions are met:
- i. Inadequate manure storage is available for the winter at the source;
 - ii. 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. The results of these samples may be used by the participant to support this practice.
 - iii. Manure is applied in accordance with a Nutrient Management Plan prepared by a Virginia certified Nutrient Management Planner.
 - iv. New plans shall be written for a period of one to three years. Before cost-share payment can be made the following items must be submitted:
 - a. A complete copy of the NMP 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).
6. No nutrients may be applied at planting
 7. If available as set forth in Section C.1. of this specification, cost-share is provided as a flat rate per acre incentive to encourage proper establishment of vegetative cover and to offset a portion of the cost of seed and the seeding operation.
 8. **A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter.** All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.
 9. Aerial seeding is not applicable for this practice.
 10. Seeding rates shall be adjusted based on germination rates.
 11. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The Cover Crop with Fall Manure Application option is not intended to subsidize winter crop produced for commodity purposes.
 12. Harvesting for hay, haylage, silage, grain, straw or seed is not permitted. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through March 14. **In years of drought, if producers anticipate a need for additional feed harvest, they should apply for the Harvestable Cover Crop option, as harvest is not allowed under this practice.**
 13. Land enrolled in this practice may not be enrolled in another state cover crop practice.

14. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume† or	10 lbs./acre
b) Diakon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Diakon (forage or tillage) Radish	6-8 lbs./acre°
mixture with annual rye grass	10 lbs./acre
Winter-hardy <i>Brassica</i> (canola/rape)	5 -7 lbs./acre°
mixture with annual rye grass	10 lbs./acre

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

Higher seeding rates are recommended for non-incorporation seeding methods. Aerial seeding is not eligible with this practice.

15. In order to promote soil health through biodiversity and increased biological activity; an additional incentive is provided for mixed species cover crop consisting of 50%-75% small grain.
16. Seeding of all seed types must be planted by the dates listed below:

Area	Early Planting Date	Standard Planting Date
Cities of Chesapeake & VA Beach	November 10	November 30
Coastal Plain (including the Eastern Shore)	November 10	November 30
Piedmont	October 25	November 15
Mountain and Valley	October 20	November 10

17. In all cases, this practice is subject to NRCS standard 340.

18. The cover crop must be killed using mechanical or chemical means or by grazing no earlier than March 15 and no later than June 1. The cover crop residue may be left on the field for conservation purposes or the cover crop or its residue may be tilled under. The practice will be considered complete once the cover crop has served its purpose and been killed.
19. In order to provide additional nutrient uptake and promote soil health through the increase of biomass above and below the soil surface, an additional incentive is provided for cover crops that are killed using mechanical, chemical or grazing means, on May 1 or thereafter, but no later than June 1.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate per acre for pure stands of Rye are below. Participants may also be eligible for the late kill down incentive.

	Rate
Early Rye	\$40.00/acre
Standard Rye	\$18.00/acre

- i. The following list of rye cultivars are approved for the rye payments OR any other indeterminate growth tetraploid rye cultivar:

6250 Abruzzi	Paster
Abruzzi	Ryman
Dura	Virginia Abruzzi
Early Grazer	Wheeler
Elbon	Wintergrazer 70
Grazer	Winterking
Graze Master	

2. For participants who are not receiving payment for cover crops from another source (funding) on the same acreage, a state cost-share payment rate per acre for listed small grains, brassicas, and/or mixtures are below. Participants may also be eligible for the mixed species and late kill down incentives.

	Rate
Early	\$32.00/acre
Standard	\$10.00/acre

3. Mixed Species Cover Crop that consist of 50%-75% small grain are eligible for a **\$5.00 per acre** bonus (i.e. pure stands of rye are not eligible).
4. Cover crops that are killed using mechanical, chemical or grazing means, on May 1 or thereafter, but no later than June 1, are eligible for a **\$5.00 per acre** bonus.

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.

WFA-CC Cover Crop – Protective Cover for Specialty Crops

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Protective Cover for Specialty Crops option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will provide an incentive to keep a cover on specialty crop land when it is not being used after harvest of a specialty crop. The purpose is to reduce wind and water erosion, thus improving water quality.

B. Policies and Specifications

1. Specialty crops for this practice (for the purpose of the Virginia Agricultural Cost-Share Program only) are defined as: Vegetables, tree crops, perennial vine crops, ornamentals, horticultural crops, tobacco, hemp, turf and other similar crops.
2. Specialty crops are given consideration due to bare sites and highly erodible soil conditions.
3. Soil loss rates must be computed for all applications for use in establishing priority considerations.
4. Payment is provided as a flat rate per acre incentive payment to encourage proper establishment and to offset a portion of the cost of seed and the seeding operation.
5. The seeding must be planted and certified no later than November 30. A good stand and growth of vegetated cover must be obtained in sufficient time to protect the area no later than December 15. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice. After the growth has been maintained for at least 90 days after seeding certification or until the conservation purpose has been served in accordance with NRCS 340, whichever is greater, it may be left on the land or incorporated.
6. Pasturing consistent with good management may be permitted. No vegetative growth may be harvested for hay or seed.
7. Seed type and rates shall be those listed:

Seed Type	Rate
Tetraploid Rye (pure strain only)	2.0 bu./acre
Winter Rye	1.5 bu./acre
Winter Barley	2.5 bu. /acre
Winter Annual Ryegrass	20 lbs./acre

Winter Wheat	1.5 bu./acre
Winter Hardy Oats	2.0 bu./acre
Small Grain Mixtures	1 bu./ac.with
a) legume†	10 lbs./acre or,
b) forage radish	6 lb./ acre or,
c) canola or rape	4 lbs./acre
Triticale	1.5 bu. /acre
Forage Radish	6-8 lbs. /acre
1) mixture with grass or legume†	4 lbs./acre
Winter-Hardy <i>Brassica</i> (canola/rape)	5 lbs./acre
1) mixture with grass or legume†	2-4 lbs./acre

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings.

Higher seeding rates are recommended for aerial seeding.

8. This practice is subject to NRCS standard 340 Cover Crop.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of **\$20.00 per acre** is available.

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.

WFA-CC Cover Crop – Harvestable Cover Crop

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Harvestable Cover Crop option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will provide an incentive to keep a cover on cropland, which will help prevent the loss of nutrients. The primary purpose is to reduce winter rain and wind generated erosion; a secondary purpose is to reduce the leaching of nutrients to ground water. This practice is not intended to subsidize winter crop production. This cover crop may be harvested after the requirements of this specification have been met.

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.
2. 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).
3. No nutrients from any sources are allowed between the harvesting of the previous crop and March 1 of the next calendar year, except that use of manure (with less than 40 lbs N. per acre tested value) is permitted if all of the following conditions are met:
 - i. Animals are raised as part of the applicant's operation;
 - ii. Inadequate manure storage is available for the winter;
 - iii. There are no other vegetated acres available to safely utilize the manure;
 - iv. Manure is applied in accordance with a Nutrient Management Plan prepared by a Virginia certified Nutrient Management Planner.
4. No nutrients may be applied at planting.
5. If available as set forth in Section C.1. of this specification, cost-share is provided as a flat rate per acre incentive to encourage proper establishment of vegetative cover and to offset a portion of the cost of seed and the seeding operation.

6. A good stand and good growth of vegetative winter cover must be obtained by December 15 to protect the area from nutrient leaching and runoff in the fall and winter. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice.
7. The practice is intended to provide an incentive to keep a vegetative cover on cropland, which will help prevent the loss of nutrients, by reducing surface erosion and absorbing any excess nutrients from the soil. Current research indicates that early planting of winter rye maximizes the environmental benefit of cover crops in Virginia. The Harvestable Cover Crop option is designed to provide an incentive to farmers to provide year round vegetative cover on as much acreage as possible; it is not intended to subsidize winter crops produced for commodity purposes [or land already in permanent grass](#).
8. Harvesting for hay, haylage, silage, grain, or seed is permitted after March 14. Pasturing consistent with sound agronomic management is permitted as long as 60% cover is maintained through March 14.
9. Land enrolled in this practice may not be enrolled in another state cover crop practice, and may not be converted to or from another cover crop practice. [Acres enrolled for this component are ineligible to receive payment for the WFA-NM Second Topdress Application of Anitrogen on Small Grain component](#).
10. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume [†] or	10 lbs./acre
b) Diakon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Diakon (forage or tillage) Radish	6-8 lbs./acre [°]
mixture with annual rye grass	10 lbs./acre
Winter-hardy <i>Brassica</i> (canola/rape)	5 - 7 lbs./acre [°]
mixture with annual rye grass	10 lbs./acre

[†] legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch

[°]Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings.

Higher seeding rates are recommended for aerial seeding and non-incorporation seeding methods.

11. Seeding of all seed types must be planted by the dates listed below:

Area	Planting Date
Cities of Chesapeake & VA Beach	November 10
Coastal Plain (including the Eastern Shore)	November 10
Piedmont	October 25
Mountain and Valley	October 20

12. Seeding rates shall be adjusted based on germination rates.
13. In all cases, this practice is subject to NRCS Standard 340.
14. The cover crop residue may be left on the field for conservation purposes, or the cover crop or its residue may be tilled under, or the cover crop may be harvested after March 14.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of **\$10 per acre** is available. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 1 and maintained through March 14.

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.

WFA-CC Cover Crop – Legume Based Cover Crop

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Legume Based Cover Crop option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will improve water quality by providing an adequate residue cover to prevent erosion and serve as desirable mulch for no-till cultivation. Water quality will also be enhanced by the nitrogen fixation of the legume in order to reduce applied amendments.

Cost-share is provided for utilizing an adequate legume mulch residue as a natural source of nitrogen to reduce applied soil amendment nitrogen.

B. Policies and Specifications

1. In order to be eligible for cost-share, 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).
2. Cost-share is authorized as an incentive on a per acre basis to add this practice within an established rotation.
3. The amount of nitrogen application must be reduced following a pure legume cover crop according to Table 7-1, Estimating Nitrogen Available to Succeeding Crops from Legumes on page 108 of DCR Nutrient Management Standards and Criteria (Revised 2014).
4. The amount of nitrogen application must be reduced following a mixed species legume cover crop according to the recommendations of a Nutrient Management Plan. A split application of nitrogen based upon the results of a PSNT may be applied as well.
5. Removal of the legume residue by baling or by any other means is not allowed. Grazing is not permitted for this practice.

6. Soil loss rates must be computed for all applications for use in ranking practice applications; applications that are the most cost-effective at preventing the most soil loss should receive cost-share approval first.
7. Mulch Cover
 - i. Existing stands: An adequate (minimum 60% legume cover and stand composition) cover that has been planted for at least one year prior to grain planting. Stand can be composed of clover, lespedeza, vetch or alfalfa. Seed must have been inoculated at time of planting.
 - ii. New stands: A legume cover crop can be planted during the fall prior to grain planting using the following recommendations. However, planting a cover crop in the fall is at the applicant's own risk, knowing cost-share assistance is not guaranteed.

