

Recommended revisions to the VACS BMP Manual for FY2025 – Individual BMPs

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

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
1A		Create CCI practices that provide incentives for the continued maintenance and use of animal waste practices. <i>CCI-WP-4 and CCI-WP-4C created in 2021; subcommittee deferred in 2022 with the intention to prioritize in the next TAC cycle.</i>	Revise CCI WP-4 to include Seasonal Feeding Facilities (WP-4SF), Confined Livestock Operations (WP-4LC), and Animal Waste Control Facilities (WP-4) or equivalent facilities. Revise CCI-WP-4C to add \$250 per bin for swine. CCI-WP-4: <i>A. Description and Purpose</i> <i>This practice prevents animal waste from entering watercourses and environmentally sensitive areas.</i> <i>The purpose of this practice is to provide an incentive payment for the maintenance of existing Animal Waste Control Facilities, to include Seasonal Feeding Facilities (WP-4SF), Confined Livestock Operations (WP-4LC), and Animal Waste Control Facilities (WP-4) or equivalent facilities. Feeding pads that do not provide storage are not eligible.</i> <i>C. Rate(s)</i> <i>The VACS payment 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 an additional payment per animal unit (AU) as outlined in the table below, 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.</i> <i>For WP-4B and WP-4LL practices, the producer should receive an additional payment per component for the loafing lots</i>	Yes	PY2025

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MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
			<u>of the manure is collected in the feed lane, therefore, the payment rate per animal unit would be calculated by multiplying \$25x33%=\$8.25/AU.</u> CCI-WP-4C: A. Description and Purpose <i>This practice prevents waste from mortality composting facilities from entering watercourses and environmental sensitive areas.</i> <i>The purpose of this practice is to provide an incentive payment for the maintenance of existing mortality Composter Facilities.</i> <i>This practice only applies to poultry <u>and swine</u> mortality composting facilities.</i> C. Rates <i>The VACS payment 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 <u>applicable mortality</u> composting bin sizing worksheet based on the current operation.</i>		
2A	CCI-WP-4	Add NMP requirement to CCI-WP-4 specification.	Add NMP requirement to the CCI-WP-4 suite of practices. Update NMP requirement in WP-4 suite to match. <i>In order to be eligible for cost-share or tax credit [for WP-4 suite], producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage</i>	DCR supports this recommendation with the edits shown in red. Alternatively,	PY2025

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
			<i>under the producer's control</i> receiving manure from the associated storage structure. 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 (4VAC50-85-130G).	DCR would support inclusion of the current NMP requirement (found in the WP-4 suite) in the CCI-WP-4 suite.	
3A	WP-4SF	Allow for unrolling hay for WP-4SF. Language could state: Unrolling hay in pastures is permitted outside the feeding facility for the lifespan of the practice. Concentrated feeding of any sort is <u>not</u> permitted outside the feeding facility (including but not limited to: hay rings, feed carts, troughs, bunks, etc.) Justification: there are numerous soil health benefits to unrolling hay in pastures, which is directly correlated to water quality due to increased nutrient filtering and distribution of nutrients. Reducing the discrepancies with NRCS practices which allow for unrolling hay. Positive animal welfare perspective due to allowing calves the ability to bed down in the hay during winter storms. Our District has had several producers not sign up for WP-4SF practices due to this limitation.	Add language regarding unrolling hay in pastures to the WP-4SF: <u>B. 2. v. Unrolling hay in pastures is permitted outside the feeding facility for the lifespan of the practice. Concentrated feeding of any sort is not permitted outside the feeding facility (including but not limited to: hay rings, feed carts, troughs, bunks, etc.).</u>	Yes	PY2025
4A		In WP-4 suite spec, allow for sizing manure storage for any on farm generated manure.	Add language to WP-4 and WP-4SF:	Yes	PY2025

MATRIX OF ADVANCED ANIMAL WASTE RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
		4. Cost-share and tax credit is not authorized for: i. Storage of manure generated outside of this facility. Language could say: Cost-share is eligible for sizing facility to treat/store any on farm generated manure from separate herds or livestock. Justification: It is least cost technically feasible to build one structure that treats all manure that could lead to other resource concerns on the farm.	B. 3. <i>Cost-share and tax credit is authorized:</i> i. <u>For animal waste generated from any qualifying group of animals on the farm where the facility is to be located.</u>		
6A	CCI-WP4	Evaluate CCI-WP4 payment rate as applicable to swine operations. They are more similar to poultry than other livestock in receiving multiple groups per year.	Update CCI-WP-4 rate for swine to be consistent with poultry at \$1.50 per animal unit. <i>Refer to CCI-WP-4 table included under 1A</i>	Yes	PY2025

Changes to cost-share practice specifications will be applied to corresponding voluntary specifications.

MATRIX OF TABLED ANIMAL WASTE RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
5A	WQ-12	Suggest adding a limit for eligibility for a WQ-12 regarding the water quality concern/proximity to water features.	Subcommittee members stated the intent of the specification was to address any roof runoff that comes into contact with manure, regardless of water features. (DCR abstained from vote)

Continuing Conservation Initiative

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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, to include Seasonal Feeding Facilities (WP-4SF), Confined Livestock Operations (WP-4LC), and Animals Waste Control Facilities (WP-4) or equivalent facilities. Feeding pads that do not provide storage are not eligible.

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. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage under the producer's control receiving manure from the associated storage structure. 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 (4VAC50-85-130G).

9.10. This practice is eligible for re-enrollment.

10.11. 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 VACS payment rate is a single payment of a base rate of \$5000 per Animal Waste Control Facility, as well as an additional payment per animal unit (AU) as outlined in the table below~~\$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.

For WP-4B and WP-4LL practices, the producer should receive an additional payment per component for the loafing lots associated with the structure equal to that of the CCI-SL-6W/N, based on the buffer width. No components should be paid for twice between different CCI practices. If there is no exclusion associated with the loafing lots, participants are eligible to receive the watering system and trough payments equal to that of the CCI-SL-6 practices.

<u>Type of Practice</u>	<u>Rate per Animal Unit (AU)*</u>
<u>WP-4 Animal Waste Control Facilities - Poultry/Swine</u>	<u>\$1.50**</u>
<u>WP-4 Animal Waste Control Facilities - Others</u>	<u>\$25.00**</u>
<u>WP-4SF Seasonal Feeding Facility with Attached Manure Storage</u>	<u>\$10.00</u>
<u>WP-4LL Loafing Lot Management System with Manure Management (Excluding Bovine Dairy)</u>	<u>\$20.00</u>
<u>WP-4B Dairy Loafing Lot Management System</u>	<u>\$20.00</u>
<u>WP-4LC Animal Waste Control Facility for Confined Livestock Operations</u>	<u>\$25.00</u>

* These rates are based on standard confinement percentages.

** For standalone manure storage structures (WP-4) when 100% of the manure generated by the group of animals is not captured and stored in the associated structure, the rate per animal unit should be multiplied by the percentage of the manure being collected and treated by this structure. For example, if this is for a feed lane, 33% of the manure is collected in the feed lane, therefore, you would calculate the payment rate per animal unit by multiplying $\$25 \times 33\% = \$8.25/\text{AU}$.

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
VACS Program Specifications for No. CCI-WP-4C

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 and swine 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. In order to be eligible for cost-share, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage under the producer's control receiving manure from the associated storage structure. 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 (4VAC50-85-130G).

7.8. 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.

8.9. This practice is eligible for re-enrollment.

9.10. 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 VACS payment 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 applicable mortality~~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: ANIMAL WASTE CONTROL FACILITIES
VACS Program Specifications for No. WP-4

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 manage liquid and/or solid waste from existing feeding facilities, hardened pads, or other areas where livestock and poultry are concentrated and from which manure can be collected. This practice is designed to provide facilities for the storage and handling of livestock and poultry waste and the control of surface runoff to permit the recycling of animal waste onto the land in a way that will abate pollution that would otherwise result from existing livestock or poultry operations.

Its purpose is to improve water quality by storing and spreading waste at the proper time, rate, location, and/or to control erosion and nutrient input caused by feeding operations located adjacent to riparian areas or other environmentally sensitive features.

B. Policies and Specifications

1. Eligibility: Cost-share and tax credit are limited to solving the pollution problems where the livestock or poultry 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 or poultry waste.
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 applications for animal waste control facilities, including poultry operations, must have a "WP-4 Risk Assessment for Water Quality Impairment from Animal Concentrated Areas" completed and must receive a minimum score of 120 in order to be eligible. Furthermore, all associated livestock must be excluded from all streams in the tract before cost-share or tax credit is provided.

- iii. The applicant is required to sign a Dry Manure Storage Structure Agreement DCR199-86 (04/19) 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 the DCR Agricultural BMP Engineer.

3. Cost-share and tax credit is authorized:

i. For animal waste generated from any qualifying group of animals on the farm where the facility is to be located.

ii. For animal waste storage facilities, such as dry stacking storage, aerobic or anaerobic lagoons, liquid manure tanks, solid/liquid separation, holding ponds, collection basins, settling basins, and similar facilities, as well as diversions, channels, waterways, designed filter strips, outlet structures piping, land shaping, and similar measures needed as part of a system on the farm to manage animal wastes as outlined below:

- a. Permanently installed equipment needed as an integral part of the system.
- b. Solid/liquid separation is eligible when the manure storage is not adequate and this is the least cost, technically feasible alternative to a new liquid pit.
- c. Vegetative cover (including mulching needed to protect the facility).
- d. Leveling and filling to permit the installation of an effective system.

iii. Only if the facilities will contribute significantly to improving the soil or water quality by providing protected storage for on-site generated waste.

iv. For the waste storage facility as a part of the relocated livestock or poultry operation, if the original facility is contributing significantly to a water quality problem.

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

- a. A DCR Agricultural BMP Engineer determines that the component stands alone as a measure that will significantly improve water quality and
- b. Only where a no-discharge permit for a waste storage facility is not required.

vi. For wastewater storage facilities as a stand-alone component with a minimum storage of 120 days.

vii. For a waste storage system to store manure produced for a consecutive period up to six months based on existing need. All components of a waste storage system (regardless of funding source) must be designed to match the amount of manure storage capacity required.

Exceptions to the six month storage criteria are:

- a. Liquid storage which may provide storage for manure produced during a consecutive seven month period based on existing need.
- b. Poultry layer/breeder operations may provide storage for manure produced for a consecutive period up to 12 months based on existing need.

viii. The construction of a fabricated liquid waste storage structure and associated components if it is the only acceptable alternative (based on site limitations

[i.e., high water table, karst topography, etc.]) for liquid waste management.

4. Cost-share and tax credit are not authorized:
 - i. For operations that do not currently have a way to collect manure (i.e., existing feeding facilities, hardened pads, etc.).
 - ii. For measures primarily for the prevention or abatement of air pollution, unless the measures also have soil and water conserving benefits.
 - iii. For the following:
 - a. Portable pumps.
 - b. Pumping equipment for unloading facilities.
 - c. Buildings or modifications of buildings to house pumping equipment.
 - d. Spreading animal wastes on the land, including distribution system using irrigation pipelines.
 - iv. For animal waste facilities that do not meet local or state regulations.
 - v. For installation primarily for the operator's convenience.
 - vi. For dairy, beef, poultry and swine confined feeding operations that are planned or under construction. A water quality problem must already exist for cost-share to be approved for a BMP. The number of livestock that would be used to design the animal waste control facility must be present before consideration for cost-share can be given.
 - vii. For waste storage facilities that will not store manure produced on the operation where the facility is to be located. End user facilities are not authorized.
5. All applicants must have:
 - i. The storage capacity calculations of animal waste facilities reviewed and approved by a DCR Agricultural BMP Engineer (except for practices previously sized and engineered by NRCS) and coordinated with the Nutrient Management Plan so that adequate storage capacity is installed.
6. All appropriate local and state permits must be obtained before cost-share and/or tax credits are authorized.
7. 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 under the producer's control receiving manure from the associated storage structure 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).
8. This practice is subject to NRCS standards 313 Waste Storage Facility, 342 Critical

Area Planting, 359 Waste Treatment Lagoon, 362 Diversion, 367 Roofs and Covers, 558 Roof Runoff Structure, 561 Heavy Use Protection, 620 Underground Outlet, 632 Solid/Liquid Waste Separation Facility, 633 Waste Recycling and 634 Waste Transfer.

9. 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less.
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

1. 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 2023~~4~~

Optional Animal Waste Control Facility Data Collection Worksheet

1. What type of operation do you have?
2. How long have you been in operation?
3. Have you expanded or enlarged your operation? If so, when?
4. How often in the past 5 years have you been forced to store waste out-of-doors? How long was the waste stored outside? Was this due to unfavorable conditions beyond your control? Explain. Also locate the storage sites utilized.
 - a.
 - b.
 - c. Explanation:
5. How many livestock per year or birds per flock do you normally raise? Their size, type, etc.
6. How many flocks/herds per year do you normally raise?
7. How often do you clean out or scrape in a year's period? When and how is the waste used and/or stored? Also give the number of partial and total clean outs for poultry.
8. What use do you make of the waste produced?
9. Is any waste disposed of off your farm? Explain.
10. How much pasture, hayland and cropland are available to spread waste on in your operation?

Pasture acres _____

Hay acres _____

Cropland _____

Completed by: _____
Signature Date Title

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 features 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. 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 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) may be installed to facilitate herd movement from the barn to the loafing lots. Crusher run is not an acceptable surface material. Slope 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 be sized 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 Quality Impairment from Heavy Use Areas/Animal Concentrated 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 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. Storage 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.~~

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 under the producer's control receiving manure from the associated storage structure. 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. 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 (04/19) 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.
11. Cost-share is authorized for watering facilities in the loafing lots.
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).
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 Hay 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, 614 Watering Facility, 620 Underground Outlet, 632 Solid Liquid Separation Facility, 633 Waste Recycling, 634 Waste Transfer, and 642 Water Well.

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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less.
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 2023³⁴

Name of Practice: COMPOSTER FACILITIES
VACS Program Specifications for No. WP-4C

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Composting 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 manage the treatment and disposal of poultry, small ruminant and swine carcasses resulting from normal mortality and to improve water quality by composting those carcasses and spreading the composted material at the proper time, rate, and location.

B. Policies and Specifications

1. This practice is designed to provide facilities for composting poultry, small ruminant and swine carcasses from normal mortality, storage of raw materials necessary for composting, storage of the composted end product, and the recycling of composted carcasses by land applying the end product in a manner that will abate pollution that would otherwise result from existing disposal methods for normal mortality carcasses.
2. All applicants must have:
 - i. A written operation and management plan for each composting structure.
 - ii. 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 for land application of the composted end product and other animal wastes. The Nutrient Management Plan shall be implemented and maintained for the life of the practice.
 - iii. A manure test for the composted end product for nutrient analysis and, if applicable, a separate test for any other land applied animal wastes (once during the first twelve months of operation of the structure).
 - iv. A thermometer of suitable design, which will permit temperature monitoring through the depth of the composting material within a bin or cell. During the composting process, temperatures must be achieved that are adequate to kill known pathogens.
 - v. For composting swine mortality, one of the following high-carbon bulking agents for mortality coverage must be used:
 - a. Sawdust or fine wood chips obtained from a sawmill or other wood processing facility.
 - b. Ginning trash obtained from cotton gins.
 - c. Chopped straw or chopped cornstalks.

- d. Other organic materials, as recommended by technical composting publications, including Virginia Cooperative Extension “Composting for Mortality Disposal on Hog Farms” publication 414-020 (Virginia Tech., 2003); Arkansas Cooperative Extension Service “Disposal of Swine Carcasses in Arkansas” publication MP392 (Univ. of Arkansas, 1997); Missouri Cooperative Extension Service “Composting Dead Swine” publication WQ225 (Univ. of Missouri, 1994).
3. Expenses are authorized:
 - i. For composting facilities that will contribute significantly to maintaining or improving soil or water quality.
 - ii. For constructed composting facilities, which are free standing or attached to a dry waste stacking facility. Constructed composting facilities may also be housed within dry waste stacking facilities when housing the composting facilities does not interfere with the waste storage and management of stacking facilities.
 - iii. For prefabricated composting including drum composting facilities or poultry mortality freezers. Cost-share payment and tax credit shall be based on the least costly technically feasible option.
 - iv. For leveling and filling to permit the installation of an effective system.
 - v. For concrete construction necessary for the structure's foundation and a minimal work area needed for equipment used to load, mix, and unload the compost and bulking materials into or from the composting facilities.
4. Expenses are not authorized:
 - i. For thermometers.
 - ii. For composting facilities that do not meet local and state regulations.
 - iii. For planned facilities. An existing water quality problem must be apparent to be eligible for funds.
 - iv. For planned enlargement of livestock operations. However, cost-share funds are available for use to solve existing problems.
 - v. For the acquisition of approved bulking agents.
5. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage under the producer's control receiving manure from the associated storage structure ~~contained within the field upon 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).

6. All appropriate local and state permits must be obtained before cost-share payments are authorized.
7. This practice is subject to NRCS Standards 313 Waste Storage Facility, 316 Animal Mortality Facility, 317 Composting Facility, 362 Diversion, 367 Roofs and Covers, 558 Roof Runoff Structure, 561 Heavy Use Area, 620 Underground Outlet, 633 Waste Recycling, and 634 Waste Transfer.
8. 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less, of poultry, small ruminant and swine composting facilities only.
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 Manual.
3. If a participant receives cost-share, only the percent of the total cost of the project that the participant 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 ~~2023~~2024

Name of Practice: ANIMAL MORTALITY INCINERATOR FACILITIES
VACS Program Specifications for No. WP-4F

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Animal Mortality Incinerator Facility which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides a planned mortality incineration system that will dispose of poultry and livestock carcasses resulting from normal mortality.

B. Policies and Specifications

1. Cost-share and tax credit programs are available to participants to implement an incineration facility to protect and improve water quality by encouraging better mortality management by incinerating poultry and livestock carcasses resulting from normal mortality and spreading or properly disposing of the residual material at the proper time, rate, and location.
2. This practice is designed to provide facilities for incinerating poultry and livestock carcasses from normal mortality. Incinerators must be sized to accommodate normally expected mortality from the existing operation, and may not consider future expansion of the operation.
3. Authorized participants receive cost-share funds to construct an incineration facility to meet their needs and management capabilities. All applicants must have:
 - i. A written operation and management plan for each incineration facility.
 - ii. 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 for animal wastes, which are land applied. The Nutrient Management Plan shall be implemented and maintained for the life of the practice.
 - iii. A method of disposal of the residual from the incineration facility that does not increase non-point source contamination of state waters if a nutrient management plan is not required for that residual.

4. Expenses are authorized for incinerators sized to accommodate normal expected mortality based upon the type and number of animals currently managed at the operation including:
 - i. For leveling and filling to permit the installation of an effective system.
 - ii. For concrete construction necessary for the structure's foundation and a minimal work area needed to operate the incinerator.
 - iii. For a fuel tank and/or fuel lines sized to supply the incinerator.
 - iv. For concrete construction necessary for the structure's foundation and a minimal work area needed for equipment to load and unload the residuals from incineration.
 5. Expenses are not authorized:
 - i. For incinerator facilities that do not meet local, state or federal regulations.
 - ii. For planned facilities. An existing water quality problem must be apparent to be eligible for funds.
 - iii. For replacing or upgrading an existing incinerator. Cost-sharing is not authorized for planned enlargement of animal operations. However, cost-share funds are available for use to solve existing water quality problems.
 6. Compliance with all appropriate local and state laws, regulations and zoning ordinances is required before cost-share payments are issued. This includes, but is not limited to, acquisition of permits and completion of inspections as required.
 7. 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 under the producer's control receiving manure from the associated storage structure contained within the field upon 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).
 8. This practice is subject to the NRCS Standards 316 Animal Mortality Facility, 317 Composting Facility, 362 Diversion, 367 Roofs and Covers, 558 Roof Runoff Structure, 561 Heavy Use Area, 620 Underground Outlet, 633 Waste Utilization and 634 Waste Transfer.
- C. 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.

D. Rate(s)

1. The VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less, of the animal mortality incinerator facility only.
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 the participant receives cost-share payments, only the percent of the total cost of the project that the participant contributed is used to determine the tax credit.

E. 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 2023⁴

Name of Practice: FEEDING PAD
VACS Program Specifications for No. WP-4FP

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Feeding Pad 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 sensitive karst features 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.

A hardened feeding pad is a gravel or concrete pad that provides a stable area for feeding livestock and allows for the capture of manure. Livestock associated with this practice must be excluded from all live streams or live water.

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. Cost-share and tax credit is not authorized for:
 - i. Facilities that do not meet local or state regulations.
 - ii. Installation primarily for the operator's convenience.
 - iii. Operations that are planned or under construction.
3. Practice Development: To develop a hardened pad for feeding of livestock, state cost-share and tax credit are authorized for:
 - i. Grading and shaping, geotextile fabric, gravel, concrete or bituminous concrete. If concrete is utilized, it shall be curbed.
 - ii. The hardened pad will be cost-shared based upon the existing herd size and planned feeding method, not to exceed 50 sq. ft. per animal unit. Cost-share funds cannot be used to accommodate expansion of the herd size.

4. All other means of reducing the environmental impact of the feeding operation must be explored and rejected, due to economic inefficiency or lack of space for relocation, before cost-share or tax credit can be approved.
5. 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. Refer to the “Needs Determination Worksheet” for more guidance on practice development and eligibility.
 - i. A Nutrient Management Plan is required to properly manage the manure collected from around the feeding pad that addresses all enriched runoff and manure accumulations associated with the feeding pad.
6. All appropriate local and state permits must be obtained before beginning construction.
7. 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 under the producer’s control receiving manure from the associated storage structure~~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).
8. This practice is subject to NRCS Standards 342 Critical Area Planting, 362 Diversion, and 561 Heavy Use Protection.
9. 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less.
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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 features, as well as 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 required to sign a Dry Manure Storage Structure Agreement DCR199-86 (04/19) 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 under the producer's control receiving manure from the associated storage structure 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less.
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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 features 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 required to sign a Dry Manure Storage Structure Agreement DCR199-86 (04/19) 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 under the producer's control receiving manure from the associated storage structure~~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 Hay 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less.
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

Name of Practice: SEASONAL FEEDING FACILITY WITH ATTACHED MANURE
STORAGE

VACS Program Specifications for No. WP-4SF

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Seasonal Feeding Facility with Attached Manure Storage 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 sensitive karst features 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.

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

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 required to sign a Dry Manure Storage Structure Agreement DCR199-86 (04/19) or similar District agreement which addresses the minimum criteria prior to receiving any funds.
 - iii. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by the DCR Agricultural BMP Engineer.

- iv. Unrolling hay in pastures is permitted outside the feeding facility for the lifespan of the practice. Concentrated feeding of any sort is not permitted outside the feeding facility (including but not limited to: hay rings, feed carts, troughs, bunks, etc.)
- ~~iv.v.~~ Feeding area shall be sized on the current herd size and planned feeding method, not to exceed 50 sq. ft. per animal unit.
3. Cost-share and tax credit is authorized for:
- i. Animal waste generated from any qualifying group of animals on the farm where the facility is to be located.
- ~~ii.~~ Feeding area.
- ~~iii.~~ A dry stack manure storage area sized for up to six (6) months of manure production.
- ~~iv.~~ Roofs over the feeding area and manure storage area and roof runoff system.
- ~~v.~~ Individual components of animal waste systems, only if the DCR Agricultural BMP Engineer determines that the component stands alone as a measure that will significantly improve water quality.
- ~~v.~~vi. Fencing and walkways.
4. Cost-share and tax credit is not authorized for:
- i. Storage of manure generated outside of this facility.
- ii. Troughs within the structure.
- iii. Animal waste facilities that do not meet local or state regulations.
5. The sizing calculations of the practice shall be reviewed and approved by the DCR Ag BMP Engineer (except for practices previously sized and engineered by NRCS) and shall be coordinated with the Nutrient Management Plan so that adequate storage capacity is installed.
6. All appropriate local and state permits must be obtained before beginning construction.
7. 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 under the producer's control receiving manure from the associated storage structure 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).

8. This practice is subject to NRCS Standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 382 Fence, 412 Grassed Waterway, 558 Roof Runoff Structure, 561 Heavy Use Protection, 575 Trails and Walkways, 620 Underground Outlet, 633 Waste Recycling and 634 Waste Transfer.
9. 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less.
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 ~~2023~~2024

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
2C	NM-3C	Consider adding legumes in the Description and Purpose of the NM-3C. Suggested language for paragraph 2 “For fields that have previously received manure or biosolids applications according to the current NMP or have a history of high biomass legume cover crops...” Virginia Cooperative Extension recently updated their Nitrogen Soil Testing for Corn in Virginia publication (Publication #418-016) to reflect Nitrogen contributions from legumes.	In NM-3C insert “or have a high biomass legume cover crop”, update reference to PSNT in Rates section. See NM-3C and WFA-NM Attachments for edits.	Yes	2025
4C	SL-8M	Review language in SL-8M B.2 and B.5 and edit for clarity.	Remove SL-8M Section B.2 for clarity and to remove duplicative statements, minor edit to B.5: See SL-8M Attachment for edits.	Yes	2025
6C		Revise WFA NM and CC rates to match regular cost share practice rates. Current WFA rates hinder implementation of the practice for producers who are managing their manure, nutrients and cover crops at a high level. For example: if a producer signs up for PSNT, 2 seasons of manure injection and cover crop, the WFA payment is less than the payment that they could receive if they signed up for the regular cost share practices. Several of the cover crop rates in WFA match regular cover crop rates, while others do not match.	Revise WFA-CC to match VACS rates for Cover Crop with Manure. Update the PSNT and soil nitrate testing language and incentives in WFA-NM. No changes recommended to WFA-NM rates. See WFA-CC and WFA-NM Attachments for edits. No revisions recommended for WFA-NM rates. There was discussion that producers can still earn more not participating in WFA and pursuing regular VACS, which the subcommittee discussed ultimately came down to an operational decision.	Yes	2025
7C		Consider increasing the cost cap for the various nutrient management practices (ie: NM3C, NM1A, NM5N, NM5P, NM4 and NM6).	Make incentive rates for the NM-4 consistent with the NM-3C. Remove the 75% of charge and set rates for NM-3C, NM-4, NM-5N, and NM-5P as flat rate. NM-5P: <i>C. Rates</i>	Yes	2025

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
			2. A VACS payment rate of 75% of the phosphorus application charge, up to a maximum amount of \$8.00 per acre, 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. See NM-3C, NM-4, NM-5N Attachments for edits.		
8C	SL-8B	Triticale should be grouped with rye for the extra incentive payment for SL-8B cover crop. Triticale, like rye, has an excelling root system that makes it an excellent choice for preventing erosion, scavenging nutrients, and building soil structure. Triticale has a heavy residue on the surface much like that of rye, thus making it a good choice for weed suppression. It produces a lot more residue than other cover crops like wheat and barley, thus making it a much more effective cover crop. Producers that plant triticale as a cover crop should be given the extra \$20 dollars per acre because of the advantages it has as a cover crop.	Offer incentive for pure stands of triticale under SL-8B, SL-8M, and WFA-CC based on credit received in the Bay Model. Triticale's assigned efficiencies are lower than pure rye, but higher than other non-rye species. See SL-8B, SL-8M, and WFA-CC Attachments for edits.	Yes	2025
11C		Consider raising the cost-share rates for SL-8M, SL-8H, NM-7, WQ-4, and any other cover crop practice to be in proportion with the SL-8B practice.	Increase rates for SL-8M to reflect the Bay Model credits (efficiencies) as compared to Early Pure Rye at \$90.00/ acre. No revisions recommended for other cover crop specs. See SL-8M Attachment for edits.	Yes	2025
13C		Review NM specs for consistency regarding sampling fees and the number of acres/fields to be covered by a single test (some say one test per field, others say 7-20 acres).	Add PSNT and Soil Nitrate Test definitions to Glossary: <u><i>Pre-sidedress nitrate test (PSNT): a procedure used to determine soil nitrate-nitrogen levels at a specific time during a corn crop growing season. See also, soil nitrate test.</i></u>	Yes	2025

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
			<u>Soil (fall) nitrate test: a procedure used to determine soil nitrate-nitrogen levels prior to the small grain crop growing season. See also, Pre-sidedress nitrate test (PSNT).</u> Revise NM-4, NM-5N, NM-7, and WFA-NM for consistent testing recommendations for the PSNT/Fall soil nitrate test: NM-7: <i>B. Policies and Specifications</i> 10. A fall soil nitrate test is required annually. If the 6” fall soil nitrate test is less than 30 ppm, then a manure application at planting is allowed. If fall soil nitrate test is greater than 30 ppm at planting, then the crop must be well established (4-6” tall and 50% ground cover) and temperatures conducive to N uptake at time of manure application. <u>Soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.</u> See NM-4, NM-5N, and WFA-NM Attachments for edits. The outdated NM-4 standard and spec was revised for clarity and consistent wording and formatting with other specifications, particularly the NM-3C. See the NM-4 Attachment for edits.		
Original Item split 16C.ii		And/or offer additional incentive for any cover crop with significant amounts of biomass in the Spring. This idea would be similar to the “pay for production” that was considered in a previous year. For example, the \$90/acre cover crop payment	Add \$10.00 incentive for late kill-down to the SL-8B, SL-8M, and WFA-CC specifications. Also add the ability to ‘plant green’ for clarity. See SL-8B, SL-8M, and WFA-CC Attachments for edits.	Yes	2025

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
		would be based upon the amount of biomass achieved in the spring and not just when it was planted in the fall. So, there might be 2 planting commitment levels: 1. Planting with low biomass - this would be the producers that kill cover early (March 15) or don't get much biomass when spot-checked - \$60/acre 2. Planting with high biomass – producers would commit to a later kill date (April 15). Biomass samples could be taken - \$90/acre			
17C	NM-5N	Edit the NM-5N Rates section regarding hayland applications. Currently the Rates section says “more than two” but should be “two or more”, consistent with section B. Review other wording in Rates section for edits needed to be consistent with requirements for small grains and other crops.	Update language in NM-5N C.1 paragraph 2 to “or two or more applications on highly managed hayland” to match language in NM-5N B.v. See NM-5N Attachment for edits.	Yes	2025
19C	WFA-NM	In the WFA-NM replace the requirement to verify implementation of the NMP (B. 1. vi.) with the NMP implementation policy found in other NM specs.	Update language in the WFA-NM to be consistent with other NM practices regarding nutrient management plan implementation. See WFA-NM Attachment for edit.	Yes	2025
22C		Add the following to SL-15A Description and Purpose: “To encourage utilization of this practice by producers with cotton and peanuts in their rotation, a one-time exception to maintaining 60% residue for five consecutive years will be granted to those willing to add an extra year to the lifespan of this practice”. Under B.2., add, “For fields planted in peanuts, a small grain or cover crops must be planted within 30 days of digging. Cotton fields may also need to be	The subcommittee felt it was more appropriate to address this suggestion under the SL-15B spec as opposed to the SL-15A. This would create a high residue (SL-15A) and a conservation/residue tillage (SL-15B) spec. The subcommittee also recommends adoption of a CCI-RT practice. In addition, language regarding ‘one time per field’ was not clear. This language is recommended to be revised in SL-1, SL-15A, SL-15B	Yes	2025

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC

Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
		planted in a small grain or cover crops to maintain biomass”. Under B.6., add, “For fields that have been rutted during harvest, small grains or cover crop must be planted within 30 days to maintain compliance with this specification. It is recommended that cover crops planted after November 1st be drilled to ensure an adequate stand”. <i>Deferred in 2022</i>	See SL-15B and CCI-RT Attachments. Edits to SL-1, SL-15A: SL-1: <i>B. Policies and Specifications:</i> <i>5. State cost-share and tax credit <u>contracts for the SL-1</u> will be provided only one time per field, while that field is under the same ownership.</i> SL-15A: <i>B. Policies and Specifications:</i> <i>4. State cost-share <u>and tax credit contracts for the SL-15A</u> will be provided only one time per field.</i>		
23C		Revise NM-5N B.3 to clearly distinguish/describe PSNT and tissue samples. Currently both are listed under B.3.i in a way that can be confusing.	Remove “plant tissue samples or petiole samples” for clarification in NM-5N B.3. See NM-5N and WFA-NM Attachments for edits.	Yes	2025
Un-numbered (UN-C)		Add Cotton to the NM-3C standard to promote the split application of cotton through a sidedress at first square (the optimal growth stage and highest demand the crop has for nitrogen). Studies have been shown by NCSU that "cotton utilizes very little N and K from planting until first square, and peak demand for nutrients like N and K occurs during the bloom period.” Read more at: https://cotton.ces.ncsu.edu/2016/06/the-importance-of-timely-side-dress-fertilizer-	Insert cotton into the NM-3C and WFA-NM specifications. See NM-3C and WFA-NM Attachments for edits.	Yes	2025

MATRIX OF ADVANCED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
		application-and-proper-petiole-sampling-collins-edmisten-crozier-hicks/ <i>This suggestion was not received by the submission deadline. If time allows, the TAC may take it up after all other business for the year is complete.</i>			

Changes to cost-share practice specifications will be applied to corresponding voluntary specifications.