Type	Rate	Seeding Date
Crimson Clover	20 lbs/acre	by September 28
OR		October 12 for the Coastal Plain
Crimson Clover (with any single grain or single grass below)	10.0 lbs/acre	
1) Annual ryegrass	10.0 lbs/acre	
2) Rye	1.0 bu./acre	
3) Barley	1.0 bu./acre	
4) Oats	1.0 bu./acre	
OR		
Ladino Clover (with either)	2 lbs/acre	
1) Tall Fescue	15.0 lb./acre	
2) Orchard grass	10.0 lb./acre	
OR		
Austrian Winter Pea	30-40 lbs/acre	by October 26
OR		
Austrian Winter Pea (with any single grain or single grass below)	15-20 lbs/acre	
1) Annual ryegrass	10.0 lbs/acre	
2) Rye	1.0 bu./acre	
3) Barley	1.0 bu./acre	
4) Oats	1.0 bu./acre	
OR		
Austrian Winter Pea (with either)	15-20 lbs/acre	
1) Tall Fescue	15.0 lb./acre	
2) Orchard grass	10.0 lb./acre	
OR		
Hairy Vetch	20 lbs/acre	by October 26
OR		
Hairy Vetch (with any single grain or single grass below)	10.0 lbs/acre	
1) Annual ryegrass	10.0 lbs/acre	
2) Rye	1.0 bu./acre	
3) Barley	1.0 bu./acre	
4) Oats	1.0 bu./acre	
OR		
Hairy Vetch (with either)	10 lbs/acre	
1) Tall Fescue	15.0 lb./acre	
2) Orchard grass	10.0 lb./acre	

- iii. Vetch is not recommended in rotations containing small grains. It is very important that seeding dates be met to insure adequate fall growth.
- iv. All seed is required to be inoculated.
- v. Method:
 - a) No till drill

- OR**
 - b) Aerial Seeding
 - OR**
 - c) Conventionally drilled as long as 30% of previous crop residue remain
 - OR**
 - d) Broadcast as long as 30% of previously crop residue remains.
- 8. Legume cover crop must be left on surface intact to serve as mulch for the no-till planting of grain crops.
- 9. Applicant must submit documentation (fertilizer recommendation and bills, or signed statement) indicating that the applied nitrogen fertilizer used that crop year (grain) was reduced, or will be reduced only in cases where nitrogen will be applied after June 1, according to Table 7-1 on page 108 “Estimated Nitrogen Availability to Succeeding Crops from Legumes” of DCR Nutrient Management Standards and Criteria (07/2014) per acre from his normal application or rate that was recommended. Consult local extension agent for exact recommendations. Districts shall utilize the signed statement example found on page **WQ-4 - 5** of the Virginia Agricultural Cost-Share BMP Manual and place in the participant’s case file.
- 10. This practice must be implemented on the fields consistent with NRCS Standards 340 Cover Crops. This practice is for use only on land being planted to a grain crop. No till planting must be established into an existing legume stand or newly established legume stand according to the standards of NRCS 329 Residue and Tillage Management, No Till/Strip-Till/Direct Seed, and 340 Cover Crops.
- 11. The practice may be certified complete once the grain crop has been planted using no-till methods into the legume mulch cover and all applicable specifications listed above have been met.

C. Rate(s)

- 1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of **\$20.00 per acre** is available.

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.

Created April 2022

WFA-CC Rate Worksheet

Component	Rate per Acre	Participating Acres
<u>Core WFA-CC Base Payment*</u>	<u>\$4.00/acre</u>	
Standard Cover Crop		
Early Pure Rye	\$55.00/acre	
Standard Pure Rye	\$25.00/acre	
Early - Listed Small Grains, Brassicas, and/or Mixtures	\$45.00/acre	
Standard - Listed Small Grains, Brassicas, and/or Mixtures	\$15.00/acre	
Mixed Species Cover Crop including 50-75% Small Grain	\$5.00/acre	
Cover Crop Kill Down on May 1 or Thereafter, but No Later than June 1.	\$5.00/acre	
Cover Crop with Fall Application of Manure		
Early Pure Rye	\$40.00/acre	
Standard Pure Rye	\$18.00/acre	
Early - Listed Small Grains, Brassicas, and/or Mixtures	\$32.00/acre	
Standard - Listed Small Grains, Brassicas, and/or Mixtures	\$10.00/acre	
Mixed Species Cover Crop including 50-75% Small Grain	\$5.00/acre	
Cover Crop Kill Down on May 1 or Thereafter, but No Later than June 1.	\$5.00/acre	
Protective Cover for Specialty Crops	\$20.00/acre	
Harvestable Cover Crop	\$10.00/acre	
Legume Cover Crop	\$20.00/acre	

*The Core WFA-CC Base Payment applies only to eligible acres on a Tract where cover crop is established and a Nutrient Management Plan is being fully implemented. Acres where cover crop is not established and maintained does not qualify for this payment.

Name of Practice:
WHOLE FARM APPROACH – NUTRIENT MANAGEMENT BUNDLE
DCR Specification for No. WFA-NM

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Whole Farm Approach – Nutrient Management practice for bundled agricultural best management practices which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will collect data and assure that implemented Nutrient Management Plans are accurate and up to date in order to minimize the impact of nutrients used in crop and highly managed hay production, and reduce nutrient losses to groundwater. The Chesapeake Bay Program Watershed Model separates nutrient management into independent sets of practice elements for Nitrogen and Phosphorus, which stack onto a required core set of management elements known as Core Requirements; this practice is intended to enable reporting for each of these practice elements.

In addition, the practice is also intended to offer financial assistance to agricultural producers to ensure implementation of core nutrient management requirements and support multiple enhanced nutrient management components such as precision nutrient management. 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.

This practice bundles components of the following best management practices:

- NM-3C Split Application of Nitrogen on Corn at the 6-Lead Stage or at Least 15" in Height;
- NM-4 Late Winter Split Application of Nitrogen on Small Grains;
- NM-5N Precision Nutrient Management on Cropland – Nitrogen Application;
- NM-5P Precision Nutrient Management on Cropland – Phosphorus Application.

B. General Policies and Specifications

Review the following standards and specifications for the individual practice components of the Whole Farm Approach. Producers receiving cost-share funding for this practice must be implementing recommended nutrient application rates on all agricultural production acres in the Tract to be in compliance with this specification.

This is an annual practice with a cost-share payment issued annually. There is no guarantee that cost-share funds will be approved by the local District.

1. Eligibility

- i. This practice applies to crops and highly managed hay.

- ii. Cropland which receives applications of pelletized Class A biosolids that do not require a permit are eligible for the WFA-NM framework since these products are considered commercial fertilizer. However, many of the individual WFA-NM nutrient application options are not allowed on fields that have received past applications of biosolids. Participants should review each option for relevant biosolids rules.
 - iii. The Nutrient Management Plan must cover at least twelve months of crop and management practices after the begin date on the NMP cover sheet.
 - iv. Plans must be developed based on soil analyses taken within a three-year period prior to the begin date of the plan and must be performed by soil testing laboratories approved by DCR.
 - v. **Core Nutrient Management Plan Requirement** - A Nutrient Management Plan must be written according to the Nutrient Management and Training Certification Regulations, 4VAC50-85 et seq.
 - vi. In order to verify implementation of the NMP, an applicant must provide one of the following to the District:
 - a. A completed verification form (DCR199-231, 04/18);
 - b. A statement signed by the Nutrient Management Planner and producer that nutrients were applied during this period according to a NMP;
 - c. For new producers, or tracts without a current Nutrient Management Plan, nutrient application records for the preceding 12 months.
2. Ineligible
- i. Participants may **NOT** receive cost-share payments on the same crop and field for the WFA-NM and the following VACS practices simultaneously: NM-3C, NM-4, NM-5N, NM-5P.

C. Rates

Cost-share rates for the following components may stack; see the WFA-NM Rate Worksheet for assistance with sign-up. The WFA-NM core and components are not eligible for tax credit.

1. **Core Nutrient Management Plan Requirement:** The state cost-share payment rate is **\$6.00 per acre** for all eligible acres on a Tract, including cropland and/or highly managed hayland, that receives commercial fertilizer or a combination of imported or on-farm generated animal manure and commercial fertilizer. Any manure applied must be from a farm within Virginia to receive cost-share payment. Participants must provide the District a copy of the current plan, which includes amendments or revisions that match all management practices to be implemented in the cropping year to the District to receive the annual payment.
2. **In-Furrow OR Banded (2" x 2") Application of Nitrogen and/or Phosphorus:**
 - i. A state cost-share payment rate of **\$2.50 per acre** is available for either a banded (2" x 2") application or in-furrow application of Nitrogen.
 - ii. A state cost-share payment rate of **\$2.50 per acre** is available for either a banded (2" x 2") application or in-furrow application of Phosphorus.

3. **First Sidedress of Nitrogen on Corn:** A state cost-share payment rate of **\$2.50 per acre** is available for the first sidedress application or injection, based on the contracted sidedress application acreage.
4. **Second Topdress Application of Nitrogen on Small Grain:** A state cost-share payment rate of **\$2.50 per acre** is available for the second topdress application. If only one late winter application is made, no reimbursement is to be provided.
5. **Nitrogen Management:**
 - i. A state cost-share payment rate of **\$5.00 per acre**, is available for the acres receiving a **second sidedress application of nitrogen** on corn, cotton, and highly managed hayland (other than alfalfa).
 - ii. A state cost-share payment rate of **\$5.00 per acre**, is available for the acres receiving a **third topdress application of nitrogen** on small grains.
 - iii. A state cost-share payment rate of **\$7.50 per acre**, is available for the acres receiving a **variable rate application of nitrogen** on row crops or small grains.
6. **Phosphorus Management:** A state cost-share payment rate of **\$7.50 per acre** is available for the acres receiving **variable rate application of phosphorous** on row crops, small grains, or highly managed hayland production systems.

D. Technical Responsibility

Technical and administrative responsibility for all Components of the WFA-NM 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 verification procedures and any other quality control measures.

WFA-NM Nitrogen/Phosphorus Management Option – In-Furrow or Banded Applications:

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's WFA-NM Nitrogen/Phosphorus Management Option for In-Furrow or Banded Applications which are applicable to all contracts entered into with respect to this practice.

A. Description and Purpose

This practice will encourage the in-furrow or banded applications, also known as 2" x 2" applications, of nitrogen and phosphorus. For fields receiving only nitrogen fertilizer, in-furrow or banded applications will be based upon the Nutrient Management Plan (NMP). For fields receiving nitrogen and phosphorus OR only phosphorus fertilizer, in-furrow or banded applications will be based upon soil sample results and the Nutrient Management Plan (NMP). All in-furrow or banded applications will be applied at planting. Banded 2" x 2" applications are placed two inches beside and two inches below the seed.

B. Policies and Specifications

1. Eligibility for this practice is limited to the length of the plan recommending the in-furrow or banded practice.
2. A producer must provide written verification to the District prior to payment, such as records, a work order, or bill.
3. The total number of crop acres specified by the Nutrient Management Plan to be applied in-furrow or banded will determine the maximum acres that qualify, with payment being made only to those acres which actually receive an in-furrow or banded application of nitrogen and/or phosphorus.
4. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. 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).
5. 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.
6. 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.

7. The producer must provide a written verification of contracted in-furrow or banded application cost to the District within two weeks of the sample analysis.
8. Application of the in-furrow or banded nitrogen and/or phosphorus must be made at time of planting.
9. Total nitrogen to be applied to the cornfield must be consistent with the Nutrient Management Plan consistent with procedures contained in the Nutrient Management Training and Certification Regulations (4VAC50-85 et. seq).
10. This is an annual practice.

C. Rate(s)

1. **In-Furrow or Banded Nitrogen:** For participants who are not receiving payment for in-furrow or banded application of nitrogen from any other funding source on the same acreage, a state cost-share payment rate of **\$2.50 per acre** for **EITHER** a banded (2" x 2") application **OR** in-furrow application (i.e. not both), shall be paid based on the contracted in-furrow or banded application acreage. Participants may also be eligible for in-furrow or banded (2" x 2") application of phosphorus.
2. **In-Furrow or Banded Phosphorus:** For participants who are not receiving payment for in-furrow or banded application of phosphorus from any other funding source on the same acreage, a state cost-share payment rate of **\$2.50 per acre** for **EITHER** a banded (2" x 2") application **OR** in-furrow application (i.e. not both), shall be paid based on the contracted in-furrow or banded application acreage. Participants may also be eligible for in-furrow or banded (2" x 2") application of nitrogen.

WFA-NM Nitrogen Management Option:
First Sidedress Application of Nitrogen on Corn

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's WFA-NM Nitrogen Management Option for the First Sidedress Application of Nitrogen on Corn which are applicable to all contracts entered into with respect to this practice.

A. Description and Purpose

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

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 applications.

B. Policies and Specifications

1. Eligibility:

- i. Eligibility for this practice is limited to the length of the plan recommending the sidedress practice.
- ii. The producer must provide written verification to the District, such as a work order or bill, 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 sidedressed will determine the maximum acres to qualify.
- iv. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. 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 in accordance with the PSNT.
 - 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. The producer must sign up prior to April 1 and provide written verification of contracted sidedress application cost, including the PSNT results if applicable, 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 inches in height.
6. Total nitrogen to be applied to the field 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 \$2.50 per acre. This is for manure only; biosolids are not eligible for payment.
8. This is an annual practice.

C. Rate(s)

1. **First Sidedress Application of Nitrogen on Corn:** For participants who are not receiving payment for a sidedress application of nitrogen to corn from any other funding source on the same acreage, a state cost-share payment rate of **\$2.50 per acre** for the sidedress application shall be paid based on the contracted sidedress application acreage. Producers applying their own sidedress application will receive \$2.50 per acre applied.