MATRIX OF DEFERRED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring
1C		Revise cover crop rates to incentivize mixed species over pure rye. Research shows early planted mix of brassica and rye takes up more nitrogen than rye alone https://access.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/jeq2.20342	Deferred to CY24 TAC cycle in order to gather more information from VA land grant universities and discuss possible credit in Bay Model with Ag Workgroups.
7C		Consider increasing the cost cap for the various nutrient management practices (ie: NM3C, NM1A, NM5N, NM5P, NM4 and NM6).	The subcommittee recommended adding cost share for precision soil sampling to the NM-5P. This recommendation was deferred by the Full TAC for revision/clarification. NM-5P: C. Rates <u>2. No per sample cost share is available for zone/grid (subfield) soil fertility testing. Costs associated with zone or grid (subfield) soil sampling and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of \$6.00 per acre. New soil sample commercial laboratory results (within the program year the payment is being made) must be provided for reimbursement.</u>
10C		Add a cost-share practice for electrical conductivity (EC) in PY 2024. We suggest this be available to participants as a one-time opportunity to have their land mapped using EC precision technology. Soil EC is a single measurement that can help tell a producer about multiple soil properties that affect crop productivity such as organic matter, soil texture, and subsoil characteristics. Soil EC maps can also be used to more accurately direct grid or zone precision soil sampling. A producer who has completed EC mapping on their operation is able to improve the placement of nutrients and other inputs, protecting the environment and helping their bottom line.	Defer in order to gather appropriate information for relevant specifications for comparison and discussion regarding incorporation into the VACS manual
20C		Add a practice to re-enroll or capture existing grassland that was converted from row crop (may help with WIP). <i>In 2022 the subcommittee voted to create a CCI practice for the existing SL-1 to address this suggestion, which was deferred by the full TAC.</i>	The subcommittee voted to move to another sub-committee to better address the CCI. The SL-1 is a conversion practice from row crop, the CCI would be for the maintenance of hay or pasture.

MATRIX OF TABLED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
3C	WFA-CC	Consider adding all cover crop practices including the SL-8A and NM-7 as part of the WFA- CC practice suite.	The committee tabled item 3C because the Whole Farm Approach (WFA) was designed to capture the most common agronomic practices. SL-8A and NM-7 are not commonly utilized practices, in addition the NM-7 is a Nutrient Management practice.
5C	SL-1	Consider removing the restriction in the SL-1 specification listed in B-5, only allowing payment once under the same ownership. There are considerable nutrient and sediment load reductions associated with this practice and that we are missing capturing due to the restriction. Furthermore, this is the only agronomic practice that has this restriction.	The SL-1 practice is intended to be a one-time conversion from cropland to hayland. Reductions for the SL-1 in the Chesapeake Bay Model are only received once per field enrolled.
9C		There should be a precision soil sampling program for either grid or zone soil sampling that would pay a percentage for the implementation of precision soil sampling. Precision soil sampling is becoming more popular and has many advantages to it. The concept of precision soil sampling is to determine which sections of the field need more fertilizer such as lime and potash. This then reduces the amount of fertilizer that needs to be spread helping the environment and the farmer's pocket.	There are already precision nutrient management practices such as NM-5N and NM-5P available in the VACS program that have a direct water quality benefit.
12C	All NM specifications	Review NM specs that reference PSNT and soil nitrate testing for consistent language. These are the same test run at different times of the year.	Pre-sidedress nitrate tests and soil nitrate tests are seasonally appropriate terms.
14C	NM-5N	For NM-5N, request that a pre-plant application of "ESN: Smart Nitrogen" be eligible for the first split pre-planting of corn or cotton. Currently the NM-5N states, "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." https://smartnitrogen.com/how-esn-works/ This new innovative source of nitrogen promotes efficient uptake and prevents nitrogen losses which is exactly the purpose of the NM-5N practice. By allowing a pre plant application farmers can more accurately place nitrogen in the root system and ensure that it reaches the intended crop thanks to its delayed release. This allows more flexibility	ESN: Smart Nitrogen is a product only available through Nutrien, other versions of the product have lower than intended percentages of inhibitors thus making the product ineffective.

MATRIX OF TABLED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
		for farmers to participate in the NM-5N practice and split their nitrogen applications over the full growing season.	
15C		Develop a BMP for application of compost on cropland. A draft BMP spec is provided as a starting point.	Nutrient recommendations of compost are out of line with VA Nutrient Management Recommendations with an unknown nitrogen release value.
Original Item split 16C.i		Establish a higher rate for legume cover crops, particularly vetch, either in combination or not in combination with a small grain. Vetch cover crops are providing significant biomass and nitrogen fixation to reduce nitrogen applications on subsequent crops. The reduced N application is a water quality goal. Currently, the legume crops receive a reduced cost-share rate at \$45/acre. We feel that this needs to be more in line with cost share rates for small grain cover crops.	The subcommittee tabled establishing a higher payment rate for legume cover crops due to the decreased Bay Model credit for legume versus rye.
18C	NM-6	It was recently clarified that the NM-6 allows payment for multiple injections on the same field in one program year. The spec should be updated to specify that multiple injections will be paid under one instance.	Subcommittee recommendation (below) was tabled by the Full TAC. Members felt multiple signups and payments on the same field during the program year should be allowed. (DCR opposed tabling) Add language to clarify that the NM-6 is an annual practice and payment will be made once per contract in the program year. NM-6 <i>B. Policies and Specifications</i> 6. <u>This is an annual practice.</u> Participants may receive cost-share or tax credit for multiple injections on the same acres in the same program year (e.g. fall and spring), consistent with the Nutrient Management Plan and other requirements of this specification. <i>C. Rates</i> 2. A VACS payment rate of \$45 per acre is available. <u>Payments will be made once per contract in the program year.</u> Participants may receive either a cost-share payment or a tax credit for implementation of this practice, but not both on the same acreage.

MATRIX OF TABLED COVER CROP NUTRIENT MANAGEMENT RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
21C		NRCS now pays for variable rate lime, nitrogen, phosphorus and potassium through their Conservation Stewardship Program "Level C". Reconsider the inclusion of variable rate lime and potash into the VACS Program. <i>Deferred in 2022</i>	This is an indirect water quality issue and incentives are available through NRCS programs.

Continuing Conservation Initiative
Name of Practice: LONG TERM CONTINUOUS REDUCED TILLAGE
PLANTING SYSTEMS
VACS Program Specifications for No. CCI - RT

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Continuous Conservation Initiative Long Term Continuous Reduced Tillage Planting Systems best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will implement a continuous conservation tillage planting system and nutrient management planning technologies that result in the reduction of non-point source pollution to state waters from nutrients and sediments. The practice will increase biomass/soil quality and manage the residue to reduce the movement of nitrogen, phosphorus, sediments and runoff with the use of no-till planting systems.

This long-term continuous conservation tillage planting system reporting practice is designed to provide a financial incentive to assure that lands being managed under continuous conservation tillage planting systems are reported to DCR. These conservation tillage systems are required to be effective and functioning as designed throughout the lifespan of this practice.

B. Policies and Specifications

1. Eligibility

- i. Eligible land must be managed under a continuous conservation tillage planting system that utilizes a non-inversion tillage method and results in a **minimum of 30% residue cover** on all of the enrolled acres and must be maintained for the lifespan of the practice. Prior to practice authorization, Districts must verify that conservation tillage planting methods have been utilized on site and that 30% cover exists on the land. Land enrolled in an active SL-15B practice **is not eligible for CCI- RT.**
- ii. All eligible fields must have a cropping history two out of the past five years. Only multi-year, multi-crop rotations on cropland that include at least two crops of small grain or cover crop in five years are eligible. Small grain crops may be harvested for grain, straw may remain on field. Permanent grass or hay land is not considered cropland.
- iii. Participants may not receive CCI-RT payments and Nutrient Offset Credits on the same acres simultaneously.

- 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).
- 2. The practice must not be in lifespan from any other conservation program.
- 3. Practice Development
 - i. If the planting of a cover crop is needed to maintain biomass, the producer is eligible to plant cover under SL-8B or WQ-4.
 - ii. The system must be maintained for a minimum of five years.
 - iii. All crops must be planted using conservation tillage methods.
- 4. Practice Implementation
 - i. Biomass requirements for cash grain, oilseed, cotton, peanut and small grain rotations must maintain a minimum of 30% residue cover on the enrolled acres and must be maintained for the lifespan of the practice.
 - ii. This practice is subject to **annual** spot checks by District staff throughout its lifespan.
 - iii. This practice is subject to NRCS Standards 340 Cover Crop, 328 Conservation Crop Rotation, and 595 Pest Management.
- 5. 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 calendar year of certification of completion. By accepting cost-share payment 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.

C. Rate(s)

The VACS payment rate is an incentive payment of \$3 per acre for the life of the practice. Payment for the five year contract will be made the first year of the contract and will be calculated at (\$3/acre) x (number of acres in the contract) x (5 years).

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 2024

Name of Practice: SIDEDRESS APPLICATION OF NITROGEN ON CORN, ~~AT THE 6-LEAF STAGE OR AT LEAST 15" IN HEIGHT AND/OR GRAIN SORGHUM, AT THE 5-LEAF STAGE OR AT LEAST 12" IN HEIGHT AND/OR COTTON~~

VACS Program Specification for No. NM-3C

UN-C

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Sidedress Application of Nitrogen on Corn, ~~and/or Grain Sorghum,~~ and/or Cotton practice which are applicable to all contracts entered into with respect to that practice.

UN-C

A. Description and Purpose

This practice will encourage the sidedress application of nitrogen (organic OR inorganic) on corn ~~and/or grain sorghum, and/or cotton.~~ 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 (corn at 15" to 24" tall; grain sorghum at 12" to 18" tall) cotton between first square and first (white) bloom.

UN-C

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

2C

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, ~~and/or grain sorghum, and/or cotton~~ 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.

UN-C

2. The total number of corn acres specified by the nutrient management plan to receive manure, or have a high biomass legume cover crop, 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. 2C
 - 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, and/or grain sorghum is at the 5-leaf stage or at least 12 inches in height, or cotton is between the first square and first bloom stage. UN-C
6. A minimum of 20 lbs of inorganic nitrogen per acre must be applied to be considered a sidedress application for the management of nitrogen.
7. Total nitrogen to be applied to the corn, and/or grain sorghum, and/or cotton field must be consistent with the nutrient management plan or determined by using a PSNT (as applicable for corn) consistent with procedures contained in the Nutrient Management Training and Certification Regulations (4VAC50-85 et. Seq). UN-C
8. 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 or high biomass legumes only; biosolids are not eligible for payment. 2C
9. 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. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre. 4I

2. A VACS payment rate of ~~75% of the nitrogen 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~~PSNT sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of \$12.00 per sample. ~~The reimbursement flat rate can only be utilized once per sample.~~ samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

7C

Edit for accuracy in types of tests included

Edit for clarity, consistency

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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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. Eligibility for this practice is limited to the length of the plan recommending the split nitrogen application.
- ~~ii.~~ The producer must provide a 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 when the application has been contracted out.**
- ~~iii.~~ 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.
- ~~ii-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 small grain acres specified by the Nutrient Management Plan 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. Cost-share payment for soil nitrate test laboratory analysis will be made only for those soil nitrate tests that are submitted for laboratory analysis.
 - i. The soil nitrate test must be done prior to small grain planting.
 - ii. Soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.
 - ~~iii.~~ 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*.
 - ~~ii.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.
 - ~~iii.~~ ~~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.~~
3. ~~Practice Implementation~~

~~To ensure the impact of nitrogen to ground and surface waters is minimized in small grain production, nitrogen rates shall follow recommendations contained in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014*.~~
- 4.3. Checks to ensure compliance 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.
 - i. ~~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.~~
- 5.4. The producer must sign up prior to February 1 and provide written verification (such as a work order or bill) of contracted sidedress application cost (including the soil nitrate test results) to the District within two weeks of the second application and prior to cost-share payment.
5. A minimum of 20 lbs of inorganic nitrogen per acre must be applied to be considered a split application for the management of nitrogen.
6. 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*~~ consistent with the Nutrient Management Plan or determined by using a soil nitrate test consistent

with procedures contained in the Virginia Nutrient Management Standards and Criteria, revised July, 2014.

7. Acres enrolled in the NM-4 practice are ineligible receive payment for an SL-8H on the same acres.

5.8. 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. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre. 4I
2. A VACS payment rate of 75% of the nitrogen application charge, up to a maximum amount of \$4.506.00 per acre, if offered for the second application in the late winter shall be paid based upon the contracted second application acreage Producers applying their own second application will receive \$6.00 per acre applied. If only one late winter application is made, no reimbursement is to be provided. 7C
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 \$812.00 per sample. The reimbursement flat rate can only be utilized once per sample, samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average. 7C

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 2023/2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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), fall soil nitrate tests, 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.

Edit for
accuracy
in types
of tests
included

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) or fall soil nitrate test Plant tissue samples or petiole-s 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. PSNT or fall soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.
 - 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 56-leaf stage or at least 12" 15 inches in height, grain sorghum is at the 5-leaf stage or at least 12 inches in height, or cotton is between the first square and the first bloom stage.
 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. A minimum of 20 lbs of inorganic nitrogen per acre must be applied to be considered a split or sidedress application for the management of nitrogen.
 9. 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.
 10. 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).

11. Acres receiving a zero application rate based on a PSNT result also qualify for a payment rate of \$8 per acre.
12. 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.
13. 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.
14. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
15. Fields that have received applications of biosolids within the previous 24 months are not eligible.
16. 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. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre. 4I
2. A VACS payment rate of 75% of the nitrogen 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 or more applications on highly managed hayland. 7C
17C
3. 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 \$12.00 per sample, up to one PSNT per field. The reimbursement flat rate can only be utilized once per sample. PSNT or fall soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average. 13C

3.4. 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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.

5. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field 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).
6. 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.
7. 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.
8. 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.
9. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
10. Fields that have received applications of biosolids within the previous 24 months are not eligible.

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. 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. A VACS payment rate of ~~75% of the phosphorus 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 ~~2023~~2024

Name of Practice:
COVER CROP FOR MANAGING LIQUID OR SEMI-SOLID MANURE
VACS Program Specifications for
No. NM-7

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Cover Crop for Managing Liquid or Semi-Solid Manure best management practices that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

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

This practice will provide an incentive to keep cover on cropland receiving liquid or semi-solid manure, which will help prevent the loss of nutrients. The primary purposes are to reduce the leaching of nitrogen to groundwater and reduce runoff of nutrients into surface waters; a secondary purpose is to reduce winter rain and wind-generated erosion. This BMP is designed to help liquid/semi-solid manure generating operations improve nitrogen and phosphorus management through applications to actively growing crops. This BMP will utilize current nitrogen applications and residual nitrogen 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. 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. This practice applies only to operations generating liquid or semi-solid manure. Use of imported manure does not qualify.
4. This practice shall not be used for grain production.
5. The cover crop planted as part of this practice shall be harvested (for hay, haylage, silage, or straw) or killed (chemical or other non-tillage methods) prior to viable seed development. All remaining cover crop residue shall be left on the surface and no

tillage of the cover crop is allowed post-harvest/burndown. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through the life of the practice. The practice will be considered complete once the cover crop has served its purpose and been killed.

6. The practice is intended to provide an incentive to keep a vegetative cover on cropland receiving manure, which will help prevent the loss of nutrients, by absorbing any excess nutrients from the soil and reducing surface erosion.
7. This practice applies only to on-farm manure generating operations and to acres necessary for application as referenced in the nutrient management plan. A 3-year nutrient management plan is required for this practice. The 3-year plan is required to reflect active nutrient management planning and implementation. The NMP shall require cropping rotation practices that are consistent with sound agronomic crop production practices (i.e. if the producer knows he will not have sufficient other acreage to make fall manure applications, then the spring/summer crop shall be planned for a harvest date that will allow adequate fall growth to utilize the nutrients and reduce soil erosion.)
8. Planting shall occur within 2 weeks of summer/fall harvest, but no later than the planting dates listed.
9. Winter tissue testing is encouraged as part of the practice for crops that will be harvested.
10. A fall soil nitrate test is required annually. If the 6" fall soil nitrate test is less than 30 ppm, then a manure application at planting is allowed. If fall soil nitrate test is greater than 30 ppm at planting, then the crop must be well established (4-6" tall and 50% ground cover) and temperatures conducive to N uptake at time of manure application. Soil nitrate tests should represent a minimum of 7 acres on average and a maximum of 20 acres on average.
11. A manure sample shall be taken at time of application and is a required component of this practice. Application recommendations shall be consistent with the approved NMP and a recent manure test (i.e. within 1 year).
12. Total fall N application shall not exceed 30 lbs/acre. Commercial P may be applied on soils having less than a medium soil test level. Total P application (manure + commercial) shall not exceed recommendation for the crop rotation in the nutrient management plan. Commercial N (not to exceed 15 lbs/acre) as part of the P fertilizer is allowed.
13. Spring N applications (after March 1) shall be based on tissue tests.
14. Soil tests must be taken within 18 months of practice sign-up.

15. 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 seed mixes shall contain 2 bu/acre small grain	
Ryegrass mixtures shall contain 20 lbs./acre ryegrass	

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

16. 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)	October 25
Piedmont	October 10
Mountain and Valley	October 5

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

C. Rate(s)

1. A VACS payment rate of **\$35** 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. 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 ~~2023~~2024

Name of Practice: LONG TERM VEGETATIVE COVER ON CROPLAND
VACS Program Specifications for No. SL-1

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Long Term Vegetative Cover on Cropland best management practice which is applicable to all contracts, entered into with respect to that practice.

A. Description and Purpose

Grass and/or legume vegetation will be established on cropland with existing cover of less than 60% converting it to pasture or hayland to reduce soil erosion and enhance water quality.

State cost-share is intended to promote conversion of cropland to fields with a healthy, well-maintained sod.

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 can be either a one-year or three-year plan that is updated to continuously cover the acreage or a five-year grass and hayland plan. This is to ensure proper nutrient application for a successful practice. This plan must be prepared and signed by a Virginia Certified Nutrient Management Planner and on file with the SWCD before a cost-share payment can be made.
2. Soil loss rates must be computed for all applications for use in establishing priority considerations and reflect at minimum a three year cropping history.
3. This practice is not intended to be used to reseed or improve hay or pastureland.
4. Pastures and haylands that are planted under this practice will be grazed or harvested and maintained in accordance with NRCS Standard 512 for the lifespan. Cost-share will be refunded if the cover is destroyed during the lifespan. This practice is subject to verifications by the District throughout the life of the practice and failure to comply may result in the forfeiture of the funds.
5. State cost-share and tax credit contracts for the SL-1 will be provided only one time per field, while that field is under the same ownership.
6. State cost-share or tax credit will not be approved for fields with more than 60% cover, with the exception of crop fields that have a row crop or small grain residue, in which case cover in excess of 60% is permissible.

7. State cost-share is allowable only for BMP installations that are not receiving cost-share from other sources.
8. Cost-share and tax credit are not authorized for obstruction removal, fencing, or watering facilities.
9. Fertility - Lime and fertilizer can be applied for maintenance purposes but must be done in accordance with current soil test recommendations (at Virginia Cooperative Extension maintenance rates for the appropriate sod species). Maintenance applications are the obligation of the participant. If biosolids or manure is used, the material must be properly sampled and tested for nutrient content and given credit in fertilizer recommendations.
10. Cost-share and tax credit are not authorized for the planting of pure stands of alfalfa.
11. This practice is subject to NRCS Standard 512 Pasture and Hay Planting.
12. All practice components implemented must be maintained for a minimum of five years and a maximum of 15 years following the calendar year of certification of completion. 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 VACS payment rate is 75% of the approved estimated cost or eligible actual cost, whichever is less, in addition to a one-time incentive payment of \$25 per acre for a five-year contract, \$100 per acre for a 10-year contract, or \$150 per acre for a 15-year contract.
2. Eligible components are as follows:
 - i. Eligible seed
 - ii. Minerals (fertilizer, lime, manure); if manure (e.g. poultry litter) is purchased from off farm, a bill and nutrient analysis must be presented.
 - iii. Herbicides
 - iv. Pesticides
 - v. Nutrient management planning
 - vi. Labor
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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.

Edit for accuracy. Rates stack but are not variable.

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
<u>Winter Triticale</u>	<u>2 bu./acre</u>
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

8C

[†] - 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.

12.13. 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. "Planting green", planting directly into the growing cover crop prior to termination, is allowed.

16C

C. Rate(s)

1. A VACS payment rate of **\$40** 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. 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 Coastal Plain and 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. 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 Coastal Plain and the cities of Chesapeake and Virginia Beach that have late November planting dates.

Edit to clarify same requirement from C.3. applies here

4. A **\$20** 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.

5. A **\$10** per acre bonus payment is available for all applicants that plant pure stands of winter triticale on or before either planting date.

8C

- 5.6 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 **\$10** per acre bonus. "Planting green", planting directly into the growing cover crop prior to termination, is allowed.

16C

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 2023/2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.~~

~~3.2.~~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).

~~4.3.~~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.

4C

~~5.4.~~ No nutrients from any source are allowed between the harvesting of the previous crop and prior to planting, except that use of manure (organic, 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).

~~6.5.~~ No nutrients may be applied at planting.

~~7.6.~~ 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.

~~8.7.~~ **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.

~~9.8.~~ Aerial seeding is not applicable for this practice.

~~10.9.~~ Seeding rates shall be adjusted based on germination rates.

~~11.10.~~ 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.

~~12.11.~~ 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.**

~~13.12.~~ Land enrolled in this practice may not be enrolled in another state cover crop practice.

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

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
<u>Winter Triticale</u>	<u>2 bu./acre</u>
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

8C

† - 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.

15.14. 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

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

15. 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.

16. 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. Planting green, planting directly into the growing cover crop prior to termination, is allowed.

16C

C. Rate(s)

1. A VACS payment rate of \$15-20 per acre is available. Districts should not issue payment if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14. 11C
2. 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 \$22-25 per acre early planting bonus payment is available for cover crops planted on or before the early planting date specified for their physiographic region. Districts should not issue payment if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14. 11C
5. A \$8-10 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. 11C

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.

6. A \$5 per acre bonus payment is available for all applicants that plant pure stands of Winter Triticale on or before either planting date.

8C

7. 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 \$10 per acre bonus payment. Planting green, planting directly into the growing cover crop prior to termination, is allowed.

16C

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 ~~2023~~2024

Name of Practice: CONTINUOUS HIGH RESIDUE MINIMAL SOIL DISTURBANCE
TILLAGE SYSTEM
VACS Program Specifications for No. SL-15A

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's High Residue Minimal Soil Disturbance Tillage System best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will implement continuous high residue minimal soil disturbance tillage systems and nutrient management technologies resulting in the reduction of non-point source pollution to state waters from nutrients and sediments. It will also increase biomass/soil quality, recognize nutrient management indicators, and manage the movement of nitrogen, phosphorus, sediments and runoff by maintaining rain drop intercepting residue cover on the soil surface.

The purpose of this practice is to encourage the conversion of minimum and conventional tillage fields to a continuous high residue minimal soil disturbance tillage system and will maintain a minimum of 60% rain drop intercepting residue cover on the enrolled acres for the lifespan of the practice.

B. Policies and Specifications

1. Eligibility:

- i. All eligible fields must be converting from a minimum till or conventional till systems to a high residue minimal soil disturbance tillage system.
- ii. Fields must have a cropping history for two out of the past five years.
- iii. Multi-year, multi-crop rotations must include at least two crops of small grain, including those planted as cover crops, in five years to be eligible. No harvest of small grain hay or straw is allowed. Permanent grass or hay land is not considered cropland for this practice.

2. If the planting of a cover crop is needed to maintain biomass, the producer is eligible to plant cover under SL-8B or WQ-4.

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. State cost-share and tax credit contracts for the SL-15A will be provided only one time per field.
5. Fields that have received payment in federal continuous no-till or conservation tillage programs are not eligible to participate in this practice. However, fields that have received cost share payment through this practice are not restricted by this practice from participation in federal or state conservation systems programs.
6. Biomass requirements for all crop rotations must maintain a minimum of 60% rain drop intercepting residue cover on the enrolled acres for the lifespan of the practice.
7. This practice is subject to NRCS Standards 340 Cover Crop, 328 Conservation Crop Rotation, and 595 Integrated Pest Management.
8. 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)

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. The VACS payment rate is a one-time incentive payment of \$70 per acre.
3. Only the participant's eligible out-of-pocket expenses may 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.

Revised April ~~2023~~2024

Name of Practice: CONTINUOUS ~~NO-TILL FORAGE CONSERVATION~~
TILLAGE PRODUCTION SYSTEM

VACS Program Specifications for No. SL-15B

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Continuous ~~No-Till Forage~~Conservation Tillage Production System best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice is designed to expand implementation of continuous ~~no-till~~conservation tillage planting systems, continuous cover, and nutrient management technologies that will result in the reduction of non-point source pollution to state waters from nutrients and sediments.

Its purpose is to reduce erosion by minimizing tillage of soils on cropland. This will improve soil quality by recognizing nutrient management indicators that manage the movement of nitrogen, phosphorous, sediments and runoff with the use of ~~no-till~~conservation tillage planting techniques.

B. Policies and Specifications

1. Eligibility:

i. —

i. All eligible fields must be converting from a ~~minimum or~~ conventional till system to a continuous ~~no-till~~conservation system.

ii. All eligible fields must have a cropping history two out of the past five years.

~~ii.iii.~~ Multi-year, multi-crop rotations must include at least two crops of small grain, including those planted as cover crops. Permanent grass or hay land is not considered cropland for this practice.

~~1. All eligible fields must have RUSLE2 soil loss calculations comparing the pre-practice conditions and the erosion that occurs after the practice is installed. The RUSLE2 comparison calculations must show a significant reduction in erosion for the field to be eligible. This amount should be entered in the appropriate column on the application form.~~

2. If the planting of a cover crop is needed to maintain biomass, the producer is eligible to plant cover under SL-8B or WQ-4. Participants may receive payments for the cover crop practices and the Continuous ~~No-till Forage~~Conservation Tillage Production System simultaneously, so long as all practice specifications have been met. Cover crops are strongly encouraged throughout the life of the contract.

2.3. 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).

3.4. State cost-share and tax credit contracts for the SL-15B will be provided only one time per field.

5. Fields that have received payment in federal continuous no-till or conservation tillage programs are not eligible to participate in this practice. However, fields that have received cost share payment through this practice are not restricted by this practice from participation in federal or state conservation system programs.

4.6. Cropping rotations that involve the removal of residue are eligible, so long as the residue coverage levels are maintained at a minimum of 30%. Land must be covered with an actively growing crop. Straw may remain on the field. All crops must be planted utilizing no-till planting methods within 30 days of harvest, grazing or removal of biomass.

5. If cover crops are planted, a good stand and good growth of winter cover should be obtained in sufficient time to protect the area in the fall and winter.

6. State cost-share contracts will be provided only one time per field.

7. All crops must be planted using ~~no-till~~conservation tillage methods maintaining a minimum of 30% residue coverage at planting and utilizing a non-inversion tillage method (i.e., strip till).

8. Biomass requirements for all crop rotations must maintain a minimum of 30% rain drop intercepting residue cover on the enrolled acres for the lifespan of the practice.

i. For fields that have been rutted during harvest, small grains or cover crop must be planted within 30 days to maintain compliance with this specification. It is recommended that cover crops planted after November 1 be drilled to ensure an adequate stand.

7.9. This practice is subject to NRCS Standards 340 Cover Crop, 328 Conservation Crop Rotation, 590 Nutrient Management, and 595 Integrated Pest Management.

8.10. 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)

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. 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. The VACS payment rate is a one-time incentive payment of \$35 per 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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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, with the exception of unimproved pasture acres. Unimproved pasture acres (pasture acres that do not receive nutrient management or nutrient applications) may be excluded from the tract within the Nutrient Management Plan.

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 crop lands and highly managed hay.

Edit to remove language unintentionally brought in when building WFA-CC spec.

- 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

VACS payment 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 VACS 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. Unimproved pasture acres (pasture acres that do not receive nutrient management or nutrient applications) may be excluded from the tract within the Nutrient Management Plan. 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.

Edit to remove redundancy

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

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

	Rate
Early Pure Rye	\$90.00/acre
Standard Pure Rye	\$60.00/acre

- ii. A VACS payment rate per acre is available for pure stands of Winter Triticale as listed below:

	Rate
<u>Early Pure Winter Triticale</u>	<u>\$80.00/acre</u>
<u>Standard Pure Winter Triticale</u>	<u>\$50.00/acre</u>

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- ~~ii.iii.~~ A VACS payment rate per acre is available for listed small grains, brassicas, and/or mixtures as listed below:

	Rate
Early	\$70.00/acre
Standard	\$40.00/acre

- ~~iii.iv.~~ An additional VACS payment rate of **\$5.00 per acre** is available for a mixed species cover crop that includes 50-75% small grain.

- ~~iv.v.~~ An additional VACS payment rate of **\$10.00 per acre** is available for a delayed cover crop kill down on May 1 or thereafter, but no later than June 1. Planting green, planting directly into the growing cover crop prior to termination, is allowed.

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3. Cover Crop – Fall Manure Application:

- i. A VACS payment rate per acre is available for pure stands of Rye as listed below:

	Rate
Early <u>Pure Rye</u>	<u>\$4055.00/acre</u>
Standard <u>Pure Rye</u>	<u>\$2530.00/acre</u>

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- ii. A VACS payment rate per acre is available for pure stands of Winter Triticale as listed below:

	Rate
<u>Early Pure Winter Triticale</u>	<u>\$50.00/acre</u>
<u>Standard Pure Winter Triticale</u>	<u>\$25.00/acre</u>

8C

- ~~ii.iii.~~ A VACS payment rate per acre is available for small grains, brassicas, and/or mixtures as listed below:

	Rate
Early	<u>\$3245.00/acre</u>
Standard	\$20.00/acre

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- ~~iii.iv.~~ An additional VACS payment rate of **\$5.00 per acre** is available for a mixed species cover crop that includes 50-75% small grain.