WFA-NM Nitrogen Management Option:
Second Topdress Application of Nitrogen on Small Grain

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Second Topdress Application of Nitrogen on Small Grain option which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Late winter split application of nitrogen on small grain consists of applying nitrogen during the late winter in two increments based on the progression of growth of the small grain crop. Applying nitrogen based on the progression of growth of the small grain crop in the late winter minimizes the amount lost through leaching and run off.

B. Policies and Specifications

1. Eligibility

- i. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. 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).
- ii. The total number of small grain acres specified by the Nutrient Management Plan to receive split nitrogen applications will determine the maximum acres to qualify, with payment being made only to those acres which actually receive split nitrogen applications.
- iii. Eligibility for this practice is limited to the length of the plan recommending the split nitrogen application.
- iv. Farmers must sign up prior to February 1 and provide written verification (such as a work order or bill) to the District within two weeks of the second application and prior to cost-share payment.

2. This cost-share practice is for the split application of late winter nitrogen to small grain. Each application must contain nitrogen as a component of the material applied.

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 should be determined by a nitrate test.

4. The amount of late winter nitrogen to be applied to the small grain field must be determined by using the criteria contained in the *Virginia Nutrient Management Standards and Criteria, revised July 2014*.
5. To ensure the impact of nitrogen to ground and surface waters is minimized in small grain production, nitrogen rates at planting and following applications shall follow recommendations contained in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014*.
6. Compliance checks with this practice may be conducted by the District or appropriate agency personnel throughout the life of the practice and failure to comply may result in forfeiture of cost-share funds.
7. Sample collection for any soil nitrate tests in the fall, tissue tests, or tiller counts should be done by the plan developer, an employee of the plan developer, or the producer.
8. In lieu of tiller counts and tissue tests, as listed in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014*, late winter split application of nitrogen must not exceed 40 pounds of nitrogen for the first application and must not exceed 50 pounds of nitrogen for the second application.
9. For late winter split application of nitrogen, the two applications must be at least 30 days apart with the first application no earlier than growth stage 25, with nitrogen rates determined based on tiller counts and tissues tests as explained in the *Virginia Nutrient Management Standards and Criteria revised July, 2014*.
- 9.10. Acres enrolled for this component are ineligible to receive payment for the SL-8H or the WFA-CC Cover Crop – Harvestable component.
- 10.11. This is an annual practice.

C. Rate(s)

1. **Second Topdress Application of Nitrogen on Small Grain:** For participants who are not receiving payment for a late winter split application of nitrogen on small grains from any other funding source on the same acreage, a state cost-share payment rate of **\$2.50 per acre** for the second application in the late winter. **If only one late winter application is made, no reimbursement is to be provided.**

WFA-NM Nitrogen Management Option:
Precision Nutrient Management Application - Nitrogen

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Precision Nutrient Management Application - Nitrogen option for the enhanced nutrient management of nitrogen on crop land which are applicable to all contracts entered into with respect to this practice.

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 production systems (see Glossary for definition).

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 of nitrogen applies to corn, cotton, small grains crops, grain sorghum/milo, canola, specialty crops, produce, turf/sod farms 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, which is not eligible). Other macro-micro nutrients or soil amendments may be applied concurrently.

B. Policies and Specifications

1. 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). 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.
 - ii. Variable rate nitrogen applications or zone application of nitrogen based upon the soil test results of (subfield) sampling on row crops, specialty crops or small grains. Other macro-micro nutrients may be applied concurrently.
 - iii. Three or more split applications of nitrogen on small grains.

- iv. Two or more split sidedress applications of nitrogen on corn or cotton.
 - v. Two or more applications of nitrogen on highly managed hayland production systems (other than alfalfa, which is not eligible).
 - vi. Injection at sidedress.
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. All split applications will be applied at a growth stage when the plant is entering the highest demand for nitrogen. Application of any sidedress nitrogen, including the first split, must be applied after the corn is at the 5-leaf stage or at least 12" in height.
 5. Subsequent sidedress applications must be applied at least 14 days after the most recent application
 6. Total nitrogen application rates (including pre-plant and sidedress) on corn shall not exceed 1 lb./bu. expected crop yield.
 7. Where this practice is applied, there must be a note in the narrative or elsewhere in the Nutrient Management Plan indicating that the soils were sampled in an appropriate manner.
 8. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. 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).
 9. Acres receiving a zero application rate for a second sidedress application of nitrogen based on a PSNT result also qualify for a payment rate of \$5.00 per acre. Acres receiving a zero application rate for a variable rate application of nitrogen based on a PSNT result also qualify for a payment rate of \$7.50 per acre.
 10. 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.

11. Participants **shall** provide written verification of the recommendation and the resulting application(s) to the District within 45 days of the final nitrogen application and prior to payment e.g. results of laboratory test, a work order or bill; and as-applied application map of field.
12. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
13. Fields that have received applications of biosolids within the previous 24 months are not eligible.
14. This is an annual practice.
15. *This practice does not apply to the first or second split application of nitrogen on small grains. See the WFA-NM Second Topdress Application of Nitrogen on Small Grain for more information.*

C. Rates

2. **Second Sidedress Application of Nitrogen:** For participants who are not receiving payment for a second sidedress of nitrogen on corn, cotton, or a second topdress application on highly managed hayland (other than alfalfa) from any other funding source on the same acreage, a state cost-share payment rate of **\$5.00 per acre per year** is available.
3. **Third Topdress Application of Nitrogen on Small Grains:** For participants who are not receiving payment for a third topdress application of nitrogen on small grains from any other funding source on the same acreage, a state cost-share payment rate of **\$5.00 per acre per year** is available.
4. **Variable Rate Nitrogen:** For participants who are not receiving payment for a variable rate or zone application of nitrogen on row crops or small grain from any other funding source on the same acreage, a state cost-share payment rate of **\$7.50 per acre per year** is available.
5. 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.

WFA-NM Phosphorus Management Option:
Precision Nutrient Management Application - Phosphorus

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's WFA-NM Precision Nutrient Management Application - Phosphorus Management option for the enhanced nutrient management of phosphorus on crop land which are applicable to all contracts entered into with respect to this practice.

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 intended for row crops, small grains, grain sorghum/milo, canola, specialty crops, produce, turf/sod farms 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, whether they have organic nutrient applications or not, with the exception of biosolids applications.

The variable rates of phosphorus listed below in Section B 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. 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.
3. Total phosphorus application rates shall not exceed the zone or grid sampling recommendations.

4. In order to be eligible for cost-share, 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).
5. Acres receiving a zero application rate based upon the soil test results of zone or grid (subfield) sampling recommendations also qualify for a payment rate of \$7.50 per acre.
6. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones, grids, 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. Zones shall be no larger than 20 acres in size and based upon soil type, whereas grid size shall be one to four acres in size.
7. The participant **must** provide written verification of the recommendation(s), the resulting application(s), and an as-applied application map of field(s) to the District within forty-five days of the phosphorous application and prior to payment. Examples include results of laboratory test(s), a work order or detailed bill/invoice showing application rates.
8. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
9. Fields that have received applications of biosolids within the previous 24 months are not eligible.
10. This is an annual practice.

C. Rates

1. **Variable Rate Phosphorus:** For participants who are not receiving payment for a variable rate application of phosphorous on row crops, small grains or highly managed hayland production systems from another funding source on the same acreage, a state cost-share payment rate of **\$7.50 per acre per year** is available.
2. 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.

WFA - NM Rate Worksheet

Component	Rate Per Acre	Participating Acres
Core Nutrient Management Plan Requirement	\$6.00/acre	
In-Furrow or Banded Nitrogen	\$2.50/acre	
In-Furrow or Banded Phosphorus	\$2.50/acre	
First Sidedress Application of Nitrogen	\$2.50/acre	
Second Topdress Application of Nitrogen	\$2.50/acre	
Second Sidedress Application of Nitrogen	\$5.00/acre	
Third Topdress Application of Nitrogen	\$5.00/acre	
Variable Rate Nitrogen	\$7.50/acre	
Variable Rate Phosphorus	\$7.50/acre	

Name of Practice: RIPARIAN GRASS FILTER STRIPS DCR
Specification No. WQ-1

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

A. Description and Purpose

Riparian Grass filter strips are vegetative buffers that are located along the banks of water courses to filter runoff, anchor soil particles, and protect banks against scour and erosion. Even the best conservation measures on a farm allow some soil movement during heavy rains. Filter strips are the stream's last line of defense against pollution. Since filter strips trap eroded soil, they help keep sediment out of streams. The strips also improve water quality by filtering out fertilizers, pesticides, and microorganisms that otherwise might reach waterways. In addition, grassriparian grass filter strips along streams serve as environmental corridors. They provide valuable food, cover, and travel ways for some wildlife species. As a result, they permit a greater diversity of wildlife, which, in turn, contributes to a more stable environment. Also, these living filters are aesthetically pleasing.

Cost-share will be provided to install and maintain grassriparian grass filter strips that are located adjacent to cropland, ~~permanent hayland (when recommended in an approved Resource Management Plan)~~, or animal holding areas.

B. Policies and Specifications

1. 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 on which this practice will be implemented. 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).
2. Filter strips planned for sediment and related pollutant control are subject to the following state specifications:
 - i. GrassRiparian grass filter strips shall be designed and installed to filter sheet flow, rather than concentrated flow. If concentrated flow will occur, land smoothing or the use of some other BMP or combination of BMPs may be required (such as Grassed Waterways and Structures for Water Control).
 - ii. Filter strips must be a minimum 35' in width. The maximum filter width eligible for cost-share payment and tax credit is 100', except for wider

segments of a contoured filter where the contour is typically 35' to 100' wide.

3. Riparian grass filter strips must be located within 100' ~~feet~~ of a live or intermittent waterway, open sinkhole, abandoned well or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. An intermittent waterway is considered as being, but not limited to, any channel or flood-prone area where periodic water flow or storage is diverted by surface drainage. ~~Grass~~Riparian grass filter strips may be installed along intermittent waterways where judged appropriate and feasible by the local technical authority.
4. All trees, stumps, brush, rocks and similar materials that may interfere with installing the filter strip should be removed. The materials should be disposed of in a manner that will not degrade the quality of the environment or interfere with the proper functioning of the filter strip.
- 4.5. No-till planting is preferable. If grading is necessary, conventional equipment can be used for preparing the seedbed, fertilizing and maintenance.
- 5-6. Lime and fertilize according to soil test to assure proper establishment. Established filter strips shall not receive any applications of nitrogen or phosphorus.
- ~~6. Hayland is considered cropland if it is in rotation with row crops during the five-year life span of the grass filter strip.~~
7. Soil loss rates must be computed for all applications for use in establishing priority considerations and reflect at minimum a 3-year cropping history.
8. State cost-share and tax credit will be provided only one time per filter strip, while that land is under the same ownership.
9. Select an appropriate planting mix for filtering runoff and protecting water quality from the NRCS Plant Establishment Guide for Virginia.
10. Maintenance
 - i. In cropland, a vegetative filter strip should be maintained on each side of the watercourse. The buffer must be maintained as perennial species for the practice lifespan.
 - ii. Protect the filter strip from damage by livestock. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. If at any time during the practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
 - iii. Do not use as a roadway.
 - iv. Avoid operations that leave tillage or wheel marks.
 - v. Woody stems should not be allowed to exceed 2 inches in diameter.

vi. Avoid damaging filter area with herbicides.
~~Avoid damaging filter area with herbicides.~~

~~v.vii. Hay may be harvested from grass filter strips except when using wildlife option.~~

11. Filter strips planned for runoff from concentrated livestock areas or controlled overland flows for the treatment of liquid wastes are subject to NRCS Specification 393 Filter Strip. This practice is subject to NRCS Standards 393 Filter Strip, 466 Land Smoothing, 572 Spoil Spreading and Leveling.
12. All practice components, including the vegetative cover implemented, must be maintained for a minimum of five years following the calendar year of certification of completion. Cost-share and tax credit must be refunded if the operator destroys the cover during this time. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. 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 verification 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 cost, or a maximum of \$100/acre for 35 feet to 100 feet wide filter strips. WQ-1 installed on permanent hayland in accordance with an RMP is eligible for \$100/acre.~~

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 buffer width and lifespan of the practice. The buffer payment rates shall be provided for a maximum of 15 acres. The rates including the buffer payment rates are:

<u>Minimum Riparian Grass Filter</u>	<u>Lifespan</u>	<u>Cost-share rate</u>	<u>Buffer payment rate</u>	<u>Buffer payment cap</u>
<u>50'</u>	<u>15 years</u>	<u>100%</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>
	<u>10 years</u>	<u>95%</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>
<u>35'</u>	<u>15 years</u>	<u>90%</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>
	<u>10 years</u>	<u>85%</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>

NOTE: The buffer payment cap is the maximum a participant can be paid per tract even when multiple practices with buffer payments are approved in a given program year. (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and; WQ-1).