- ~~iv.v.~~ An additional VACS payment rate of **\$10.00 per acre** is available for a delayed cover crop kill down on May 1 or thereafter, but no later than June 1. Planting

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green, planting directly into the growing cover crop prior to termination, is allowed.

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4. **Protective Cover for Specialty Crops:** A VACS payment rate of **\$40.00 per acre** is available for protective cover for specialty crops.
5. **Cover Crop – Harvestable:** A VACS payment rate of **\$20.00 per acre** is available for cover crop that is harvested for seed/grain and straw. A VACS payment rate of **\$30 per acre** is available for cover crop that is harvested for seed/grain only with all remaining residue left on the field (straw cannot be baled).
6. **Cover Crop – Legume:** A VACS payment rate of **\$45.00 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 Virginia Agricultural Best Management Practices Cost-Share Program's WFA-CC Standard Cover Crop option which are applicable to all contracts entered into with respect to that practice.

Edit to
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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, 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
<u>Winter Triticale</u>	<u>2 bu./acre</u>
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat <u>or Triticale</u>	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain mixtures with	1 bu./acre
a) legume† or	10 lbs./acre
b) Daikon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Daikon (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

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† 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. Planting green, planting directly into the growing cover crop prior to termination, is allowed.

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C. Rate(s)

1. 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 Coastal Plain and the cities of Chesapeake and Virginia Beach that have late November planting dates.

Edit to add language already in SL-8B

2. The VACS payment rates per acre for pure stands of Rye are below. Participants may also be eligible for the late kill down incentive.

	Rate
Early Pure Rye	\$90.00/acre
Standard Pure Rye	\$60.00/acre

Edit for clarity

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	

3. The VACS payment rates per acre for pure stands of Winter Triticale are below. Participants may also be eligible for the late kill down incentive.

	<u>Rate</u>
<u>Early Pure Winter Triticale</u>	<u>\$80.00/acre</u>
<u>Standard Pure Winter Triticale</u>	<u>\$50.00/acre</u>

8C

- 2.4. The VACS payment rates 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	\$70.00/acre
Standard	\$40.00/acre

- 3.5. 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).

- 4.6. 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 **\$10.00 per acre** bonus. Planting green, planting directly into the growing cover crop prior to termination, is allowed.

16C

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 Virginia Agricultural Best Management Practices Cost-Share Program's WFA-CC Cover Crop with Fall Manure Application option which are applicable to all contracts entered into with respect to that practice.

Edit to
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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 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.~~

4C

3.2. 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).

4.3. 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.

5.4. No nutrients from any source are allowed between the harvesting of the previous crop

and prior to planting, except that use of manure (organic, with less than 40 lbs. N per acre tested) is permitted if all of the following conditions are met:

4C

- 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).

6-5. No nutrients may be applied at planting.

7-6. 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.

8-7. **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.

9-8. Aerial seeding is not applicable for this practice.

10-9. Seeding rates shall be adjusted based on germination rates.

11-10. 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.

12-11. 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.**

13.12. Land enrolled in this practice may not be enrolled in another state cover crop practice.

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

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Triticale	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) Daikon (forage or tillage) radish or	6 lb./ acre
c) canola or rape	4 lbs./acre
Daikon (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

8C

† - 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.

15.14. 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.

16.15. 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

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

18.17. 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.

19.18. 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. Planting green, planting directly into the growing cover crop prior to termination, is allowed.

16C

C. Rate(s)

1. Districts should not issue payment if a good stand and good growth of winter cover is not obtained before December 15 and maintained through March 14.

1.2. The VACS payment rates per acre for pure stands of Rye are below. Participants may also be eligible for the late kill down incentive.

Edit to match SL-8M requirement

	<u>Rate</u>
Early <u>Pure</u> Rye	<u>\$4055.00/acre</u>
Standard <u>Pure</u> Rye	<u>\$2530.00/acre</u>

6C

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. The VACS payment rates per acre for pure stands of Winter Triticale are below. Participants may also be eligible for the late kill down incentive.

	<u>Rate</u>
<u>Early Pure Winter Triticale</u>	<u>\$50.00/acre</u>
<u>Standard Pure Winter Triticale</u>	<u>\$25.00/acre</u>

8C

2.3. The VACS payment rates 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 45.00/acre
Standard	\$20.00/acre

6C

3.4. 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).

4.5. 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 **\$10.00 per acre** bonus.

Planting green, planting directly into the growing cover crop prior to termination, is allowed.

16C

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 Virginia Agricultural Best Management Practices Cost-Share Program's Protective Cover for Specialty Crops option which are applicable to all contracts entered into with respect to that practice.

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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 planting must be 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 with	1 bu./ac.
a) legume† or	10 lbs./acre
b) forage radish or	6 lb./ acre
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. A VACS payment rate of **\$40.00 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 Virginia Agricultural Best Management Practices Cost-Share Program's~~ Harvestable Cover Crop option which are applicable to all contracts entered into with respect to that practice.

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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, 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 Nitrogen 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.

Edit to remove language unintentionally brought in when building WFA-CC spec.

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.
15. For cover crop that is harvested for seed or grain only, leaving all remaining straw and residue on the field, a higher incentive rate is available. The seed or grain may be harvested after March 14, all remaining cover crop residue (including straw) must be left on the field for conservation. Straw cannot be cut and baled.

C. Rate(s)

1. A VACS payment rate of **\$20 per acre** is available for cover crop that is harvested for seed/grain and straw, remaining residue may be tilled under. 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.
2. A VACS payment rate of **\$30 per acre** is available for cover crop that is harvested for seed/grain ONLY, all remaining residue must remain on the field (straw cannot be baled). 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.

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-Virginia Agricultural Best Management Practices Cost-Share Program's Legume Based Cover Crop option which are applicable to all contracts entered into with respect to that practice.

Edit to
match
current
language

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. A VACS payment rate of **\$45.00 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.

Revised April ~~2023~~2024

WFA-CC VACS Payment Rate Worksheet

Component	Rate per Acre	Participating Acres
Core WFA-CC Base Payment*	\$4.00/acre	
Standard Cover Crop		
Early Pure Rye	\$90.00/acre	
Standard Pure Rye	\$60.00/acre	
<u>Early Pure Winter Triticale</u>	<u>\$80.00/acre</u>	8C
<u>Standard Pure Winter Triticale</u>	<u>\$50.00/acre</u>	
Early — Listed Small Grains, Brassicas, and/or Mixtures	\$70.00/acre	
Standard — Listed Small Grains, Brassicas, and/or Mixtures	\$40.00/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.	\$10.00/acre	
Cover Crop with Fall Application of Manure		
Early Pure Rye	<u>\$4055.00/acre</u>	6C
Standard Pure Rye	<u>\$2530.00/acre</u>	
<u>Early Pure Winter Triticale</u>	<u>\$50.00/acre</u>	8C
<u>Standard Pure Winter Triticale</u>	<u>\$25.00/acre</u>	
Early - Listed Small Grains, Brassicas, and/or Mixtures	<u>\$3245.00/acre</u>	6C
Standard - Listed Small Grains, Brassicas, and/or Mixtures	\$20.00/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.	\$10.00/acre	
Protective Cover for Specialty Crops	\$40.00/acre	
Harvestable Cover Crop		
Grain/seed and straw harvested	\$20.00/acre	
Grain/seed only harvested, remaining residue left on field	\$30.00/acre	
Legume Cover Crop	\$45.00/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
VACS Program Specification for No. WFA-NM

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 **Grain Sorghum, and/or Cotton at the 6-Leaf Stage or at Least 15" in Height and/or Grain Sorghum at the 5-Leaf Stage or at Least 12" 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;
- NM-6 Manure Injection

UN-C

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, with the exception of unimproved pasture acres. Unimproved pasture acres (pasture acres that do not receive nutrient management or nutrient applications) may be excluded from the tract within the Nutrient Management Plan.

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, highly managed hay, and pasture as applicable.
- 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 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).
- ~~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.~~

19C

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, NM-6.

C. Rates

VACS payment 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 VACS payment rate is **\$6.00 per acre** for all eligible acres on a Tract, including cropland, highly managed hayland, and/or

pasture; 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 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. Unimproved pasture acres are not eligible for the Core Nutrient Management Requirement incentive.

2. **In-Furrow OR Banded (2" x 2") Application of Nitrogen and/or Phosphorus:**

- i. A VACS 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 VACS 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, and/or Grain Sorghum, and/or Cotton:** A VACS payment rate of **\$2.50 per acre** is available for the first sidedress application or injection, based on the contracted sidedress application acreage.

UN-C

4. **Second Topdress Application of Nitrogen on Small Grain:** A VACS 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 VACS 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 VACS payment rate of **\$5.00 per acre**, is available for the acres receiving a **third topdress application of nitrogen** on small grains.
- iii. A VACS 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 VACS 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.

7. **Manure Injection:** A VACS payment rate of **\$40.00 per acre** is available for the acres receiving manure injection on row crops, small grains, highly managed hayland, or pasture.

8. **Soil PSNT and/or Fall Soil Nitrate Test (as seasonally appropriate):** Costs for PSNT and/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 **\$12.00 per sample, up to one PSNT per field**. Payment ~~for PSNT~~ will be made only for those PSNT or Fall Soil Nitrate tests that are submitted for laboratory analysis. The reimbursement flat rate can only be utilized once per sample. PSNT or Fall Soil Nitrate Test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

13C

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 Virginia Agricultural Best Management Practices Cost-Share Program'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.

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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:** A VACS 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:** A VACS 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, ~~and/or~~ Grain Sorghum, and/or Cotton

UN-C

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current language

This document specifies terms and conditions for the ~~Virginia Department of Conservation and Recreation's Virginia Agricultural Best Management Practices Cost-Share Program's~~ WFA-NM Nitrogen Management Option for the First Sidedress Application of Nitrogen on Corn, ~~and/or~~ Grain Sorghum, ~~and/or~~ Cotton which are applicable to all contracts entered into with respect to this practice.

UN-C

A. Description and Purpose

This practice will encourage the sidedress application of nitrogen (organic OR inorganic) on corn, ~~and/or~~ grain sorghum, and/or cotton. 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: (corn at 15" to 24" tall; grain sorghum at 12" to 18" tall, ~~cotton between first square and first (white) bloom~~).

UN-C

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

2C

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, ~~and/or~~ grain sorghum, and/or cotton 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.

UN-C

2. The total number of corn acres specified by the Nutrient Management Plan to receive manure, or have a high biomass legume cover crop, will determine the maximum acres to qualify for cost-share payment in accordance with the PSNT. Cost-share payment for PSNT will be made only for those PSNT tests that are submitted for laboratory analysis. 2C
 - 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, ~~and/or~~ grain sorghum is at the 5-leaf stage or at least 12 inches in height or cotton is between the first square and first bloom stage. UN-C
6. A minimum of 20 lbs. of inorganic nitrogen per acre must be applied to be considered a sidedress application for the management of nitrogen.
7. Total nitrogen to be applied to the corn, grain sorghum, and/or cotton field must be consistent with the Nutrient Management Plan or determined by using a PSNT (as applicable for corn) consistent with procedures contained in the Nutrient Management Training and Certification Regulations (4VAC50-85 et. seq). UN-C
8. 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 or high biomass legumes only; biosolids are not eligible for payment. 2C
9. This is an annual practice.

C. Rate(s)

1. **First Sidedress Application of Nitrogen on Corn, ~~and/or~~ Grain Sorghum, and/or Cotton.** A VACS 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. UN-C
2. Costs for PSNT sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of **\$12.00 per sample, up to one PSNT per field.** The reimbursement flat rate can only be utilized once per sample. Samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average. 13C

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 Virginia Agricultural Best Management Practices Cost-Share Program's~~ Second Topdress Application of Nitrogen on Small Grain option which are applicable to all contracts entered into with respect to that practice.

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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. Eligibility for this practice is limited to the length of the plan recommending the split nitrogen application.
- ii. The producer must provide a 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 when the application has been contracted out.~~
- iii. 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.
- 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).

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iv.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. 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.~~
- ~~2. The total number of small grain acres specified by the Nutrient Management Plan 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. Cost-share payment for soil nitrate test laboratory analysis will be made only for those soil nitrate tests that are submitted for laboratory analysis.

i. The soil nitrate test must be done prior to small grain planting.

ii. Soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

i.iii. 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.

ii.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.

3. Checks to ensure compliance 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.

3.4. The producer must sign up prior to February 1 and provide written verification (such as a work order or bill) of contracted sidedress application cost (including the soil nitrate test results) to the District within two weeks of the second application and prior to cost-share payment.

4.5. A minimum of 20 lbs. of inorganic nitrogen per acre must be applied to be considered a split application for the management of nitrogen.

5.6. The amount of late winter nitrogen to be applied to the small grain field must be determined by using the criteria contained inconsistent with the Nutrient Management Plan or determined by using a soil nitrate test consistent with procedures contained in the Virginia Nutrient Management Standards and Criteria, revised July 2014.

6. ~~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.~~

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.~~

8.7. Acres enrolled for this component are ineligible to receive payment for the SL-8H or the WFA-CC Cover Crop – Harvestable component.

9.8. This is an annual practice.

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C. Rate(s)

1. **Second Topdress Application of Nitrogen on Small Grain:** A VACS payment rate of **\$2.50 per acre** is available for the second application in the late winter. **If only one late winter application is made, no reimbursement is to be provided.**
2. 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 **\$12.00 per sample**. The reimbursement flat rate can only be utilized once per sample, samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.

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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 Virginia Agricultural Best Management Practices Cost-Share Program'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.

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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), ~~fall soil nitrate tests,~~ 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.

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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) ~~or fall soil nitrate test.~~ ~~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. ~~PSNT or fall soil nitrate test samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.~~
 - 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.

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- 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 6-leaf stage or at least 15 inches in height, grain sorghum is at the 5-leaf stage or at least 12 inches in height, or cotton is between the first square and the first bloom stage.
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. A minimum of 20 lbs. of inorganic nitrogen per acre must be applied to be considered a split or sidedress application for the management of nitrogen.
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, 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 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.
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

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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; and as-applied application map of field) to the District within 45 days of the final nitrogen application and prior to payment.
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. This is an annual practice.
16. *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

1. **Second Sidedress Application of Nitrogen:** A VACS payment rate of **\$5.00 per acre per year** is available for a second sidedress of nitrogen on corn, cotton, or a second topdress application on highly managed hayland (other than alfalfa).
2. **Third Topdress Application of Nitrogen on Small Grains:** A VACS payment rate of **\$5.00 per acre per year** is available for a third topdress application of nitrogen on small grains.
3. **Variable Rate Nitrogen:** A VACS payment rate of **\$7.50 per acre per year** is available for a variable rate or zone application of nitrogen on row crops or small grain.
4. Costs for 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 **\$12.00 per sample**. Payment for PSNT **or fall soil nitrate tests** will be made only for those **PSNT** tests that are submitted for laboratory analysis. The reimbursement flat rate can only be utilized once per sample. PSNT **or fall soil nitrate test** samples should represent a minimum of 7 acres on average and a maximum of 20 acres on average.
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.

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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 Virginia Agricultural Best Management Practices Cost-Share Program'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.

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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 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 \$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 (zones shall be no larger than 20 acres and based upon soil type), grids (grid size shall be 1 to 4 acres), 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.
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 and prior to payment.
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:** A VACS payment rate of **\$7.50 per acre per year** is available for a variable rate application of phosphorous on row crops, small grains or highly managed hayland.
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 Manure Injection:

This document specifies terms and conditions for the ~~Virginia Department of Conservation and Recreation's Virginia Agricultural Best Management Practices Cost-Share Program's~~ manure injection best management practice which are applicable to all contracts entered into with respect to that practice.