- 2 As set forth by Virginia Code, the Commonwealth currently provides a tax credit for

implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

3. If a participant receives cost-share from any source (state, federal or private), only the participant's eligible out-of-pocket share of the project cost 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 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 2024

METHOD OF CALCULATING EROSION REDUCTION FOR FILTER STRIP (WQ-1)

The effectiveness of vegetative filter strip is directly related to a variety of site-specific conditions. Except for the actual area of grass vegetation, filter strips do not reduce active erosion in the contributing field, but only trap a percentage of the delivered sediment passing through this grass vegetation. Not all of the sediment that occurs in the field reaches the filter strip. For these reasons, the effectiveness of a filter strip must take into account sediment delivery and trapping efficiency in the calculation of water quality benefits.

Step 1: Determine size of filter strip and erosion rate.

- a. Determine the length (ft.) and width (ft) for calculating the area (acres) of the filter strip. Acres will be the extent technically authorized.
- b. Using RUSLE2, determine soil loss occurring in the field. Place this erosion rate in under the Sheet and Rill (tons/ac/yr) erosion reduction field in the Tracking Program

Step 2: Determine trapping efficiency of the filter area.

- a. Determine the amount of delivered sediment to the filter strip by calculating the effective length of slope of the contributing field to the filter area. Maximum length allowed is 400 feet. Multiply the length of the filter strip (lfs) from Step 1 times the length of slope. Divide this number by 43,560 sq. ft. /acre to determine the contributing acreage.

$$\frac{\text{Length of Filter Strip} \times \text{Length of Slope}}{43,560}$$

Next, the contributing acreage is multiplied by the soil loss rate occurring on the field (previously calculated in Step #1) times a sediment delivery ratio (SDR) occurring in the field itself. Assume a SDR of 0.5.

$$\text{Area} \times \text{Erosion Rate} \times \text{SDR} = \text{Delivered Sediment Load}$$

- b. Determine the amount trapped by multiplying the delivered sediment load times the trapping coefficient of the vegetation.

$$\text{Sediment Load} \times \text{Trapping Coefficient} = \text{Sediment Trapped}$$

Use one of the following coefficients for your calculations:

<u>Strip Width</u>	<u>Coefficient</u>
35'	0.35
50'	0.50
100'	0.75

This trapping efficiency expressed in tons/year is placed in under Gross Erosion Reduction in tons/yr. field of the Tracking Program.

Example: 1,000-foot filter strip is planned for a 50-acre field; the slope length of the contributing area is approximately 250 feet. US soil loss rate is approximately 6 tons/ac./year. The filter strip itself is 50' wide.

Step 1: Size of filter area is to be placed in Extent Requested - 1.15 acres.

Erosion rate of 6 tons/ac/year to be placed in Sheet & Rill Reduction.

Step 2: Trapping efficiency

a. Delivered Sediment

Length of filter strip (1,000) x Length of Slope (250) 43,560

1,000 x 250 = 5.7 acres of contributing field 43,560

Area (5.7 ac) x Erosion Rate (6 tons/ac/yr) x SDR (0.5)

5.7 x 6 x 0.5 = Delivered Sediment Load of 17.1

b. Trapping coefficient

Sediment Load (17.1) x Trapping Coefficient (0.5) = 8.55 Round 8.55 up to 9

and place under Gross Erosion Reduction.

Name of Practice: LEGUME BASED COVER
CROP DCR Specifications for No. WQ-4

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

A. Description and Purpose

This practice will improve water quality by providing an adequate residue cover to prevent erosion and serve as desirable mulch for no-till cultivation. Water quality will also be enhanced by the nitrogen fixation of the legume in order to reduce applied amendments.

Cost-share or tax credit is provided for utilizing an adequate legume mulch residue as a natural source of nitrogen to reduce applied soil amendment nitrogen.

B. Policies and Specifications

1. 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 on which this practice will be implemented. 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).
2. Cost-share or tax credit is authorized as an incentive on a per acre basis to add this practice within an established rotation.
3. The amount of nitrogen application must be reduced following a pure legume cover crop according to Table 7-1: "*Estimating Nitrogen Available to Succeeding Crops from Legumes*", Page 108, DCR Nutrient Management Standards and Criteria (Revised 2014).
4. The amount of nitrogen application must be reduced following a mixed species legume cover crop according to the recommendations of a Nutrient Management Plan. A split application of nitrogen based upon the results of a PSNT may be applied as well.
5. Removal of the legume residue by baling or by any other means is not allowed. Grazing is not permitted for this practice.

6. Soil loss rates must be computed for all applications for use in ranking practice applications; applications that are the most cost-effective at preventing the most soil loss should receive cost share approval first.
7. Mulch Cover
 - i. Existing stands: An adequate cover (minimum 60% legume cover and stand composition) that has been planted for at least one year prior to grain planting. Stand can be composed of clover, lespedeza, vetch or alfalfa. Seed must have been inoculated at time of planting.
 - ii. New stands: A legume cover crop can be planted during the fall prior to grain planting using the following recommendations. However, planting a cover crop in the fall is at the applicant's own risk, knowing cost-share assistance is not guaranteed.

Type	Rate	Seeding Date
Crimson Clover	20 lbs/acre	by September 28
OR		October 12 for the Coastal Plain
Crimson Clover (with any single grain or single grass below)	10.0 lbs/acre	
1) Annual ryegrass	10.0 lbs/acre	
2) Rye	1.0 bu./acre	
3) Barley	1.0 bu./acre	
4) Oats	1.0 bu./acre	
OR		
Ladino Clover (with either)	2 lbs/acre	
1) Tall Fescue	15.0 lb./acre	
2) Orchard grass	10.0 lb./acre	
OR		
Austrian Winter Pea	30-40 lbs/acre	by October 26
OR		
Austrian Winter Pea (with any single grain or single grass below)	15-20 lbs/acre	
1) Annual ryegrass	10.0 lbs/acre	
2) Rye	1.0 bu./acre	
3) Barley	1.0 bu./acre	
4) Oats	1.0 bu./acre	
OR		
Austrian Winter Pea (with either)	15-20 lbs/acre	
1) Tall Fescue	15.0 lb./acre	
2) Orchard grass	10.0 lb./acre	
OR		
Hairy Vetch	20 lbs/acre	by October 26
OR		
Hairy Vetch (with any single grain or single grass below)	10.0 lbs/acre	
1) Annual ryegrass	10.0 lbs/acre	
2) Rye	1.0 bu./acre	
3) Barley	1.0 bu./acre	
4) Oats	1.0 bu./acre	
OR		
Hairy Vetch (with either)	10 lbs/acre	
1) Tall Fescue	15.0 lb./acre	
2) Orchard grass	10.0 lb./acre	

Vetch is not recommended in rotations containing small grains. It is very important that

seeding dates be met to ensure adequate fall growth.

- iii. All seed is required to be inoculated.
- iv. Method:
 - a) No till drill
OR
 - b) Aerial seeding
OR
 - c) Conventionally drilled, as long as 30% of previous crop residue remains
OR
 - d) Broadcast as long as 30% of previously crop residue remains
- 8. Legume cover crop must be left on surface intact to serve as mulch for the no-till planting of grain crops.
- 9. Applicant must submit documentation (fertilizer recommendation and bills, or signed statement) indicating that the applied nitrogen fertilizer used that crop year was reduced, or will be reduced only in cases where nitrogen will be applied after June 1, according to Table 7-1 on page 108 “Estimated Nitrogen Availability to Succeeding Crops from Legumes” of DCR Nutrient Management Standards and Criteria (07/2014) per acre from the normal application or rate that was recommended. For any acres planted in Austrian winter pea, the estimated nitrogen availability to succeeding crops will be estimated at the same rate as red clover or crimson clover. Consult a local Extension Agent for exact recommendations. Districts shall utilize the signed statement example found on page **WQ-4 - 5** and place in the participant’s case file.
- 10. This practice must be implemented on the fields consistent with NRCS Standards 340 Cover Crops. This practice is for use only on land being planted to a grain crop. No till planting must be established into an existing legume stand or newly established legume stand according to the standards of NRCS 329 Residue and Tillage Management, No Till/Strip-Till/Direct Seed, and 340 Cover Crops.
- 11. The practice may be certified complete once the grain crop has been planted using no-till methods into the legume mulch cover and all applicable specifications listed above have been met.

C. Rate(s)

- 1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of \$30 per acre is available.
- 2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed

in the Tax Credit Guidelines of the VACS Manual.

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 2021

Nitrogen Reduction Form for WQ-4 Certification

District Name: _

Printed Applicants Name: _

Applicants Address: _

Nitrogen Reduction

<u>Fields</u>	<u>Acreage</u>	<u>(lbs/ac)</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I hereby certify that the above information relating to nitrogen reduction from my normal or recommended application rates is true and correct. I agree to refund all of the cost-share assistance if my practice is found to not meet specifications or if this information is found to be false or incorrect.

_____(Applicant's Signature)

_____ (date)

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC														
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024									
1S	FR-3	Increase the per acre incentive for FR-3 and make it similar to the SL-6 buffer payment of approximately \$80/ac/year. There is a significant difference when you try to put an FR-3 on cropland. This is an exceptionally beneficial practice that should get a boost to get more of it on the ground.	The TAC recommends the addition of a per acre buffer payment incentive to the FR-3 practice as follows: <u>C.3. Acreage planted into forested buffer is eligible for a buffer payment at the rate of \$80 per acre per year. The buffer payment rates shall be provided for a maximum of 15 acres:</u>	Yes	PY2023									
			<table><tr><th><u>Lifespan</u></th><th><u>Buffer payment rate</u></th><th><u>Buffer payment cap</u></th></tr><tr><td><u>15 years</u></td><td><u>\$80 per acre per year</u></td><td><u>\$18,000 per contract</u></td></tr><tr><td><u>10 years</u></td><td><u>\$80 per acre per year</u></td><td><u>\$12,000 per contract</u></td></tr></table>			<u>Lifespan</u>	<u>Buffer payment rate</u>	<u>Buffer payment cap</u>	<u>15 years</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>	<u>10 years</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>
			<u>Lifespan</u>			<u>Buffer payment rate</u>	<u>Buffer payment cap</u>							
<u>15 years</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>												
<u>10 years</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>												
<u>NOTE: The buffer payment cap is the maximum a participant can be paid per tract even when multiple practices with buffer payments are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).</u>														
3S	FR-3	Maintenance for FR-3 buffers is very expensive if contracted out, especially for the first 2-3 years until the trees get established. Most applicants don't have the time to properly maintain buffers (i.e. spray around tree tubes, control invasives, etc). This is causing some folks to not plant the trees in the excluded buffer. The buffer payment is there to assist with this, but it is nowhere near enough to cover true costs.	This suggestion was reviewed and discussed by the Subcommittee in conjunction with Matrix Item #9S as noted in the TAC Recommendations for Matrix Item #9S below.	Yes – with changes as shown in Matrix Item #9S	PY2023									

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC																															
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations				DCR Supports	PY2023/2024																							
4S	SL-6W WP-2W	Increase buffer payment cap to 15 acres. The intention of the payment cap was to cover the typical project within only a few exceeding it. However, roughly a quarter of our District's projects exceed the cap. With 15 acres, less than 1% of our projects would exceed the cap. This would much more closely correspond with the TAC's original intention.	The TAC recommends the following change to the buffer payment cap for the SL-6W: C.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 <u>15</u> acres. The rates including the buffer payment rates are:				Yes	PY2023																							
			<table><tr><th>Minimum fence setback (from the top of stream-bank)</th><th>Lifespan</th><th>Cost-share rate</th><th>Buffer payment rate</th><th>Buffer payment cap</th></tr><tr><td rowspan="2">50'</td><td>15 years</td><td>100%</td><td>\$80 per acre per year</td><td><u>\$18,000 per contract</u></td></tr><tr><td>10 years</td><td>95%</td><td>\$80 per acre per year</td><td><u>\$12,000 per contract</u></td></tr><tr><td rowspan="2">35'</td><td>15 years</td><td>90%</td><td>\$80 per acre per year</td><td><u>\$18,000 per contract</u></td></tr><tr><td>10 years</td><td>85%</td><td>\$80 per acre per year</td><td><u>\$12,000 per contract</u></td></tr></table>						Minimum fence setback (from the top of stream-bank)	Lifespan	Cost-share rate	Buffer payment rate	Buffer payment cap	50'	15 years	100%	\$80 per acre per year	<u>\$18,000 per contract</u>	10 years	95%	\$80 per acre per year	<u>\$12,000 per contract</u>	35'	15 years	90%	\$80 per acre per year	<u>\$18,000 per contract</u>	10 years	85%	\$80 per acre per year	<u>\$12,000 per contract</u>
			Minimum fence setback (from the top of stream-bank)	Lifespan	Cost-share rate	Buffer payment rate			Buffer payment cap																						
			50'	15 years	100%	\$80 per acre per year			<u>\$18,000 per contract</u>																						
				10 years	95%	\$80 per acre per year			<u>\$12,000 per contract</u>																						
			35'	15 years	90%	\$80 per acre per year			<u>\$18,000 per contract</u>																						
				10 years	85%	\$80 per acre per year			<u>\$12,000 per contract</u>																						

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC																				
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations		DCR Supports	PY2023/2024														
			<p>NOTE: The Bbuffer payment cap is the maximum a participant can be paid per tract even when multiple SL-6W and/or WP-2W practices <u>with buffer payments</u> are approved in a given program year (<u>for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1</u>).</p> <p>The TAC recommends the following change to the buffer payment cap for the WP-2W:</p> <p>C.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<u>15</u> acres. The rates including the buffer payment rates are:</p> <table><tr><th>Minimum fence setback (from the top of stream-bank)</th><th>Lifespan</th><th>Cost-share rate</th><th>Buffer payment rate</th><th>Buffer payment cap</th></tr><tr><td rowspan="2">35'</td><td>10 years</td><td>80%</td><td>\$80 per acre per year</td><td><u>\$12,000 per contract</u></td></tr><tr><td>5 years</td><td>75%</td><td>\$80 per acre per year</td><td><u>\$6,000 per contract</u></td></tr></table>		Minimum fence setback (from the top of stream-bank)	Lifespan	Cost-share rate	Buffer payment rate	Buffer payment cap	35'	10 years	80%	\$80 per acre per year	<u>\$12,000 per contract</u>	5 years	75%	\$80 per acre per year	<u>\$6,000 per contract</u>		
Minimum fence setback (from the top of stream-bank)	Lifespan	Cost-share rate	Buffer payment rate	Buffer payment cap																
35'	10 years	80%	\$80 per acre per year	<u>\$12,000 per contract</u>																
	5 years	75%	\$80 per acre per year	<u>\$6,000 per contract</u>																
			<p>NOTE: The Bbuffer payment cap is the maximum a participant can be</p>																	

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			paid per tract even when multiple SL-6W and/or WP-2W practices with buffer payments are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).		
9S		Create a Riparian Forest Buffer (RFB) Establishment practice. There are numerous options available for participants/landowners to plant forested riparian buffers. However, despite the knowledge that buffers need an intense level of care within the first few years of planting for successful establishment, there is typically little or no financial support to take care of newly planted buffers. We suggest a practice that pays for the necessary care (often called “maintenance”) of new buffers during their first 3-5 years. The practice could be annual, or long term, but payments should be structured so that the payment is only issued annually after the correct establishment activities have been performed. Riparian Forested Buffers (RFBs) are one of the most effective best management practices (BMPs) available for protection of local streams and water quality. But some potential participants will not install RFBs because of the cost and time necessary to maintain young buffers. In order to maximize enrollment of the RFB practice, the state should also offer a payment to care for these newly planted buffers. Rather than placing the responsibility on participants that have voluntarily planted buffers, let’s fully support this practice and help the	<p>This suggestion was reviewed and discussed by the Subcommittee in conjunction with Matrix Item #3S. One major concern is that FR-3 contracts are not being properly established and maintained. However, the FR-3 practice already allows for a one-time replanting of failed stands and <u>requires</u> that the participant maintain the stand for the 10-to-15 year lifespan of the practice, which is checked by SWCDs through Verification efforts. If buffer practices are found out of compliance, they either have to be replanted or paid back by the VACS participant, ensuring program compliance.</p> <p>Another key consideration discussed was that non-profit TAC partners desired a practice that could provide maintenance funding for volunteer plantings done through their organizations (and others) that could also be reported up to the Chesapeake Bay Model. In response, the TAC developed the new FR-3M Woodland Buffer Filter Area Maintenance practice which was passed after much debate within the Full TAC.</p> <p>DCR agrees with the principles behind this newly proposed specification in terms of providing a means for voluntarily planted buffers to be maintained and reported. However, it should <u>only</u> apply to voluntary contracts and not FR-3 contracts since the existing FR-3 specification already requires maintenance through the contract lifespan as a condition of receiving cost-share. Additionally, per acre rates for the FR-3 are proposed to greatly increase as seen in Matrix Item #1S and some of these funds may be utilized by the VACS FR-3 participant for maintenance purposes. Finally, to make the practice easier to implement</p>	Yes – with changes	PY2023

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
		Commonwealth reach its goals of establishing riparian forest buffers.	<p>in the field, DCR proposes a flat rate of \$350/acre instead of “100% not to exceed \$350/acre” which would cause variation in how this practice is implemented in the field.</p> <p>Therefore, DCR supports this practice’s inclusion in the PY2023 VACS Program Manual with appropriate clarifications to its Description and Purpose, Policies and Specifications and Rates. Instead of including the full language within this Matrix, the text with DCR changes can be found attached.</p>		
11S	FR-1	Consider adding language to the FR-1 specification clarifying grazing livestock is not allowed.	<p>The TAC recommends the following changes to the FR-1 specification:</p> <p>B.3. Gullied or eroded areas shall be stabilized with a temporary or suitably durable grass cover until trees are established. Pure stands of fescue are discouraged due to tree establishment competition. Plantings must be protected from grazing.</p> <p><u>B.4. Grazing of livestock is not permitted for the lifespan of the practice.</u></p>	Yes	PY2023
15S		We often hear that people don’t want to build fences along streams that flood often. They don’t want to risk having to rebuild fences. They also don’t want to give up production on floodplain soils. This practice would establish a permanent exclusion fence at the edge of the existing floodplain (away from likely flood damage; 100 foot minimum from stream), and require a permanent 35’ vegetated buffer of perennial vegetation along the stream. The space in between the permanent fence and the stream buffer could be used as hay ground or grazing (grazed using temporary fences along the stream buffer). Bay Model credit would still go to the 35’ buffer. The	<p>While this would primarily be a niche practice for farmers along wide river valleys, the TAC recommends a new practice called the SL-6F as outlined below:</p> <p style="text-align: center;"><u>Name of Practice: STREAM EXCLUSION IN FLOODPLAINS</u></p> <p style="text-align: center;"><u>DCR Specifications for No. SL-6F</u></p> <p><u>This document specifies terms and conditions for the Virginia Department of Conservation and Recreation’s Stream Exclusion with Grazing Land Management best management practice which are applicable to all contracts entered into with respect to that practice.</u></p>	Yes	PY2023

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
		payment rate could be established to take into consideration the SL-6W rates for cost-share, but no buffer payment would be offered for the hay ground in the floodplain, as it would still be in production.	<p><u>A. Description and Purpose</u></p> <p><u>This practices in intended for use in areas prone to flooding where the producer wishes to retain usage of a portion of the floodplain and also protect exclusion fencing from destruction by flooding. This is 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.</u></p> <p><u>Livestock watering systems and fencing improve water quality, control erosion and eliminate direct access to or a direct runoff input to all live streams or live water. 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.</u></p> <p><u>B. Policies and Specifications</u></p> <p><u>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.</u></p> <p><u>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</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>Practices Cost Share Program on the same fields.</u></p> <p><u>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 impacts, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.</u></p> <p><u>4. A buffer of either (i) at least 35 feet or (ii) at least 50 feet must be established and physically delineated with readily visible posts, rods, signs, or some other identifiable method. This demarcation must remain in place for the lifespan of the practice and be repaired if damaged by flooding. The buffer area must be maintained as perennial species for the practice lifespan and cannot be fertilized. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. If at any time during the practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).</u></p> <p><u>i. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.</u></p> <p><u>5. The area between the edge of the buffer and the exclusion fencing can be managed for hay and is not eligible to receive a buffer payment. Grazing (including flash grazing) of this area is not permitted. If at any time during the practice lifespan the participant is found to be grazing (including</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>flash grazing) their livestock in this area, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).</u></p> <p><u>i. This area is eligible to participate in other VACS Programs for hayland.</u></p> <p><u>6. The intent of this stream exclusion practice is for the fields adjacent to the exclusion fence (on the non-stream side) to remain in pasture for the length of the contract lifespan. If any part of this practice is damaged or destroyed during contract lifespan, the participant shall be subject to prorated repayment per the Practice Failures section of the VACS Guidelines. If the fields adjacent to the exclusion fence are converted to any other land use during contract lifespan, those fields will be ineligible for any VACS Program funding until the stream exclusion practice lifespan expires or the prorated repayment has been made.</u></p> <p><u>7. To protect stream banks, state cost-share and tax credit are authorized for:</u></p> <p><u>i. Fencing to restrict stream access in connection with newly developed watering facilities. The minimum fence setback from the stream must be either (i) at least 35 feet or (ii) at least 50 feet, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.</u></p> <p><u>a. Wetlands, intermittent springs, seeps, ponds connected to streams, sensitive karst features, and gullies adjacent to streams should be included in the buffer area.</u></p> <p><u>b. Isolated seeps, springs, wetlands, and ponds without direct connection to a stream may be</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>fenced as well, but shall not be used as the sole criteria for determining eligibility for the SL-6 practice.</u></p> <p><u>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.</u></p> <p><u>iii. Fence chargers used to electrify permanent or temporary fencing.</u></p> <p><u>8. To supply an alternative watering system to grazing livestock, state cost-share and tax credit are authorized for:</u></p> <p><u>ii. Watering developments including:</u></p> <p><u>a. Wells, including a permanently affixed pump and pumping accessories;</u></p> <p><u>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.</u></p> <p><u>II) Pumps and equipment associated with portable and permanent watering systems are allowed. 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</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<div>the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.</div> <div>b. <u>Connection to existing water supply;</u></div> <div>c. <u>Development of springs, seeps, or stream pickups, including fencing of the area, where needed, to protect the development from pollution by livestock;</u></div> <div>d. <u>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;</u></div> <div>e. <u>Pumps and equipment associated with permanent watering systems.</u></div> <div>ii. <u>Watering facilities including:</u><div>a. <u>Troughs;</u></div><div>b. <u>Tanks/storage facilities/cisterns;</u></div><div>c. <u>Hydrants.</u></div></div> <div>iii. <u>Pipelines to convey water to watering facilities.</u></div> <div>iv. <u>Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.</u></div> <div>v. <u>Portable water supply system components such as troughs, pipe, etc. that are:</u><div>a. <u>Commercially available or farmer constructed;</u></div><div>b. <u>Large enough to provide a timely and sufficient volume of water for the livestock</u></div></div>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p>to be contained in a specific area for which the system is designed;</p> <p>c. Capable of being maintained in a stable position and protected from any damage while the system or component is in use;</p> <p>d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.</p> <p><u>9. To establish pasture management through rotational grazing, state cost-share and tax credit are authorized for:</u></p> <p>i. <u>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.</u></p> <p>ii. <u>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.</u></p> <p><u>10. 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.</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>11. 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.</u></p> <p><u>12. 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.</u></p> <p><u>13. No state cost-share or tax credit is authorized under the practice for any installation that is:</u></p> <ul style="list-style-type: none">i. <u>PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.</u>ii. <u>To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.</u>iii. <u>For boundary fencing or water supply systems used to establish new pastures not currently in use.</u>iv. <u>For interior fencing and watering facilities to distribute grazing in fields not receiving exclusion fence (Applicant may apply for SL-</u>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p>7).</p> <p>v. <u>For the purpose of providing water for the farm or ranch headquarters.</u></p> <p><u>14. Soil loss rates must be computed for all applications for use in establishing priorities for receiving cost-share funds.</u></p> <p><u>15. All permits or approvals necessary are the responsibility of the applicant.</u></p> <p><u>16. 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.</u></p> <p><u>17. 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.</u></p> <p><u>C. Rates</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC																														
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations			DCR Supports	PY2023/2024																							
			<p>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 15 acres. The rates including the buffer payment rates are:</p> <table><tr><th><u>Minimum fence setback (from the top of streambank)</u></th><th><u>Life-span</u></th><th><u>Cost-share rate</u></th><th><u>Buffer payment rate</u></th><th><u>Buffer payment cap</u></th></tr><tr><td rowspan="2"><u>50'</u></td><td><u>15 years</u></td><td><u>100%</u></td><td><u>\$80 per acre per year</u></td><td><u>\$18,000 per contract</u></td></tr><tr><td><u>10 years</u></td><td><u>95%</u></td><td><u>\$80 per acre per year</u></td><td><u>\$12,000 per contract</u></td></tr><tr><td rowspan="2"><u>35'</u></td><td><u>15 years</u></td><td><u>90%</u></td><td><u>\$80 per acre per year</u></td><td><u>\$18,000 per contract</u></td></tr><tr><td><u>10 years</u></td><td><u>85%</u></td><td><u>\$80 per acre per year</u></td><td><u>\$12,000 per contract</u></td></tr></table>			<u>Minimum fence setback (from the top of streambank)</u>	<u>Life-span</u>	<u>Cost-share rate</u>	<u>Buffer payment rate</u>	<u>Buffer payment cap</u>	<u>50'</u>	<u>15 years</u>	<u>100%</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>	<u>10 years</u>	<u>95%</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>	<u>35'</u>	<u>15 years</u>	<u>90%</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>	<u>10 years</u>	<u>85%</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>		
<u>Minimum fence setback (from the top of streambank)</u>	<u>Life-span</u>	<u>Cost-share rate</u>	<u>Buffer payment rate</u>	<u>Buffer payment cap</u>																										
<u>50'</u>	<u>15 years</u>	<u>100%</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>																										
	<u>10 years</u>	<u>95%</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>																										
<u>35'</u>	<u>15 years</u>	<u>90%</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>																										
	<u>10 years</u>	<u>85%</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>																										