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A. Description and Purpose

This practice will encourage manure injection on pasture and cropland, which will reduce nutrient transport to waterways and other environmentally sensitive features. Applications must be based upon the Nutrient Management Plan (NMP).

B. Policies and Specifications

1. Definition: Manure injection is the placing of manure below the surface of the ground using direct manure injection equipment as determined by the Soil and Water Conservation District.
2. Eligibility:
 - i. This practice is limited to applicants with a current Nutrient Management Plan on file with the District before manure injection application payment is made.
 - ii. Application rates of manure shall be consistent with NMP recommendations.
 - iii. Only cropland, highly managed hayland, and/or pasture owned or rented by the applicant is eligible.
 - iv. Applicants must use no-till planting methods that follow NRCS defined no-till management on all fields receiving manure injection application.
 - v. Applicants must provide written verification (such as a work order or bill) to the District within 30 days of the injection application. Invoice/work order or bill must indicate:
 - a. Fields and acreages injected
 - b. Application rates
 - c. Type of injection equipment used
 - d. Person applying manure (contractor, etc.)
 - vi. 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. The maximum acres eligible for the manure injection shall not exceed the acres specified in the Nutrient Management Plan.
4. 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.
5. 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.
6. Participants may receive cost-share for multiple injections on the same acres in the same program year (e.g. fall and spring), consistent with the Nutrient Management Plan and other requirements of this specification.

C. Rate(s)

1. A VACS payment rate of \$40 per acre is available.
2. Eligible equipment purchased for Manure Injection may qualify for a state tax credit through the Virginia Equipment Tax Credit Program.

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 2023³⁴

WFA - NM VACS Payment 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	
Manure Injection	\$40.00/acre	
PSNT Laboratory Analysis, one sample per field	\$12.00/sample	
<u>Fall Soil Nitrate Test</u>	<u>\$12.00/sample</u>	

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MATRIX OF DCR INTERNAL RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	DCR Recommendations	DCR Supports	FY2025/2026
1I		Add lifespan guidance to all CCI specifications for both state and federally funded projects. Consider revisiting the 2019 DCR and USDA decision that restricts eligibility for practices that received only federal funds. Under current guidance, we are missing out on being able to capture and credit on these federally funded conservation efforts. Furthermore, it is not fair or equitable to those farmers whose practices received only federal funds.	DCR supports this change and with USDA partners open to it, recommends that the 2024 TAC develop updated guidance regarding practice lifespans for CCI specifications.		
4I		Edit wording for consistency across annual agronomic practice specs that allow cost share OR tax credit, to match existing language in SL-8B, SL-8H, SL-8M, NM-6, NM-7.	Update Rates section of applicable practices (SL-8, SL-8A, NM-3C, NM-4, NM-5N, NM-5P, WQ-4) to include the same wording found in existing specs identified in the suggestion. This change is wording only and does not affect how practices are implemented. <i>C. Rates</i> <i>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. <u>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></i>		2025

Changes to cost-share practice specifications will be applied to corresponding voluntary specifications.

MATRIX OF DEFERRED DCR INTERNAL RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring

MATRIX OF TABLED DCR INTERNAL RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
2I		NRCS piggybacks are paid based on the VACS percentage payment rate. For example on an animal waste, the combination of EQIP and VACS funding cannot exceed 75%. However, this is based on the District's cost list rather than NRCS's. Recommend using this same method to calculate CREP payment. This would address the barrier to participation created by the low USDA cost list. If nothing is done about the CREP cost list, it will end up being better to do an SL-6W/FR-3 than CREP. Or just not plant trees at all.	DCR and Districts have brought this issue to FSA's attention and FSA has indicated their intention to review their cost list and revisit it more frequently in the future.
3I		For cover crop practices that allow manure, consider less restrictive language on application of the manure such as tying manure application just to the nutrient management plan.	Ongoing internal discussion/review of biosolids and manure application restrictions has generated suggestions that will be made to the TAC in 2024.

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.

5. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field 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).
6. 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.
7. 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.
8. 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.
9. The participant **must** sign up for this practice before April 1st of each year that the practice will be utilized.
10. Fields that have received applications of biosolids within the previous 24 months are not eligible.

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. 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. A VACS payment rate of ~~75% of the phosphorus 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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.

B. Policies and Specifications

1. Eligibility:
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, small grains, 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 planting must be certified no later than November 30. A good stand and growth of vegetative 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. A VACS payment rate of \$40 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. 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 2024⁴³

Name of Practice:
PROTECTIVE COVER FOR AGRICULTURAL CROPLAND
VACS Program Specification for No. SL-8A

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Protective Cover for Agricultural Cropland best management practice that 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 agricultural cropland when it is not being used after harvest of a crop, after harvest of a specialty crop, or in situations due to an unforeseen circumstance or natural disaster. Unforeseen circumstances or natural disasters could include flooded fields, fire, failed crops, or damage by hail, tornadoes, hurricanes, etc. Cost-share or tax credit are provided to establish vegetative cover on agricultural cropland.

The purpose is to reduce wind and water erosion, thus improving water quality.

B. Policies and Specifications

1. Eligibility:

Crop examples for this practice could include, but are not limited to, the following:

- i) Vegetables
- ii) Tobacco
- iii) Turf
- iv) Hemp
- v) Other

- 2. Agricultural croplands after harvest of a crop, failed crop, unforeseen circumstances, or natural disaster are given consideration due to bare sites and highly erodible soil conditions.
- 3. This practice is applicable for Preventative Planting to prevent erosion after crop failures, flood, hail, tornado, and/or hurricane damage, or any other unforeseen circumstance or natural disaster.
- 4. Soil loss rates must be computed for all applications for use in establishing priority considerations.
- 5. A Conservation Plan containing crop rotations is required to calculate soil loss reductions and nutrient management planning. The conservation plan and NMP shall include crop rotations for at least one year post completion of this practice.

6. Payment is provided as a variable rate per acre incentive to encourage proper establishment and to offset a portion of the cost of seed and the seeding operation.
7. The planting must be certified within 45 days after crop harvest or destruction of the crop due to natural disaster or unforeseen circumstances. All seeding must be planted and certified no later than November 15 and no earlier than March 1. A good stand and good growth of cover, achieving 60% or greater cover, must be obtained in sufficient time to protect the area. The stand/vegetative cover, 60% cover or greater, must be maintained for at least 60 days after seeding certification or until the conservation purpose has been served in accordance with NRCS 340, whichever is greater. The vegetative cover shall be left on the land or incorporated.
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 that this practice 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. Manure application may be made in accordance with the Nutrient Management Plan prepared by a Virginia certified Nutrient Management Planner.
10. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained. 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.
11. The cover crop shall not be harvested for seed/grain.
12. Seed type and rates shall be those listed:

Spring 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

Spring 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

Summer Seed Type	Rate
Sorghum Sudangrass	1.0 bu./acre
Pearl Millet	20 lbs./acre
Foxtail Millet	20 lbs./acre
Black Oil Sunflower	5 lbs./acre
Buckwheat	60 lbs./acre
Forage Soybean	60 lbs./acre
Cowpea	50 lbs./ac.
Sunnhemp	20 lbs./acre

Fall 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, Canadian Spring Pea, Woolypod Vetch 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.

13. This practice is subject to NRCS standard 340 Cover Crop, including reference to the Cover Crop Planning Manual 1.0, Virginia Technical Note, Agronomy #10.
14. This practice has a one-program year completion date eligible for carryover (i.e. participant can apply in early part of a calendar year for summer/fall implementation).

C. Rate(s)

1. A one-time VACS payment per acre is available depending on the number of days the cover crop remains on the land after achieving 60% or greater cover, listed below:

Number of Days Maintained	VACS Payment Rate
60-89 Days	\$20.00/Acre
90-119 Days	\$30.00/Acre
120+ Days	\$40.00/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. 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 2024⁴³

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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. 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. A VACS payment rate of \$45 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. 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 ~~2023~~2024

Nitrogen Reduction Form for WQ-4 Certification

District Name:

Printed Applicant's Name:

Applicant's 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 PROGRAMMATIC RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
1P		Revisit participant cap methodology. <i>Recommended by TAC in 2022 as follow-up to the Board directive:</i> The Board directs the AgBMP Technical Advisory Committee to review the methodology associated with the participant cap to determine if there should be additional considerations taken into account such as a sliding scale for acreage under production, the number of counties or Districts a producer is operating in, and any other considerations that the TAC may determine are worthwhile to examine.	The subcommittee does not recommend any changes to the cap methodology for PY25 with the current \$300,000 cap maintained.	Yes	
2P		Base carryover timeline off of final approval date, not program year. Variance projects and WP-4 practices should have a full 48 months due to engineering approval, complex designs, and lack of contractor availability	Update carryover guidelines with instructions that practices that will not be completed by the end of their 4th program year be brought to the attention of DCR's Agricultural Incentives Program Manager by [date TBD by DCR] to be addressed by DCR (AIPM, CDC, Engineering staff) on a case-by-case basis. <u><i>Barring extraordinary circumstances, approved practices not completed by the end of this additional Program Year date will be canceled; no further extension will be granted. If the District believes there are circumstances that merit additional consideration for a practice that will not be complete by the end of the additional Program Year, the practice must be brought to the attention of the Agricultural Incentives Program Manager as soon as possible, no later than May 15th. The AIPM will consult with the District and DCR staff (CDC, Engineering Services) to address any such practices on a case-by-case basis.</i></u>	Yes	PY2025
3P		Change wording in the "Rates" section of SL-1, FR-1 and FR-3 specs from "eligible approved component costs" to "total eligible costs" to reduce the	Make edits in Tracking to remove duplicative entries in coordination with DCR Data Services. PY2024 updates to the Rates section addressed the suggestion about wording changes.	Yes	PY2025

MATRIX OF ADVANCED PROGRAMMATIC RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025/2026
		redundancy in tracking. - As newer staff, it was unclear why there were two entries needed in Tracking to calculate the cost-share payment for certain practices. After speaking with Jen, she told us it was because of how the spec was worded.			

Changes to cost-share practice specifications will be applied to corresponding voluntary specifications.

MATRIX OF TABLED PROGRAMMATIC RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
4P		How should interest be handled for large capital outlay projects? With some large construction practices costing over ~\$50,000 and upwards of +\$200,000, producers are having to finance the projects through loans. Can interest for these projects be considered a cost of the project?	BMP loans are available through DEQ’s loan program with 0% interest which would be the least-cost option for financing. Costs related to interest for a participant who seeks a private loan could be increased due to factors that are unrelated to the water quality goals of the practice.
5P		Proposed that all DCR SWC programs which have the eligibility requirement of having 5 acres of land or larger be changed to the requirement that they have either at least x acres of farmed land or an FSA farm number.	The subcommittee did not feel that using FSA Farm number as an alternative to acreage would effectively address the limitations related to the current acreage requirement. The subcommittee agreed that more discussion and information is needed regarding the practices small operations are seeking, education for smaller operations, and cost-benefit analysis of VACS on small farms.

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
1S	SL-7	Clarify if properties with no water features qualify for SL-7 or not, and if so at what cost-share rate. Current language is unclear and contradictory. B. 1. All fields that receive cost share under this practice must have had all livestock previously excluded or concurrently being excluded from all live streams or live water. Any field that is part of a rotational grazing system is eligible. First sentence limits to only properties with water features. Second sentence implies any field, regardless of water features present or not. Maybe there should be an SL-7a for property with water features and SL-7b for property with no water feature.	Add language to the SL-7: <i>B. Policies and Specifications</i> <i>1. All fields that receive cost share under this practice must have had all livestock previously excluded or concurrently being excluded from all live streams or live water. Any field that is part of a rotational grazing system is eligible.</i> <u><i>Rotational grazing systems without live water previously or concurrently excluded do not qualify for this practice.</i></u>	Yes	2025
2S	FR-1	Change wording of the FR-1 spec describing cost-share rates to be modeled after the FR-3 wording for consistency/ease of understanding the payment rates. FR-1 wording: 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. Suggested revision: The state cost-share rate is 75% of the eligible costs plus an incentive: i. \$100 per acre for a 10-year lifespan. ii. \$150 per acre for a 15-year lifespan. FR-3 wording: The state cost-share rate is 95% of the eligible approved component costs plus an incentive:	Revise FR-1 wording as suggested. <i>C. Rate(s)</i> <i>1. The VACS payment rate is \$100 per acre for a 10-year lifespan, or \$150 per acre for a 15-year lifespan, and 75% of the approved estimated cost or eligible actual cost, whichever is less, plus an incentive:</i> <u><i>i. \$100 per acre for a 10-year lifespan.</i></u> <u><i>ii. \$150 per acre for a 15-year lifespan.</i></u>	Yes	2025

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
		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.			
3S	FR-1, FR-3	Establish a threshold for tree survivability to be used when determining if/when an FR-1 or FR-3 practice has failed and required repayment. Likewise, consider a threshold for tree density to be eligible for the CCI –FRB-1. Currently, this is determined by staff or CDCs, and with no guidance is likely arbitrary.	Suggestion 3S was tabled. Subcommittee recommends addition of clarifying language related to buffer payments to the FR-3 specification: <i>C. Rates</i> 3. Acreage planted into forested buffer is eligible for a buffer payment at the rate of \$80 per acre per year, <u>unless a buffer payment has been received on the same acreage under an SL-6F, SL-6W, or WP-2W being installed concurrently or currently in lifespan.</u> The buffer payment rates shall be provided for a maximum of 15 acres:	Yes	2025
6S	CCI-SL6W	Add to the CCI-SL6W Description and Purpose the statement from the SL-6N/W, “Stream exclusion fencing and an off-stream watering facility are required components of this practice.”	Revise CCI-SL-6W and CCI-SL-6N as suggested. <i>A. Description and Purpose</i> This practice provides protection by fencing along all live streams or live water in a field to prevent stream bank erosion, direct deposition of animal waste and contamination of water from agricultural nonpoint sources of pollution. <u>Stream exclusion fencing and an off-stream watering facility are required components of this practice.</u>	Yes	2025
7S	WP-2A	The high cost of the WP-2A practice and the engineering requirements and permitting process limits landowner participation and discourages	Increase the cost-share rate of the WP-2A practice to 90%, and increase the required WP-2A lifespan to 15 years. <i>B. Policies and Specifications</i>	Yes	2025

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
		SWCD participation in the practice. To increase the use of the streambank stabilization BMP: Increase the cost share rate to 90%. To address the engineering requirement – Can we provide cost share on the design on the practice if we use a private engineering service? How can the permitting process be streamlined? Would it possible to establish a special project to promote streambank stabilization BMPs to reduce sediment and improve water quality. The special project could provide increase cost share rates and provide assistance with engineering and permitting. The project could: Develop a Standard design based on size of the watershed Practices to include - Toe protection – Rock or Coconut logs - Slope the banks to a 3:1 slop - Establish vegetative cover - Plant live stakes	<i>8. All practice components implemented must be maintained for a minimum of five fifteen 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.</i> <i>C. Rates</i> <i>1. The VACS payment rate will not exceed 75% 90% of the approved estimated cost or eligible actual cost, whichever is less.</i>		
8S		Allow people who have a preexisting or concurrent SL-7 contract to receive cost share for implementation of prescribed grazing through the SL-10/SL-10E. This may also be applicable to large SL-6s where a grazing plan is required.	Revise the SL-7 specification to state that the SL-7 does not preclude payments under the SL-10 or NRCS 528: <i>B. Policies and Specifications</i> <i>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,</i>	No. The SL-7 requires implementation of a grazing plan that meets the NRCS 528 Prescribed Grazing standard on all acres in the system. The SL-10 is a practice to implement the 528	

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
			<i>and rotational schedules. Districts will monitor for compliance. Participation in the SL-7 practice does not preclude eligibility for payment under the SL-10 Specification or payment under an NRCS 528 Prescribed Grazing contract on the same acreage.</i> Revise the SL-10 to clarify the language regarding NRCS 528 payment: <i>B. Policies and Specifications</i> <i>9. Fields utilizing this practice must not have a NRCS 528 Prescribed Grazing contract on the same fields receiving payment from NRCS for 528 Prescribed Grazing on the same acreage are not eligible for the SL-10 practice.</i>	standard. Paying for SL-10 on acres already enrolled in SL-7 or under contract with NRCS for 528 Prescribed Grazing is therefore “double-dipping”, paying for a practice the participant is already under contract to implement. DCR recommends that in the upcoming TAC cycle the TAC evaluate both the SL-7 and SL-10 specifications and their current implementation to recommend changes, clarification, etc.	
9S	FR-3M	Allow the FR-3M to be used on a completed FR-3. Maintenance is crucial to the success of the practice. This would also make it more attractive to convert a completed grassed buffer project into a forested buffer. There is a lot of interest in that and the barrier is maintenance. Many of those projects	Item 9S was tabled as maintenance is already a required component of the FR-3 when cost-share is issued, but the subcommittee recommends raising the FR-3 incentive rates for hardwoods to better compensate for maintenance costs. <i>C. Rate(s)</i>	Yes	2025

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
		would have been CREP in the first place if it had paid higher.	1. The VACS payment rate is 95% of the approved estimated cost or eligible actual cost, whichever is less, plus an incentive: i. For conifer buffers, \$100 per acre for a 10-year lifespan, OR \$150 per acre for a 15-year lifespan. ii. For hardwood buffers, \$100 <u>\$350</u> per acre for a 10-year lifespan, OR \$250 <u>\$500</u> per acre for a 15-year lifespan.		
12S		Suggestion was withdrawn by submitter prior to subcommittee consideration.			
13S		Suggestion was withdrawn by submitter prior to subcommittee consideration.			
14S		Suggestion was withdrawn by submitter prior to subcommittee consideration.			
15S		Revise SL-6W and SL-6N specs to allow a fence only option (similar to WP-2 suite) as long as there is an existing off stream alternative water system that will be utilized as part of the fence only installation. We often work with farmers that have troughs already that can be utilized but they are required enroll in WP-2W/N practices at a lower cost share rate even though the final system will meet SL-6 standards.	Add “(existing or concurrently installed)” in Description and Purpose of the SL-6W and SL-6N specifications. The Full TAC voted to include the same edit in the SL-6F. A. <i>Description and Purpose</i> <i>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 (existing or concurrently installed) are required components of this practice.</i> B. <i>Policies and Specifications</i> 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 <u>or existing</u> watering facilities. This item will also be addressed as a training item at the next VACS Updates session, and the subcommittee recommends adding an	Yes, with the additional edit to Section B as shown in red.	2025

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
			"information" button to the "Number of Alternative Watering Systems Installed" data field in the Conservation Application Suite to explain how to handle situations with an existing watering system.		
17S		17S.1. Review the SE-1, SE-2, and WP-2A specifications to ensure that the language in the specifications matches the intended use of the practices to meet VACS program goals. 17S.2. Evaluate the use of the word "forestal" in the SE-2 and WP-2A practice specifications. 17S.4. Clarify whether or not extra expenses associated with the installation of "living shorelines" is an eligible component under SE-2 or whether living shorelines should be a separate SE-1. 17S.5. Establish minimum survival rate for living shoreline plantings.	17S.1. SE-1: Update practice Description and Purpose: A. <i>Description and Purpose</i> <i>The purpose of this practice is to offer cost-share assistance to establish improve water quality by establishing a natural and environmentally acceptable fringe buffer of selected marsh grasses to provide toe stabilization on tidal waters.</i> WP-2A: Update practice Description and Purpose: A. <i>Description and Purpose</i> <i>The purpose of this practice is to offer an incentive that will improve water quality by changing land use, providing vegetative stabilization, and/or improving management techniques to more effectively control soil erosion, sedimentation and nutrient loss from surface runoff. to improve water quality</i> 17S.2.: Remove "forestal" from the WP-2A and SE-2 specifications. WP-2A: B. <i>Policies and Specifications</i> 1. <i>Cost-share and tax credits are authorized for:</i> iv. <i>Streambanks bordering only agricultural and forestal lands. Other land, such as recreational, urban and built-up or residential lots are not eligible.</i> SE-2: B. <i>Policies and Specifications</i>	Yes	2025

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
			<i>1. Cost-share and tax credits are authorized for:</i> <i>v. For shorelines bordering only agricultural and forestal lands. Other lands, such as recreational, urban and built-up or residential lots are not eligible.</i> 17S.4.: No changes to language in the SE-2 specification regarding living shorelines. 17S.5.: Adopt the 85% minimum survival rate for the SE-1 and SE-2 specifications with the following language additions: SE-1: <i>B. Policies and Specifications</i> <i>5. All marsh grass species must be planted/transplanted following the guidelines (spacing, depth, etc.) provided by DCR. <u>New vegetation must maintain a cover of 85% or more. Spot treat invasive species to maintain density to less than 5% cover.</u></i> SE-2: <i>B. Policies and Specifications</i> <i>1. Cost-share and tax credits are authorized:</i> <i>iii. For the establishment of vegetation. <u>New vegetation must maintain a cover of 85% or more. Spot treat invasive species to maintain density to less than 5% cover.</u></i>		
20S		Please clarify in the SL-6N and SL-6W practice specifications whether the stream exclusion fence must be permanent.	Add “permanent” to the language in B.6.i. of the SL-6W and SL-6N specifications: <i>B. Policies and Specifications</i> <i>6. To protect stream banks, state cost-share and tax credit are authorized for:</i>	Yes	2025

MATRIX OF ADVANCED STREAM PROTECTION FORESTRY RECOMMENDATIONS FOR CALENDAR YEAR 2023 (CY23) TAC					
Item #	Ag. BMP	Suggestion to the TAC	TAC Recommendations	DCR Supports	FY2025 /2026
			<i>i. <u>Permanent</u> fencing to restrict stream access in connection with newly developed watering facilities.</i>		

Changes to cost-share practice specifications will be applied to corresponding voluntary specifications.

MATRIX OF DEFERRED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Deferring
5S	SL-6W	Consider creating a variance process to exceed the 15 acre buffer payment cap associated with the SL-6W practice. We recognize the need for a buffer cap, but feel there should be a process by which the DCR Variance Review Committee can evaluate buffers exceeding 15 acres for eligibility of additional buffer payment.	Consensus could not be reached in either direction. Deferred by default.
10S		Allow the use of Timeless Fence for the SL-6 and WP-2 practices, according to manufacturer's specifications.	Timeless Fence does not meet NRCS Fence standard 382. Subcommittee drafted a letter that will be provided to NRCS to inquire about making an allowance for the proprietary brace assemblies under the 382 Materials & Construction Specifications.
17S.3.		17S.3. Clarify that the SE-2 and WP-2A are intended to address acute erosion of streambanks/shorelines, not natural or geologic time-scale erosion.	Consensus could not be reached in either direction. Deferred by default.
21S		Shade is an issue that producers often face when considering an SL-6W, SL-6N. As a part of the eligible components of an SL-6W, SL-6N, and an SL-7. Consider for cost share or tax credit. Portable shade structures for intensive rotational grazers should also be an eligible component. These structures are meant to be moved as often as the cattle. This suggestion was deferred by the subcommittee in 2022.	NRCS in Virginia has not adopted the Livestock Shelter Structure standard 576. Subcommittee drafted a letter that will be provided to NRCS, asking them to reevaluate adopting the 576 Livestock Shelter Structure in Virginia.

MATRIX OF TABLED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
3S	FR-1, FR-3	Establish a threshold for tree survivability to be used when determining if/when an FR-1 or FR-3 practice has failed and required repayment. Likewise, consider a threshold for tree density to be eligible for the CCI –FRB-1. Currently, this is determined by staff or CDCs, and with no guidance is likely arbitrary.	Virginia Department of Forestry is the technical authority and should be relied on to make these determinations. Handle as a training item for SWCD staff.
4S	WP-1	Consider adding 342-Critical Area Planting to the WP-1 specification as seeding is an eligible component of the practice.	The VA-706 Seeding construction specification is included with every construction practice, and adding 342-Critical Area Planting to the list of applicable standards may create confusion over whether a 342 Critical Area Planting can be a stand-alone component under the WP-1. This will be handled as a training item.
9S	FR-3M	Allow the FR-3M to be used on a completed FR-3. Maintenance is crucial to the success of the practice. This would also make it more attractive to convert a completed grassed buffer project into a forested buffer. There is a lot of interest in that and the barrier is maintenance. Many of those projects would have been CREP in the first place if it had paid higher.	Maintenance is already a required component of the FR-3 when cost-share is issued. The subcommittee proposes raising the incentive rate to better compensate for maintenance costs.
11S		Replace the CCI-FRB-1 and CCI-HRB-1 with one buffer payment which does not distinguish between forested, grassed, or mixed types of buffers. Payment rate should be based on the cost of property taxes and maintenance.	There should be a difference in CCI-FRB-1 and CCI-HRB-1 rates because a forested buffer is worth more credit in the Bay model. It would be difficult to base a payment on property taxes in that property taxes are quite variable across the Commonwealth, and there are no other specifications in the VACS program that are based on property tax rates.
16S	SL-10	SL-10 modification: a. Require Nutrient Management Plan b. Increase rate to \$100/acre with a stipulation that soil pH must be addressed (spreading lime) on pasturelands under SL-10. Many producers apply fertilizer before addressing soil pH, this stipulation would further support Section B. #2. in the current SL-10 spec.	a. Concerns with enough NM planners to get plans written; SL-10 was intended to be easier to get into to encourage participation. b. pH and fertilizer are already required to be addressed per language in the SL-10 specification

MATRIX OF TABLED STREAM PROTECTION FORESTRY RECOMMENDATIONS			
Item #	Ag. BMP	Suggestion to the TAC	Reason for Tabling
18S		The SL-6N and SL-6W practice specifications include 575 Trails and Walkways in the applicable NRCS standards, but the VACS specifications do not explain when Trails and Walkways are an eligible component or not an eligible component. Please clarify in the VACS specifications. For example, language may be added to be consistent with the WP-2N and WP-2W practice specifications, which state: "Cost-share and tax credit are not authorized for...hardened travel lanes that are not attached to a crossing or limited access."	Subcommittee recommendation (below) was tabled by the Full TAC. Add the following language in the SL-6N and SL-6W specifications before section B.9. in the current version of the specs: "Hardened animal trails and walkways are eligible in locations where necessary fences create soil disturbance due to livestock traffic."
19S		The SL-7 practice specification includes 575 Trails and Walkways and 578 Stream Crossing in the applicable NRCS standards but the specification does not explain when these components are eligible. Please clarify in the specification.	Subcommittee recommendation (below) was tabled by the full TAC. Strike 578 Stream Crossing from the listing of eligible NRCS standards in the SL-7 specification. Add the following language: "Hardened animal trails and walkways are eligible in locations where necessary fences create soil disturbance due to livestock traffic." Before section B.9. of the current SL-7 specification.

Continuing Conservation Initiative
Name of Practice: STREAM EXCLUSION WITH NARROW WIDTH BUFFER –
MAINTENANCE PRACTICE
VACS Program Specifications for No.
CCI-SL-6N

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Continuous Conservation Initiative Stream Exclusion Maintenance best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides protection by fencing along **all live streams or live water in a field** to prevent stream bank erosion, direct deposition of animal waste and contamination of water from agricultural nonpoint sources of pollution. Stream exclusion fencing and an off-stream watering facility are required components of this practice.

The purpose of this practice is to offer an incentive payment to maintain exclusion fences, water systems and associated components (watering systems [wells, pumps, pressure tanks, pipelines, troughs, spring developments], livestock crossings, and hardened accesses) that together maintain land use change and/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. This practice will maintain existing stream exclusion components to prevent direct deposition of livestock waste and protect stream banks and other water features such as: wetlands, intermittent springs, seeps, ponds connected to streams, sensitive karst features, and gullies adjacent to springs from damage by domestic livestock. While no minimum fencing standards are required, a fence shall exclude livestock from the water feature at all times during the life span of this practice. The stream exclusion fence must be placed a minimum of 10 feet away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.
2. The practice must not be in lifespan from any other conservation program.
3. The maintenance and use of existing water systems (wells, pumps, pressure tanks, pipelines, troughs, pond/stream pickups, and spring developments), stable livestock crossings, and controlled hardened accesses are required.

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

5. The participant is responsible for inspecting and maintaining all fencing, watering systems (wells pumps, pressure tanks, pipelines, troughs, pond/stream pickups, and spring developments), stream crossings and hardened accesses 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.
6. This practice is subject to spot checks from District staff annually for the life of the practice.
7. This practice is eligible for re-enrollment.
8. All practice components implemented must be maintained for a minimum of five years following the calendar year of certification. The lifespan begins on Jan. 1 of the calendar year following the calendar year of certification of completion. By accepting a cost-share payment 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.

C. Rate(s)

The VACS payment rate is a single payment of \$0.75 per linear foot of stream bank or water feature protected, as well as \$250 per trough, \$500 per stream crossing, and \$1,000 per water system. Payment will be made after a field visit by District staff documents all components are functioning as intended and any needed maintenance has been addressed.

The payment for the stream bank or water feature excluded will not include any area where livestock have access (i.e. hardened crossings).

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 ~~2023~~2024

Continuing Conservation Initiative
Name of Practice: STREAM EXCLUSION WITH WIDE WIDTH BUFFER
– MAINTENANCE PRACTICE
VACS Program Specifications for No.
CCI-SL-6W

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Continuous Conservation Initiative Stream Exclusion Maintenance best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides protection by fencing along **all live streams or live water in a field** to prevent stream bank erosion, direct deposition of animal waste and contamination of water from agricultural nonpoint sources of pollution. Stream exclusion fencing and an off-stream watering facility are required components of this practice.

The purpose of this practice is to offer an incentive payment to maintain exclusion fences, water systems and associated components (watering systems [wells, pumps, pressure tanks, pipelines, troughs, spring developments], livestock crossings, and hardened accesses) that together maintain land use change and/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. This practice will maintain existing stream exclusion components to prevent direct deposition of livestock waste and protect stream banks and other water features such as: wetlands, intermittent springs, seeps, ponds connected to streams, sensitive karst features, and gullies adjacent to springs from damage by domestic livestock. While no minimum fencing standards are required, a fence shall exclude livestock from the water feature at all times during the life span of this practice. The stream exclusion fence must be a minimum of 35 feet away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.
2. The practice must not be in lifespan from any other conservation program.
3. The maintenance and use of existing water systems (wells, pumps, pressure tanks, pipelines, troughs, pond/stream pickups, and spring developments), stable livestock crossings, and controlled hardened accesses are required.

4. Flash grazing (allowing livestock to graze the excluded riparian area) is not allowed as a management alternative during the lifespan of this practice.
5. The participant is responsible for inspecting and maintaining all fencing, watering systems (wells pumps, pressure tanks, pipelines, troughs, pond/stream pickups, and spring developments), stream crossings and hardened accesses 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.
6. This practice is subject to spot checks from District staff annually for the life of the practice.
7. This practice is eligible for re-enrollment.
8. All practice components implemented must be maintained for a minimum of five years following the calendar year of certification. The lifespan begins on Jan. 1 of the calendar year following the calendar year of certification of completion. By accepting a cost-share payment 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.

C. Rate(s)

The VACS payment rate is a single payment of \$1.25 per linear foot of stream bank or water feature protected, as well as \$250 per trough, \$500 per stream crossing, and \$1,000 per water system. Payment will be made after a field visit by District staff documents all components are functioning as intended and any needed maintenance has been addressed.

The payment for the stream bank or water feature excluded will not include any area where livestock have access (i.e. hardened crossings).