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>NOTE: The buffer payment cap is the maximum a participant can be paid per tract even when multiple practices are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).</u></p> <p><u>2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.</u></p> <p><u>3. 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.</u></p> <p><u>D. Technical Responsibility</u></p> <p><u>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.</u></p>		

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC							
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations			DCR Supports	PY2023/2024
16S	SL-7	In the SL-7 practice, remove the buffer requirement for already excluded streams/springs/ponds, etc. If the streams/springs/ponds, etc. are already excluded, they should be eligible for this practice. There was no buffer requirement in the old SL-9.	The TAC recommends the following changes to the SL-7 practice:			Yes	PY2023
			B.1. All fields that receive cost share under this practice must have had all livestock previously excluded with a minimum 10-foot setback or concurrently being excluded from all live streams or live water. Any field that is part of a rotational grazing system is eligible.				
			C. Rates				
			Minimum fence setback (from the top of streambank)	Lifespan	Cost-share rate		
			35'	15 years 10 years	80% 75%		
	<u><35'</u> 10'	15 years 10 years	55% 50%				

MATRIX OF DEFERRED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring
12S		Create and offer a Herbaceous Riparian Buffer practice. The existing FR-3 is specific to the planting of trees to create a forested buffer. Some landowners or potential participants are not willing to plant a forested buffer, but would plant a herbaceous buffer that would be more beneficial to water quality and wildlife if it were native herbaceous species. Similar to CREP practice CP-29, this practice would be available to VACS participants who may not be eligible for or interested in federal buffer planting programs. We would suggest the practice allow the planting of native warm season grasses, wildflowers and shrubs.	The WQ-1 Grass Filter Strip practice is already a part of the VACS Program Manual. Some research may be needed to discern if native, non-woody vegetation is much better for water quality than typical pasture growth.

MATRIX OF TABLED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
2S	FR-1 FR-3	Remove 100' from stream planting requirement from FR-3 and allow FR-3 to cover plantings up to 300' from the stream. Many buffer plantings go over 100' in width and farmers are penalized for creating larger buffers by having to switch to a FR-1 at 100' plus.	The Subcommittee discussed and decided that this issue is not a concern in most cases. Extending the FR-3 maximum distance beyond 100' would extend the FR-3 beyond the riparian area in much of the Commonwealth. Whole fields and/or uplands should be enrolled in the FR-1 practice.
5S	SL-7	Clarify the SL-7 specification in regards to the determination of where an SL-6 practice ends and where an SL-7 begins. Specifically, for fields where there is no water source and cattle are traveling back to the waterbody being excluded when in that pasture. There are varying interpretations as to whether or not placement of a water system in the pasture should be considered part of the SL- or should be considered an SL-7.	The difference between a SL-6N/W and a SL-7 has been thoroughly discussed in past years. The Subcommittee did not believe that any changes were warranted to the text. This is a recommended training item for annual VACS Updates sessions.
6S	CCI-FRB-1	Update the CCI-FRB-1 practice to allow for mowing in the established buffer. The current prohibition is in place because presumably the buffer has succeeded and is out of contract lifespan which would make it at least 10 years old and thus there is no need for mowing. However, there are a growing number of landowners who have planted voluntary riparian buffers through voluntary programs. These are not getting captured in the Bay Model and they are in need of funding support for maintenance. CCI-FRB-1 is the perfect solution to both of these issues, except that if they are in years 1-5 establishment, DOF recommends mowing and other maintenance in the buffer to ensure the viability of the planting project. If there was a way to update the CCI-FRB-1 to allow mowing if the project is between year 1-5 that would	There was much discussion of this item in Subcommittee, but no action taken. CCI practices are not "new practices", but rather are maintenance practices for BMPs already in place. It may be that resolving Matrix Items #3S and #9S will also satisfy this item. The Subcommittee tabled this item since the FR-3M specification was approved.

MATRIX OF TABLED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
		enable enrollment of voluntary buffer planting projects.	
7S	FR-3 SL-6W WP-2W	The SL-6W or WP-2W with their buffer payments can currently be coupled with FR-3 and its incentives for tree plantings in the buffer. The participant can receive cost-share for both, a buffer payment for exclusion, and a payment incentive for FR-3. Is this not double-dipping; please clarify in the Manual?	The stream exclusion/protection and forestry practices are paying for different, albeit overlapping, water quality benefits. The former practices pay for the initial riparian buffer, the latter pays for a land use change from herbaceous to forestry. FR-3 can increase the effectiveness of a buffer initially created by SL-6W or WP-2W. This is a recommended training item for future VACS Updates sessions. No changes to language are proposed.
8S	WP-2N WP-2W	The WP-2 practices are available with 5 and 10 year lifespans. There should be a 15 year WP-2 available for those who would agree to it. This would be consistent with the WP-2 option offered through CREP and DuPont.	The Subcommittee believes that this suggestion would require a complete reworking of the VACS cost-share rates for all stream fencing practices, which of course were most recently redone through the work of the CY18 TAC for inclusion in the Program Year 2020 VACS Manual. CCI-WP-2W offers a strong incentive for farmers to extend their lifespan an additional 5 years (i.e. thus 15 years in total, thereby achieving the goal mentioned in this suggestion).
10S	FR-3	Add a buffer payment to FR-3 if (and only if) the land is being taken out of production and not being paid by some other BMP such as SL-6.	The Subcommittee had much discussion regarding the difference between a “buffer payment” and FR-3’s existing “incentive payment”. This suggestion ultimately was accommodated with the TAC’s response to Matrix Item #1S which added a “buffer payment” to the FR-3.
13S		There is a restriction against having stream exclusion practices with different lifespans on the same field. Many applicants have preexisting stream exclusion on the same field that a new practice is being installed on. Without the option of CCI, the participant must maintain this existing fencing at their own cost throughout the lifespan. This could be a barrier to participation when there is more existing fence than new, especially with a 15-year lifespan. Once participant for example had three quarters of the stream fenced.	The Subcommittee discussed how CCI-SE-1 can be used on existing fence, as long as it is functional, and WP-2 or SL-6 can complete the exclusion. The Subcommittee recommends that this be a training item at upcoming VACS Update sessions.

MATRIX OF TABLED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
14S		Consider increasing the cost share rate for the WQ-11 Agricultural Sinkhole Protection practice to 100%. Since sinkholes serve as a direct conduit to ground and other surface water, the water quality benefit associated with this practice is substantial. Sinkhole clean-up and exclusion is as critical as stream exclusion, perhaps more so since these areas have historically served as dump sites and often contain metal and other harmful pollutants. Farmers often have little incentive to clean these areas as there is no production benefit to the operation. Increasing the cost share rate would provide adequate incentive to encourage farmers to clean these areas and eliminate these "point" sources of pollution that truly have no economic benefit to their operation.	The Subcommittee had great uncertainty about both the liability and the often unknown expenses associated with a sinkhole cleanout. It is extremely difficult to plan for 100% cost-share on a project with such variable costs from site to site. Additionally, the Subcommittee agreed that it was important for the participant to share in the costs of such a project.
18S	CCI-SE-1	Modify the CCI-SE-1 specification to remove the requirement to exclude all live streams or live water in a field. Consider modifying the specification to allow for a live stream or live water in a field to capture and incentivize the exclusion without requiring all live water to be treated. Shouldn't we want to capture any exclusion, even if it isn't everything in the field? This is particularly applicable and acceptable since participants are not receiving and additional incentives associated with the maintenance and continued use of other components like the CCI-SL-6 practices offer.	The VACS Manual is clear that the program is implemented on a field-by-field basis. Participants have many stream exclusion and protection options to choose from as the program is implemented on a field.
19S	WP-2N WP-2W	Include division fencing as an eligible component of the WP-2N/W.	Rotational grazing and pasture management are available in the SL-6N/W practices that each provide total stream exclusion. WP-2 is simply stream protection practice.

MATRIX OF TABLED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
20S	SL-6N SL-6W	Allow hardened/limited access points in the same field that has a watering trough to give farmers a water source even if power goes out. Having the limited access backup should result in more signup as the farmer would have an off stream water system to facilitate rotational grazing but they could also utilize the reliability of the stream. The water trough would be used most of the time except for during unexpected power outages.	“Consideration” should be given to power outages per SL-6 Policy B.10. To cost share on a hardened/limited access simply due to the potential failure of a trough(s) is not Least Cost/Technically Feasible and a waste of taxpayer dollars. The Subcommittee additionally recommended that this be a training item at upcoming VACS Update sessions.
21S		Make division fence eligible for CCI Payments.	CCI offers payments on the most critical components directly related to water quality benefit. A failed cross fence is not as concerning as a failed well or a failed exclusion fence that would result in cattle being let loose in the local stream.
22S		Allow for maintenance payments for existing spring troughs without full exclusion.	The existing SL-6B practice can be utilized in this scenario.

Name of Practice: AFFORESTATION OF CROP, HAY AND PASTURE LAND
DCR Specifications for No. FR-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's afforestation of crop, hay and pasture land best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will plant trees (hardwoods and/or conifers) on land currently used as crop, hay or pastureland in order to make a permanent land use conversion to forest.

The purpose of this practice is to offer cost-share for tree establishment, plus a per acre payment, that will change land use to one that will more effectively control the soil and nutrient loss from surface runoff, thus improving water quality. This practice will also provide forest areas for the benefit of wildlife.

B. Policies and Specifications

1. A Virginia Department of Forestry (DOF) forester will develop and /or approve a management plan (Form 7.8 or other plan), specifying the appropriate tree species before work is started.
2. Crop, hay and pastureland must have been in production for at least two out of the past five years. Forestland being replanted following timber harvest is not eligible.
3. Gullied or eroded areas shall be stabilized with a temporary or suitably durable grass cover until trees are established. Pure stands of fescue are discouraged due to tree establishment competition. ~~Plantings must be protected from grazing.~~

4. ~~Grazing of livestock in the planting area is not permitted for the lifespan of the practice.~~

4.5. In any subsequent program year within the lifespan of the practice, a single replanting due to mortality losses from circumstances outside the control of the participant may receive cost-share on only the eligible component costs necessary to replant the site for the same acreage. In order to be considered for cost-share on replanting, the participant must notify District staff within six months of a suspected failure. District staff will review conditions and determine eligibility for replanting in consultation with Department of Forestry. See Practice Failure section of Guidelines for further clarification. Other sources of funding may be used for replanting.

5.6. Cost-share payments may not be authorized for land enrolled under the FSA Conservation Reserve Enhancement Program (CREP).