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: AFFORESTATION OF CROP, HAY AND PASTURE LAND
VACS Program Specifications for No. FR-1

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.
4. Grazing of livestock is not permitted for the lifespan of the practice.
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.
6. Cost-share payments may not be authorized for land enrolled under the FSA Conservation Reserve Enhancement Program (CREP).
7. Cost-share payments are not authorized for Christmas tree production.

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.
9. This practice is subject to the density determined by a DOF forester in accordance with DOF Form 7.8.
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 VACS payment rate is ~~\$100 per acre for a 10-year lifespan, or \$150 per acre for a 15-year lifespan, and~~ 75% of the approved estimated cost or eligible actual cost, whichever is less, plus an incentive:
 - i. \$100 per acre for a 10-year lifespan.
 - ~~ii.~~ \$150 per acre for a 15-year lifespan.
2. Eligible component costs receiving the 75% VACS payment rate 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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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.
4. Grazing of livestock in the buffer is not permitted for the lifespan of the practice.
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.
6. Cost-share payments may not be authorized for land enrolled under the FSA Conservation Reserve Enhancement Program (CREP).

7. Cost-share payments are not authorized for Christmas tree production.
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.
9. This practice is subject to the density determined by a DOF forester in accordance with DOF Form 7.8.
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.
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 VACS payment rate is 95% of the approved estimated cost or eligible actual cost, whichever is less, 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, ~~\$100-350~~ per acre for a 10 year lifespan, OR ~~\$250-500~~ per acre for a 15 year lifespan.
2. Eligible component costs receiving the 95% VACS payment rate 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, unless a buffer payment has been received on the same acreage under an SL-6F, SL-6W, or WP-2W being installed concurrently or currently in lifespan. The buffer payment rates shall be provided for a maximum of 15 acres:

Lifespan	Buffer payment rate	Buffer payment cap
15 years	\$80 per acre per year	\$18,000 per contract
10 years	\$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 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).

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.
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 ~~2023~~2024

Name of Practice: VEGETATIVE STABILIZATION OF MARSH FRINGE AREAS
VACS Program Specifications for SE-1

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Vegetative Stabilization for Marsh Fringe Areas practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides a protection method for eroding tidal shoreline by establishing a fringe marsh buffer area for shoreline stabilization.

The purpose of this practice is to ~~offer cost-share assistance to establish~~ improve water quality by establishing a natural and environmentally acceptable fringe buffer of selected marsh grasses to provide toe stabilization on tidal waters.

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
 - i. The cost of recommended marsh grass plant species used for shoreline protection (purchase).
 - ii. The cost of transplanting existing recommended marsh grass plant species to a site covered under cost-share application. Donor site must be approved in planting plan by DCR.
 - iii. Labor, fertilizer, and on-site preparation (other than structural work) needed to establish plants.
2. Cost-share is not authorized for general maintenance such as fertilizing, debris removal, or other necessary practices required to maintain an existing marsh.
3. All appropriate local, state, and federal permits must be obtained before cost-share is authorized.
4. All sites receiving cost-share assistance must be on tidal areas and have a written report prepared by DCR.
5. All marsh grass species must be planted/transplanted following the guidelines (spacing, depth, etc.) provided by DCR. New vegetation must maintain a cover of 85% or more. Spot treat invasive species to maintain density to less than 5% cover.
6. All maintenance operations as outlined and required in the written planting plan will be at the applicant's expense.

7. 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)

1. The VACS payment rate will be 50% of the approved estimated cost or eligible actual cost, whichever is less, for all necessary components needed to establish the marsh fringe. This is a one-time incentive payment with no designated life span and not eligible for reapplication if damaged and destroyed.
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 ~~2023~~2024

Name of Practice: SHORELINE STABILIZATION
VACS Program Specification for No. SE-2

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's agricultural Shoreline Stabilization practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Structures and/or vegetative measures will be designed and implemented to stabilize shoreline areas of tidally-influenced streams and rivers, estuaries, bays, and the ocean.

The purpose of this practice is to improve water quality by stabilizing shoreline areas that are being eroded because of waves, boat wake, or overland flow.

B. Policies and Specifications

1. Cost-share and tax credit are authorized:
 - i. For land shaping to achieve a stable slope.
 - ii. For the construction of riprap revetments, sills (riprap or oyster shell bags), groins, break-waters, and gabion systems.
 - iii. For the establishment of vegetation. New vegetation must maintain a cover of 85% or more. Spot treat invasive species to maintain density to less than 5% cover.
 - iv. For engineering and design assistance.
 - v. For shorelines bordering only agricultural ~~and forestal~~ lands. Other lands such as recreational, urban and built-up or residential lots are not eligible.
 - vi. For tidally-influenced waters only.
2. To qualify for cost-share and/or tax credit, all designs must be reviewed by DCR's Shoreline Erosion Advisory Service (SEAS) and meet the intent of SEAS program guidelines.
3. All appropriate local, state, and federal permits must be obtained before cost-share or tax credit is authorized.
4. This is a one-time incentive payment and not eligible for reapplication on the same site. Lifespan requirements can be waived if damaged by acts of nature.
5. Livestock must be excluded from the project area.
6. This practice is subject to the requirements of applicable NRCS Standards including 342 Critical Area Planting, 580 Streambank and Shoreline Protection, 382 Fence, and 612 Tree/Shrub Establishment.

7. All practice components implemented must be maintained for a minimum of 15 years following the calendar year of certification of completion. 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 spot check by the District or SEAS 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 VACS payment will not exceed 75% of the approved estimated cost or eligible actual cost, whichever is less, of all necessary components needed to implement shoreline stabilization.
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.
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 ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 (existing or concurrently installed) 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 or existing 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 VACS payment shall be based on the approved estimated cost or eligible 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 VACS payment rates including the buffer payment rates are:

Minimum fence setback (from the top of streambank)	Lifespan	VACS payment 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.

Revised April 202~~3~~⁴

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 (existing or concurrently installed) 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.
 - 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. Permanent ~~F~~fencing to restrict stream access in connection with newly developed or existing watering facilities. The minimum fence setback from the stream must be either (i) at least 10 feet or (ii) at least 25 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 VACS payment shall be based on the approved estimated cost or eligible actual cost, whichever is less, and shall vary by the minimum fence setback and lifespan of the practice. The VACS payment rates are:

Minimum fence setback (from the top of streambank)	Lifespan	VACS payment rate
25'	15 years	75%
	10 years	70%
10'	15 years	65%
	10 years	60%

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.
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.

Revised April ~~2023~~2024

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

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program'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 (existing or concurrently installed) 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. Permanent Fencing to restrict stream access in connection with newly developed or existing 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 VACS payment shall be based on the approved estimated cost or eligible 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 VACS payment rates including the buffer payment rates are:

Minimum fence setback (from the top of streambank)	Lifespan	VACS payment 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 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 AND GRAZING MANAGEMENT SYSTEMS
VACS Program Specifications for No. SL-7

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Extension of Watering and Grazing Management 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 from all live streams or live water. Any field that is part of a rotational grazing system is eligible. Rotational grazing systems without live water previously or concurrently excluded do not qualify for this practice.
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. Participation in the SL-7 practice does not preclude eligibility for payment under the SL-10 Specification or payment under an NRCS 528 Prescribed Grazing contract on the same acreage.

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 VACS payment shall be based on the approved estimated cost or eligible actual cost, whichever is less, and shall vary by the minimum fence setback and lifespan of the practice. The VACS payment rates are shown in the table below:

Minimum fence setback (from the top of streambank)	Lifespan	VACS payment rate
35'	15 years	80%
	10 years	75%
<35'	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 2023

Name of Practice: GRAZING LAND MANAGEMENT
VACS Program Specification for No. SL-10

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Grazing Land Management best management practice which are applicable to all contracts entered into with respect to this practice.

A. Description and Purpose

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

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

For purposes of this practice, pastures are represented by those lands that have been seeded, usually with introduced species (i.e., tall fescue, legumes) or in some cases native plants (e.g. switchgrass or other native warm season grasses), and which are managed using agronomic practices for livestock.

B. Policies and Specifications

1. All fields that receive cost-share under this practice must be perennial pasture and have had all livestock previously excluded from all surface waters and sink-holes. Any field that is part of a rotational grazing system is eligible. A written Grazing Management Plan and Operation and Maintenance Plan that includes all acres in the grazing system must be prepared and followed in accordance with NRCS Standard 528 Prescribed Grazing.
2. The system developed with this practice must maintain adequate nutrient and pH levels to improve or maintain desired forage species composition, plant vigor, and persistence in accordance with soil test recommendations.
3. Locate infrastructure to facilitate grazing management and manure distribution:
 - i. Manage the type and number of livestock and the length of grazing period based on available forage and allowable utilization targets. Manage livestock rotation to new paddock subdivisions to maintain minimum grazing height recommendations and sufficient rest periods for plant recovery according to NRCS Grazing Heights and Rest Guidelines by Forage Table 1 (attached). Size pasture and subdivisions and manage animal stock densities to minimize grazing periods and maximize manure and urine distribution throughout the pasture.

- ii. Maintain adequate plant cover of at least 60% pasture stand density year round to increase rainfall infiltration and decrease runoff from pasturelands for the lifespan of the practice.
 - iii. Locate feeding areas away from sensitive areas such as wetlands, sink holes, streams/creeks and adjacent drainage swales etc.
 - iv. Manage distribution of nutrients and minimize soil disturbance at hay feeding sites by unrolling hay across the upland landscape throughout the pasture system when soils are well drained or move hay rings periodically.
 - v. Designate a sacrifice lot/paddock to locate livestock for feeding when adequate forage is not available in the pasture system. A sacrifice lot is used during times of drought or during excessively wet soil conditions over the winter feeding season as a place to feed hay and supplements to livestock until pasture conditions are suitable for grazing or feeding without damaging the soil quality or reducing plant cover. A sacrifice lot/paddock should not drain directly into ponds, creeks or other sensitive areas and should not be more than 10% of the total pasture acreage.
 - vi. Must mow pasture as needed to control woody vegetation and encourage vegetative re-growth.
 - vii. Pastures not meeting minimum 60% year round cover criteria shall be replanted in accordance to NRCS standard 512 Pasture and Hay Planting. Replanting will be at the participant's expense.
4. Pastures must be mowed as needed no lower than indicated in NRCS Table 1, Guidelines for Grazing Heights and Rest Periods in order to control woody vegetation and encourage regrowth. Consider wildlife nesting concerns and time accordingly.
 5. Pastures not meeting minimum 60% year round cover criteria should be replanted in accordance to NRCS Standard 512 Pasture and Hay Planting.
 6. Drag pastures at least twice a year to break-up manure piles after livestock are removed from a field to uniformly spread the manure load or manage manure distribution through rotational grazing where livestock are moved to uniformly distribute manure and maximize forage.
 7. The NRCS Pasture Condition Score will be used to establish a benchmark for pasture evaluation and to document pasture condition and progress. This score will be tabulated annually at the same time of the year (during the growing season) as the initial scoring. The Pasture Condition Score should not exceed 35 to be eligible for sign-up. The pasture condition score should increase each year as better pasture management techniques allow for better forage management and increased utilization.

8. State cost share will be provided only one time per field.
9. Fields receiving payment from NRCS for 528 Prescribed Grazing on the same acreage are not eligible for the SL-10 practice~~utilizing this practice must not have a NRCS 528 Prescribed Grazing contract on the same fields.~~
10. This practice is subject to the requirements of NRCS Standards, 382 Fence, 314 Brush Management, 512 Pasture and Hay Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection and 614 Watering Facilities, and 595 Pest Management.
11. Payment will be made after soil test recommendations and the required grazing plan are on file with the District. By accepting payment for this practice, the recipient agrees to maintain the practice for the three-year lifespan beginning Jan. 1 of the calendar year following the calendar year of certification of completion. 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 funds.

C. Rate(s)

The VACS payment rate is a one-time incentive payment of \$75 per 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, and NRCS. 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 ~~2023~~2024

TABLE 1



Grazing Height and Rest Guidelines by Forage

Appropriate grazing and recovery periods allow forages to renew energy reserves, improve plant vigor, maintain or improve plant diversity, and provide long-term persistence of a productive forage stand.

The grazing period should be adjusted based on stage of growth or forage height. Rest period between grazing events will vary in length depending on growing conditions and forage recovery.

Table 1. Guidelines for Grazing Heights and Rest Periods

Forage Species	Height to Begin Grazing (inches)	Height to End Grazing (inches)	Recovery Time (days) ¹
Tall Fescue	6-8	3-4	14-45
Orchardgrass	8-10	4-5	14-45
Bluegrass	4-6	2	14-45
Reed Canarygrass	10	3-4	14-45
Small Grains (Wheat, Rye, Oats, etc.)	8	2-3	7-15
Annual Ryegrass	6-8	3-4	7-15
Alfalfa	10-16	3-4	14-30 ²
Sericea lespedeza	8-10	4-6	14-45
Caucasian Bluestem	8-10	3-4	14-45
Bermudagrass	6	2	7-15
Switchgrass	18-24	9-12	30-45
Eastern Gamagrass	18-24	9-12	30-45
Crabgrass	6-8	2-3	14-21
Pearl Millet	18-20	8-12	10-20
Forage Sorghum	20-30	5-7	10-20
Sorghum Sudan Hybrids	20-24	5-7	10-20
Sudangrass	20-24	5-7	10-20

¹Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.

²Grazing types of alfalfa can sustain with shorter recovery times under optimum growth conditions compared to hay types of alfalfa.

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Name of Practice: STREAMBANK STABILIZATION

VACS Program Specifications for No. WP-2A

This document specifies terms and conditions for the Virginia Agricultural Best Management Practices Cost-Share Program's Streambank Stabilization best management practice which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice promotes protection methods along streams that reduce erosion, sedimentation, and the pollution of water from agricultural non-point sources.

The purpose of this practice is to ~~offer an incentive that will improve water quality by changing~~ land use, provid~~ing~~ vegetative stabilization, ~~and/or~~ or improv~~ing~~ 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 credits are authorized for:
 - i. Vegetative work. This includes temporary seedings as well as permanent herbaceous, woody, or shrub species. Cost-share and tax credits are authorized for riprap when it is used to secure the slope's toe only. Cost-share and tax credits are not authorized for structural measures such as gabions, walls or riprap on side slopes. If needed in conjunction with vegetative work, it must be at the applicant's expense.
 - ii. Grading and shaping of the bank to achieve proper slope and seeding conditions.
 - iii. 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 water. The installation of livestock crossings and controlled hardened accesses are limited to small streams. Where required, permits must be obtained by the applicant from authorities before the practice will be approved.
 - iv. Streambanks bordering only agricultural ~~and forestal~~ lands. Other land, such as recreational, urban and built-up or residential lots are not eligible.
2. Streambank stabilization performed under the practice shall be protected from damage by livestock and equipment. For fencing, the **WP-2 Stream Protection** practice must be used.
3. Cost-share and tax credit are **not** authorized for tidal waters; only freshwater streams are eligible. Cost-share is not authorized for the establishment of marsh or dune stabilization species. All appropriate local, state and federal permits must be obtained before cost-share can be authorized.

4. Consideration must be given to wildlife and environmental issues when designing the practice.
5. Soil loss rates must be computed for all applications for use in establishing priority considerations.
6. This is a one-time incentive and not eligible for reapplication on the same site. Lifespan requirements can be waived if damaged by flooding.
7. This practice is subject to the following NRCS standards on a site specific basis, if utilized: 342 Critical Area Planting, 382 Fence, 472 Use Exclusion, 575 Trails and Walkways, 578 Stream Crossing, 580 Stream bank and Shoreline Protection, and 612 Tree/Shrub Establishment.
8. All practice components implemented must be maintained for a minimum of ~~five~~ fifteen 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 VACS payment will not exceed ~~75~~90% of the approved estimated cost or eligible actual cost, whichever is less.
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 ~~2023~~2024