6.7. Cost-share payments are not authorized for Christmas tree production.

~~7.8.~~ Filter efficiency may also be improved by the addition of low growing or ground cover vegetation. Herbaceous plantings/shrubs are encouraged to provide soil stabilization and to provide long-term benefits for wildlife. The Department of Forestry will recommend appropriate species.

~~8.9.~~ This practice is subject to the density determined by a DOF forester in accordance with DOF Form 7.8.

~~9.10.~~ 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. Control of noxious and invasive plants to ensure the survival of the stand is the responsibility of the participant. 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 rate is \$100 per acre for a 10-year lifespan, or \$150 per acre for a 15-year lifespan, and 75% of the eligible approved component costs.
2. Eligible component cost receiving 75% cost-share are as follows:
 - i. Site preparation – mechanical and/or chemical
 - ii. Labor
 - iii. Seedlings
 - iv. Seed for ground cover (Fescue is discouraged)
 - v. Herbaceous plantings/shrubs
 - vi. Protective fencing
3. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
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 2022⁴

Name of Practice: WOODLAND BUFFER FILTER AREA
DCR Specifications for No. FR-3

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Woodland Buffer Filter Area best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice creates a woodland buffer filter area to protect waterways or water bodies by reducing erosion, sedimentation, and the pollution of water from agricultural non-point sources.

The purpose of this practice is to offer cost-share for tree establishment plus a per acre payment that will change land use and establish a forest buffer to provide stream bank protection and to control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality. This practice will also provide forest areas for the benefit of wildlife and aquatic environments.

B. Policies and Specifications

1. A Virginia Department of Forestry (DOF) forester will develop and/or approve a management plan (Form 7.8 or other plan), specifying the appropriate tree species before work is started.
2. Crop, hay and pastureland must have been in production for at least two out of the past five years. Forestland being replanted following timber harvest is not eligible.
- ~~3.~~ Gullied or eroded areas shall be stabilized with a temporary or suitably durable grass cover until trees are established. Pure stands of fescue are discouraged due to tree establishment competition. ~~Plantings must be protected from grazing~~
- ~~3.4.~~ Grazing of livestock in the ~~bufferplanting area~~ is not permitted for the lifespan of the practice.
- ~~4.5.~~ In any subsequent program year within the practice lifespan, a single replanting due to mortality losses from circumstances outside the control of the participant may receive cost-share on only the eligible component costs necessary to replant the site for the same acreage. In order to be considered for cost-share on replanting, the participant must notify District staff within six months of a suspected failure. District staff will review conditions and determine eligibility for replanting in consultation with Department of Forestry. See Practice Failure section of Guidelines for further clarification. Other sources of funding may be used for replanting.
- ~~5.6.~~ Cost-share payments may not be authorized for land enrolled under the FSA Conservation Reserve Enhancement Program (CREP).

~~6.7.~~ Cost-share payments are not authorized for Christmas tree production.

~~7.8.~~ Filter efficiency may also be improved by the addition of low growing or ground cover vegetation. Herbaceous plantings/shrubs are encouraged to provide soil stabilization and provide long-term benefits for wildlife. Department of Forestry will recommend appropriate species.

~~8.9.~~ This practice is subject to the density determined by a DOF forester in accordance with DOF Form 7.8.

~~9.10.~~ The width of the wooded buffer will be a minimum of 35 feet from the edge of the stream bank. The entire flood plain is eligible for planting, not to exceed 100 feet.

~~10.11.~~ All practice components implemented must be maintained for either 10 or 15 years, depending on the lifespan for which the participant signs up, as outlined in C.1. 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. Control of noxious and invasive plants to ensure the survival of the stand is the responsibility of the participant. 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 rate is 95% of the eligible approved component costs plus an incentive:
 - i. For conifer buffers, \$100.00 per acre for a 10 year lifespan, OR \$150 per acre for a 15 year lifespan.
 - ii. For hardwood buffers, \$100 per acre for a 10 year lifespan, OR \$250 per acre for a 15 year lifespan.
2. Eligible component costs receiving 95% cost-share are as follows:
 - i. Site preparation – mechanical and/or chemical
 - ii. Labor
 - iii. Seedlings
 - iv. Seed for ground cover (Fescue is discouraged)
 - v. Herbaceous plantings/shrubs
 - vi. Protective Fencing
3. Acreage planted into forested buffer is eligible for a buffer payment at the rate of \$80 per acre per year. The buffer payment rates shall be provided for a maximum of 15 acres:

<u>Lifespan</u>	<u>Buffer payment rate</u>	<u>Buffer payment cap</u>
<u>15 years</u>	<u>\$80 per acre per year</u>	<u>\$18,000 per contract</u>
<u>10 years</u>	<u>\$80 per acre per year</u>	<u>\$12,000 per contract</u>

NOTE: The buffer payment cap is the maximum a participant can be paid per tract even when multiple practices with buffer payments are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1). The buffer payment cap is set at 15 acres. Acreage receiving a buffer payment through WP-2W or SL-6W is not eligible for an additional buffer payment through the FR-3 practice.

3.4. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

4.5. 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 2024

Name of Practice: WOODLAND BUFFER FILTER AREA MAINTENANCE
DCR Specifications for No. FR-3M

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Woodland Buffer Filter Area Maintenance best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice ~~supports the establishment of a woodland buffer area to protect waterways or water bodies. The practice encourages~~ the successful establishment of riparian forested buffers ~~by providing for the management of newly planted buffers~~ within their first three years by offering-

~~The purpose of this practice is to offer~~ cost-share for management activities that help ensure tree survival ~~of newly planted buffer areas~~. This includes the replacement of dead saplings/planted trees when necessary. Research and experience show that forest buffers that receive proper care and management during the first few years after planting have a higher success rate for establishment and land conversion to wooded habitat.

Buffer trees will benefit from reduced competition with surrounding vegetation, protection from damage, and removal and control of invasive species. Proper maintenance of riparian forest buffers will accelerate the ability of the buffer to protect water quality by filtering and removing pollutants like sediment and nutrients, as well as promote ecosystem services of the buffer and stream itself.

B. Policies and Specifications

1. This practice is intended to provide maintenance funding for riparian buffer plantings established either voluntarily, through private funding or through partnering with non-profit organizations. However, this practice may not be approved for maintenance of riparian buffers that are under a state or federal contract requiring buffer maintenance through the best management practice remains- (e.g. VACS, EQIP, CSP, CREP). For example, state FR-3 contracts require the riparian buffer to be maintained by the participant for a 10 or 15 year lifespan and offers additional financial assistance for replanting when necessary. Since maintenance is required within the FR-3, participants are not allowed to enroll in the FR-3M.
2. Participants that enroll in the FR-3M practice agree that their riparian forest buffer will also be enrolled in the VFR-3 practice if the buffer has not been reported to the Chesapeake Bay Program through another means.

~~4.3.~~ A Virginia Department of Forestry (DOF) forester will complete DOF Form 84 to review the state of the existing buffer and provide management recommendations.~~develop and/or approve a buffer management plan.~~

~~2.4.~~ Eligible maintenance activities include:

- i. Mowing between trees~~;~~
- ii. Herbicide treatment of area around trees~~;~~
- iii. Trimming/weeding around trees~~;~~
- iv. Monitoring and removal of invasive plants~~;~~
- v. Checking and maintaining tree shelters and stakes, includes survival checks~~;~~
- vi. Removing bird nets from tree tubes~~;~~
- vii. Replanting to replace dead trees~~;~~
- viii. Establishment of ground cover (only if not required/paid for during tree planting)~~;~~
- ix. Additional activities included in an approved plan.

~~3.5.~~ The riparian forest buffer being managed through this practice must have been planted within the current program year or previous three calendar years.

~~4.6.~~ Gullied or eroded areas shall be stabilized with a temporary or suitably durable ground cover until trees are established if not required in the planting plan. Pure stands of fescue are discouraged due to tree establishment competition.

~~5.7.~~ Grazing of livestock in the buffer area is not permitted.

~~6.~~ ~~Buffers receiving payment for replanting through the FR-3 practice failure option (FR-3, B. 5.) are not eligible for reimbursement of tree replanting costs during the same year as the practice failure replanting. All other eligible buffer maintenance activities may be reimbursed within the same program year.~~

~~7.~~ ~~Cost share payments may not be authorized for land enrolled under the FSA Conservation Reserve Enhancement Program (CREP), or any other program that also pays for riparian buffer maintenance.~~

8. Cost-share payments are not authorized for commercial tree or tree product production. Forestland being replanted following timber harvest is also not eligible.

9. This practice is intended to maintain trees at the density specified in the buffer management plan.

10. The eligible buffer area will be limited to the area specified in the ~~buffer management plan~~DOF Form 84.

11. This is an annual practice that may only be enrolled on the same buffer three times (for a maximum of three years of maintenance after the initial tree planting).

~~11. Participants that enroll for the FR-3M agree that if the buffer has not been reported to the Chesapeake Bay Program through another means, that their riparian forest buffer will be enrolled in the VFR-3 practice.~~

C. Rate(s)

1. The state cost-share rate is ~~100% not to exceed~~ \$350/acre toward ~~reimbursement of the eligible approved maintenance activities within as documented within the DOF Form 84 buffer management plan. Any additional management activities requested for reimbursement must be pre-approved by the District.~~ Reimbursement will be issued only after ~~the buffer is assessed by DOF using DOF Form 84, and the District the Virginia Department of Forestry confirms-certifies~~ that the necessary management ~~was activities were~~ conducted ~~during the contract years as prescribed.~~

2. Participants may conduct management activities themselves rather than contract for management services. ~~Reimbursement rates will follow District approved labor and equipment rates.~~

3. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

4. If a participant receives cost-share, only the participant's eligible out-of-pocket share of the project cost ~~is~~will be 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.

Created April 2022

Name of Practice: STREAM EXCLUSION IN FLOODPLAINS
DCR Specifications for No. SL-6F

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Stream Exclusion with Grazing Land Management best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice is intended for use in areas prone to flooding where the producer wishes to retain usage of a portion of the floodplain and also protect exclusion fencing from destruction by flooding. This is 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.

Livestock watering systems and fencing improve water quality, control erosion and eliminate direct access to or a direct runoff input to all live streams or live water. **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 impacts, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

4. A buffer of either (i) at least 35 feet or (ii) at least 50 feet must be established and physically delineated with readily visible posts, rods, signs, or some other identifiable method. This demarcation must remain in place for the lifespan of the practice and be repaired if damaged by flooding. The buffer area must be maintained as perennial species for the practice lifespan and cannot be fertilized. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. If at any time during the practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
 - i. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.
5. The area between the edge of the buffer and the exclusion fencing can be managed for hay and is not eligible to receive a buffer payment. Grazing (including flash grazing) of this area is not permitted. If at any time during the practice lifespan the participant is found to be grazing (including flash grazing) their livestock in this area, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
 - i. This area is eligible to participate in other VACS Programs for hayland.
6. The intent of this stream exclusion practice is for the fields adjacent to the exclusion fence (on the non-stream side) to remain in pasture for the length of the contract lifespan. If any part of this practice is damaged or destroyed during contract lifespan, the participant shall be subject to prorated repayment per the Practice Failures section of the VACS Guidelines. If the fields adjacent to the exclusion fence are converted to any other land use during contract lifespan, those fields will be ineligible for any VACS Program funding until the stream exclusion practice lifespan expires or the prorated repayment has been made.
7. 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 minimum fence setback from the stream must be either (i) at least 35 feet or (ii) at least 50 feet, 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.

8. 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 are allowed. 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;
 - d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.
9. 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.
10. 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.
11. 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.
12. 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.
13. No state cost-share or 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.
14. Soil loss rates must be computed for all applications for use in establishing priorities for receiving cost-share funds.
15. All permits or approvals necessary are the responsibility of the applicant.

16. 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.
17. 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 15 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	\$18,000 per contract
	10 years	95%	\$80 per acre per year	\$12,000 per contract
35'	15 years	90%	\$80 per acre per year	\$18,000 per contract
	10 years	85%	\$80 per acre per year	\$12,000 per contract

NOTE: The buffer payment cap is the maximum a participant can be paid per tract even when multiple practices are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).

2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
3. 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.

Created April 2022

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 which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This is 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.

Livestock watering systems and fencing improve water quality control erosion and eliminate direct access to or a direct runoff input to all live streams or live water. **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 impacts, 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. If at any time during the practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
 - i. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.
5. The intent of this stream exclusion practice is for the fields adjacent to the buffer to remain in pasture for the length of the contract lifespan. If any part of this practice is damaged or destroyed during contract lifespan, the participant shall be subject to prorated repayment per the Practice Failures section of the VACS Guidelines. If the fields adjacent to the buffer are converted to any other land use during contract lifespan, those fields will be ineligible for any VACS Program funding until the stream exclusion practice lifespan expires or the prorated repayment has been made.
6. 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 minimum fence setback from the stream must be either (i) at least 35 feet or (ii) at least 50 feet, 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.
7. 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 are allowed. 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;
 - d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.
- 8. 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.

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 or 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 15 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	\$18,000 per contract
	10 years	95%	\$80 per acre per year	\$12,000 per contract
35'	15 years	90%	\$80 per acre per year	\$18,000 per contract
	10 years	85%	\$80 per acre per year	\$12,000 per contract

NOTE: The ~~B~~buffer payment cap is the maximum a participant can be paid per tract even when multiple ~~SL-6W and/or WP-2W~~ practices with buffer payments are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).

2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
3. 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.

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 which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides a management system to 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 non-point 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 10 foot setback~~ from all live streams or live water. 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. Grazing (including flash grazing) and haying are not allowed in the protected riparian area 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, 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;
 - 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. When funded concurrently with an SL-6N/W or a CREP practice, the SL-7 must be maintained for a matching lifespan (i.e. 10 or 15 years). 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 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 shown in the table below:

Minimum fence setback (from the top of streambank)	Lifespan	Cost-share rate
35'	15 years	80%
	10 years	75%
<u><35'</u> 40'	15 years	55%
	10 years	50%

2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual. 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.
3. Exclusion fencing must be in place prior to issuing cost-share and/or tax credit for SL-7.

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 2022⁺

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 which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides stream protection by fencing along all live streams or live water 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. Providing 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, as a single eligible component, only if all of the following apply:
 - a. The minimum fence setback from the stream must be at least 35 feet, 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. If at any time during practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
 - i. When both sides of the stream are under the same ownership, livestock must be excluded from both sides of the stream.
3. The intent of this stream protection practice is for the fields adjacent to the buffer to remain in pasture for the length of the contract lifespan. If any part of this practice is damaged or destroyed during contract lifespan, the participant shall be subject to pro-rated repayment per the Practice Failures section of the VACS Guidelines. If the fields adjacent to the buffer are converted to any other use during contract lifespan, those fields will be ineligible for any VACS Program funding until the stream protection practice lifespan expires or the pro-rated repayment has been made.
4. Cost-share and tax credit are not authorized for:
 - i. Boundary fencing 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.
5. 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.
6. Wildlife, environmental, and livestock shade considerations must be given when designing the practice.
7. This is a one-time incentive payment not eligible for reapplication on the same site. Lifespan requirements can be waived if damaged by flooding.
8. Soil loss rates must be computed for all practices for use in establishing priority considerations.
9. 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.

10. All practice components implemented must be maintained for a minimum of either five 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 **15 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	\$12,000 per contract
	5 years	75%	\$80 per acre per year	\$6,000 per contract

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 **with buffer payments** are approved in a given program year (for example, but not limited to, FR-3, SL-6F, SL-6W, WP-2W and WQ-1).

2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.
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.

MATRIX OF ADVANCED PROGRAMMATIC RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
1P		Per VACS Guidelines in the Cost-Share Rates section, currently Districts can only partner with non-profit organizations "to fund mutually high priority practices up to a maximum cost-share rate as listed in the VACS BMP specifications" (unless they have a formal agreement approved by the SWCB). If a non-profit organization wants to bring cost-share up to 100% or more, that is currently not allowed without a formal agreement to go outside the VACS Guidelines as approved by the Virginia Soil and Water Conservation Board. Moving forward, allow Districts to pay up to the maximum cost-share rate, as usual, and then non-profits partners can add additional resources as desired (up to 100% total cost-share or more).	<p>The TAC recommends advancing this suggestion with the following language added to the VACS Guidelines:</p> <p><i><u>Districts and, federal agencies, or other conservation organizations may choose to combine resources to fund mutually high priority practices up to a maximum state and federal cost-share rate as listed in the VACS BMP specifications. Other sources of funding, including funding from local sources, and private sources, and non-profit conservation organizations, may provide additional reimbursement opportunities in addition to the rates listed in the VACS BMP specifications, up to 100% cost-share or greater. Experience has shown that a contribution towards implementing the practice by the participant encourages the long-term maintenance of the practice. Districts are encouraged to meet with local conservation workgroups to discuss funding options, priorities, and program administration. In addition, Districts may use locally-approved current commercial rates (e.g. seed, lime, fertilizer, machinery, and labor), District approved unit cost, or statewide average costs to establish estimates for eligible practice components.</u></i></p>	Yes	PY2023
2P		The Practice Failures section of the VACS Manual currently offers additional cost-share (in exchange for a reset lifespan) for any participant impacted by "an irreversible Extreme Act of Nature such as a flood, drought, fire, hurricane or tornado in order to assist with the costs of the necessary repairs to ensure the practice is fully functioning". Failures due to maintenance issues are rightly not eligible because it is the participant's responsibility to maintain the practice for the length of the contract lifespan. However, occasionally a practice fails due to no	<p>The TAC recommends advancing this suggestion with the following language added to the VACS Guidelines:</p> <p><i><u>Practice Failures Due to Unknown Causes</u></i></p> <p><i><u>Very rarely, a conservation practice fails during lifespan in the absence of an Extreme Act of Nature (EAN) or lack of maintenance. In such situations, the producer may be eligible for additional cost-share in order to assist with the costs of the necessary repairs to ensure the practice is fully functioning. The practice must have been certified and the failure</u></i></p>	Yes	PY2023

MATRIX OF ADVANCED PROGRAMMATIC RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
		apparent lack of maintenance or Extreme Act of Nature. Clearly state in the Manual that participants in this situation may be eligible for additional cost-share funds, utilizing the existing process, as the case-by-case judgment of the District Board and DCR.	<p><u>must have occurred during the lifespan requirement of the practice in order for the producer to be eligible for funding.</u></p> <p><u>If a participant receives cost-share funding for a practice failure due to unknown causes, the participant will (i) receive the cost-share rate established in the current equivalent VACS practice specification and (ii) will be responsible for a newly reset lifespan requirement for that practice based upon the current equivalent VACS practice specification. Previously established buffers shall not receive a buffer payment. District staff shall inform the participant that there is no guarantee of funding.</u></p> <p><u>If the participant requests cost-share funding in response to such circumstances, District staff shall proceed as follows:</u></p> <ol style="list-style-type: none"> <u>1. If the practice requires Engineering Job Approval Authority (EJAA), the District staff person with the appropriate EJAA shall schedule a joint site visit with DCR Engineering Services staff to inspect the practice and ensure that the practice failure is eligible. If so, District staff shall work with the participant and DCR Engineering Services to plan an acceptable least cost, technically feasible solution for repairing the practice;</u> <u>2. The District Board must make the ultimate determination as to whether or not the additional funding is warranted or if the failure was due to lack of maintenance. A formal vote by the local District Board is required as to whether or not the District should move the request forward to DCR;</u> <u>3. If the District Board votes to move the request forward, District staff shall contact the applicable CDC or DCR Data Services staff to set the original instance to Unapproved in the AgBMP Tracking Module, develop a map of the project, including the</u> 		

MATRIX OF ADVANCED PROGRAMMATIC RECOMMENDATIONS FOR CALENDAR YEAR 2021 (CY21) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	PY2023/2024
			<p><u>solution to the practice failure, digitize the additional or changed components of the practice and run Resource Reviews in the AgBMP Tracking Module as applicable per the VACS Manual, and formulate the new Estimated Instance Cost, new Estimated Cost-Share Payment and Tax Credit for the project repair;</u></p> <p>4. <u>District staff shall notify the applicable Conservation District Coordinator (CDC) that they have a previous Program Year BMP instance that has been determined to have failed due to an EAN during the lifespan of the practice. District staff should provide project details to their CDC as to why additional cost-share is warranted, including a Narrative, the Map of Practices, Estimated Instance Cost, Estimated Cost-Share Payment and Tax Credit.</u></p> <p><u>The CDC will review and, when all necessary information is received, route the request to the Agricultural Incentives Program Manager for review, consultation with DCR Engineering Services, and approval if warranted. If approved by the Agricultural Incentives Program Manager, the District shall proceed utilizing the steps recorded in the VACS Guidelines section titled: “Process for Requesting Cost-Share Funding for an EAN”.</u></p>		

MATRIX OF DEFERRED PROGRAMMATIC RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring
5P		Consider aquaculture practice for oysters.	<p>This issued was deferred for further discussion next TAC season. There was concern that oyster/aquaculture practices are not an expertise of DCR and may be more efficiently handled by other agencies assigned to this type of work in the Chesapeake Bay WIP (e.g. VMRC, VDACS).</p>
			<p>While there are available Model credits for oyster/aquaculture, at the time of the meeting it remained unclear what and how much credit DCR would garner through development of such practices. Members disagreed over whether the item was worth pursuing, with some believing every available reduction should be pursued and others believing that such practices would not apply to many agricultural producers and may exceed the VACS Program purview. VACS eligibility requirements would likely have to be revised to allow for this.</p>
			<p>DCR made clear that if the TAC pursued oyster practices, it would be a multi-year process at least. No new oyster practices would be rolled out before Program Year 2024 or 2025 due to the amount of work that would have to go into this, if the TAC and Board even approved it at some point in the future.</p>
			<p>Note: Since these TAC meetings, DCR has discovered that the Bay Model BMPs only includes creditable oyster BMPs for production, requiring the harvest of oysters with a reduction credit calculated according to the size, type (i.e. diploid v. triploid) and number of oysters removed. The Model estimates N and P assimilated into the shells and tissues of oysters and hence the harvesting requirement. There are some restoration-type BMPs in the planning phase at the Chesapeake Bay Program, but as to when these will become more widely available for credit, DCR does not know. Even once that point is reached, though, DCR would have to discuss if it has a role to play as, more likely, VMRC and VIMS would be lead state agencies or entities on this issue. Finally, it is worth noting that there are currently no available BMPs for oyster restoration work, nor are there any BMPs for non-oyster aquaculture i.e. fish or other shellfish.</p>

MATRIX OF TABLED PROGRAMMATIC RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
3P		Per recent instruction from the Virginia Soil and Water Conservation Board, include a statement in the Manual encouraging Soil and Water Conservation Districts to prioritize the conservation, establishment or protection of wetlands and riparian buffers while developing Secondary Considerations, particularly in Chesapeake Bay Preservation Area localities where conservation issues may exist on agricultural lands.	<p>Following general discussion, this suggestion was tabled in Subcommittee without opposition.</p> <p>Following the Board’s instruction, DCR had notified all 47 SWCDs that the Board encouraged them to adopt similar language to that which was proposed for the TAC’s consideration. In the end, fifteen (i.e. roughly a third) of the SWCDs included language prioritizing riparian buffers and/or wetlands.</p> <p>Currently the VACS Program already prioritizes riparian buffer and stream fencing practices through Priority Considerations and local SWCDs can choose to prioritize them further on the local level through Secondary Considerations.</p> <p>It was also noted that there are currently no wetland cost-share practices to prioritize through Secondary Considerations. The current VACS wetland practices are tax credit only which can be signed up without going through the formal ranking process of Primary and Secondary Considerations.</p>
4P		For Cover Crop practices ONLY, consider the allowance of a new status in Tracking called "Approved Pending Funding". It is common practice in the cropland Districts to take applications, monitor unfunded cover crop acres (e.g. for planting and 60% cover requirements) and, should funding come available later in the year, to approve these practices after they have been initiated. Such a change in Tracking would allow District Boards to approve these applications in an “Approved Pending Funding” status. District staff would still check the fields to see if they were in compliance with the spec and if funds came available at a later date, the District staff could switch the projects to “Approved” status in Tracking and send an Approval letter.	<p>Following general discussion, this suggestion was tabled by the Subcommittee. There was concern that the development of an “Approved Pending Funding” status in the Conservation Application Suite would be misleading and would cause confusion, as a practice under this status would not <i>actually</i> yet be approved by the District until funding became available and the contract was formally voted on by the local District Board, thereby putting it into “Approved” status.</p> <p>In addition to the terminology, there was also a concern that the proposed process would be too burdensome to integrate into CAS and for the Districts to deal with on a local level. Current status choices in CAS already serve this function and Districts already can manage unfunded applications effectively.</p>

