COMMONWEALTH of VIRGINIA

Program Year 2021
Virginia Agricultural Cost-Share (VACS) BMP Manual

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Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Virginia Department of Conservation and Recreation programs, activities and employment opportunities are available to all people regardless of race, color, religion, sex, age, disability, national origin or political affiliation. An equal opportunity/affirmative action employer.

Guidance Adopted June 3, 2020 (DCR-VSWCB-035)

2021 Virginia Agricultural Cost-share, Tax Credit and CREP BMPs

Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Requires a Conservation Plan	Ag BMP Loan*	CREP
CCI-CNT	Continuous Conservation Initiative Long Term Continuous No-Till Planting System	3/2020	^	X	X			
CCI-FRB-1	Continuing Conservation Initiative Forested Riparian Buffer – Maintenance Practice	3/2020	^	X				
CCI-HRB-1	Continuous Conservation Initiative Herbaceous Riparian Buffer – Maintenance Practice	3/2020	^	X				
CCI-SE-1	Continuing Conservation Initiative Stream Exclusion – Maintenance Practice	4/2020	^	X				
CCI-SL-6N	Continuing Conservation Initiative Stream Exclusion with Narrow Width Buffer – Maintenance Practice	4/2020	^	X				
CCI-SL-6W	Continuing Conservation Initiative Stream Exclusion with Wide Width Buffer – Maintenance Practice	4/2020	^	X				
CCI-WP-2N	Continuing Conservation Initiative Stream Protection with Narrow Width Buffer – Maintenance Practice	4/2020	^	X				
CCI-WP-2W	Continuing Conservation Initiative Stream Protection with Wide Width Buffer – Maintenance Practice	4/2020	^	X				
CP-21	CREP Grass Filter Strip	3/2016				X		X
CP-22	CREP Riparian Forest Buffer	3/2016				X		X
CP-23	CREP Wetland Restoration Rent	3/2016				X		X
CP-29	CREP Wildlife Habitat Buffer	3/2016				X		X
CRFR-3	CREP Woodland Buffer Filter Area	4/2019	X			X		X
CRLF-1	CREP Linear Foot of Streambank Protected	3/2016				X		X
CRSL-6	CREP Stream Exclusion with Grazing Land Management	4/2019	X			X		X
CRWP-2	CREP Stream Protection	4/2019	X			X		X
CRWQ-1	CREP Herbaceous Riparian Buffers	4/2019	X			X		X
CRWQ-6B	CREP Wetland Restoration	4/2019	X			X		X
CRWQ-11	CREP Agricultural Sinkhole Protection	4/2019	X			X		X
FR-1	Afforestation of Crop, Hay and Pasture Land	4/2019	X	X		X		
FR-3	Woodland Buffer Filter Area	4/2019	X	X		X	X	
FR-4	Woodland Erosion Stabilization	3/2017	X	X		X		
NM-1A	Nutrient Management Plan Writing and Revisions	4/2020	%	X				
NM-3C	Sidedress Application of Nitrogen on Corn at the 6-leaf Stage or at least 15” in Height	5/2020	X	X#	X			

Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Requires a Conservation Plan	Ag BMP Loan*	CREP
NM-4	Late Winter Split Application of Nitrogen on Small Grains	5/2020	X	X#	X			
NM-5N	Precision Nutrient Management on Cropland – Nitrogen Application	5/2020	X	X#	X			
NM-5P	Precision Nutrient Management on Cropland – Phosphorus Application	5/2020	X	X#	X			
NM-6	Manure Injection	5/2020	X	X	X			
NM-7	Cover Crop for Managing Liquid or Semi-Solid Manure	5/2020	X	X#	X			
RMP-1	Resource Management Plan Development	4/2020	%	X	X	X		
RMP-2	Resource Management Plan Implementation	4/2020	%	X	X	X		
SE-1	Vegetative Stabilization of Marsh Fringe Areas	3/2016	X	X		X		
SE-2	Shoreline Stabilization	4/2020	X	X		X	X	
SL-1	Long Term Vegetative Cover on Cropland	4/2020	X	X	X	X	X	
SL-3	Stripcropping Systems	4/2020	X	X	X	X		
SL-3B	Buffer Stripcropping	3/2018	X	X	X	X		
SL-4	Terrace Systems	3/2018	X	X	X	X	X	
SL-5	Diversions	3/2016	X	X		X	X	
SL-6A	Small Acreage Grazing System	3/2018	X		X	X		
SL-6B	Alternative Water System	4/2020	X			X	X	
SL-6N	Stream Exclusion with Narrow Width Buffer and Grazing Land Management	4/2020	X	X		X	X	
SL-6W	Stream Exclusion with Wide Width Buffer and Grazing Land Management	4/2020	X	X		X	X	
SL-7	Extension of Watering Systems	4/2020	X	X		X		
SL-8	Protective Cover for Specialty Crops	5/2020	X	X#				
SL-8A	Protective Cover for Agricultural Cropland	5/2020	X	X#	X			
SL-8B	Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management	5/2020	X	X#	X			
SL-8H	Harvestable Cover Crop	5/2020	X	X#	X			
SL-10	Prescribed Grazing Land Management	4/2020		X		X		
SL-11	Permanent Vegetative Cover on Critical Areas	4/2020	X	X		X		
SL-11B	Farm Road, Animal Travel Lane, Heavy Use Area Stabilization	3/2017	X			X	X	
SL-15A	Continuous High Residue Minimal Soil Disturbance Tillage System	5/2020	X	X#	X			
SL-15B	Continuous No-Till Forage Production System	5/2020	X	X#	X			
WP-1	Sediment Retention, Erosion or Water Control Structures	3/2018	X	X		X	X	
WP-2A	Streambank Stabilization	3/2016	X	X		X	X	

Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Requires a Conservation Plan	Ag BMP Loan*	CREP
WP-2B	Stream Crossings & Hardened Access	3/2016	X			X	X	
WP-2C	Stream Channel Stabilization	3/2016	X			X	X	
WP-2N	Stream Protection (Fencing With Narrow Width Buffer)	4/2019	X	X		X	X	
WP-2W	Stream Protection (Fencing With Wide Width Buffer)	4/2020	X	X		X	X	
WP-3	Sod Waterway	4/2020	X	X		X		
WP-4	Animal Waste Control Facilities	4/2020	X	X	X	X	X	
WP-4B	Dairy Loafing Lot Management System	4/2020	X	X	X	X	X	
WP-4C	Composter Facilities	4/2020	X	X	X	X	X	
WP-4E	Animal Waste Structure Pumping Equipment	4/2020	X		X	X	X	
WP-4F	Animal Mortality Incinerator Facilities	4/2020	X	X	X	X	X	
WP-4FP	Feeding Pad	4/2020	X	X	X	X	X	
WP-4LC	Animal Waste Control Facility for Confined Livestock Operations	4/2020	X	X	X	X	X	
WP-4LL	Loafing Lot Management System with Manure Management (Excluding Bovine Dairy)	4/2020	X	X	X	X	X	
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage	4/2020	X	X	X	X	X	
WP-5	Stormwater Retention Pond	3/2016	X			X	X	
WP-6	Agricultural Chemical & Fertilizer Handling Facility	4/2020	X	X	X	X	X	
WP-7	Surface Water Runoff Impoundment for Water Quality	3/2017	X			X	X	
WP-8	Relocation of Confined Feeding Operations From Environmentally Sensitive Areas	3/2018	X		X	X	X	
WQ-1	Grass Filter Strips	4/2019	X	X	X	X		
WQ-4	Legume Based Cover Crop	5/2020	X	X#	X			
WQ-5	Water Table Control Structures	3/2016	X	X		X	X	
WQ-6	Constructed Wetlands	4/2019	X		@	X	X	
WQ-6B	Wetland Restoration	3/2016	X			X	X	
WQ-7	Irrigation Water Recycling System	3/2017	X			X	X	
WQ-8	Fuel Storage Treatment	3/2016	X			X	X	
WQ-9	Capping/Plugging of Abandoned Wells	3/2016	X			X		
WQ-10	Integrated Pest Management	3/2017	X			X		
WQ-11	Agricultural Sinkhole Protection	4/2020	X	X		X		
WQ-12	Roof Runoff Management System	4/2019	X	X		X	X	

The Agricultural BMPs below are funded and administered by the Department of Environmental Quality (DEQ) Total Maximum Daily Load (TDML) Program. Additional information can be found at: Implementation Cost Share Residential and Agricultural BMP Guidelines.								
Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Requires a Conservation Plan	Ag BMP Loan*	CREP
SL-6AT	Small Acreage Grazing System (TMDL)	6/2019	X			X	X	
EM-1T	Small Scale Manure Composting for Equine Operations – Static Systems	2/2018					X	
EM-1AT	Small Scale Manure Composting for Equine Operations – Arated Systems	2/2018					X	

^ This BMP is a continuation or extension of an existing practice established by the applicant. The applicant was eligible to receive a tax credit for 25% of the first $70,000 of the expense of the existing, previously installed BMP for the taxable year in which the practice was completed, pursuant to section 58.1-339.3 (Code of Virginia).

% This practice does not meet the definition of a tax credit-eligible Agricultural BMP as defined in section 58.1-339.3 (5.B.) (Code of Virginia), as the cost share rate is provided to acquire a Virginia certified professional nutrient management planner to generate a plan, and not to implement a conservation practice on the ground.

* The "X" in the "Ag BMP Loan" column denotes BMPs that are eligible for a loan from the Virginia Water Facilities Revolving Fund (VWFRF) administered by the Department of Environmental Quality.

The participant must certify in writing that he will not utilize a Tax Credit to receive Cost-Share funding.

@ Only if wetland is constructed to treat animal waste runoff

Note: Sections 58.1-339.3 and 58.1-439.5 of the Code of Virginia require a participant to have a soil conservation plan approved by the local Soil and Water Conservation District in order to be eligible to receive an agricultural best management practices tax credit, regardless of the type of implemented practice.

Revised May 2020

2021 Cost-Share Program Schedule

June/July 2020	CDCs inform Districts of program allocations.
July 1, 2020	2021 Cost-Share Program begins. Districts may begin approving practices after Secondary Considerations have been approved.
July 2020	The Agricultural BMP Technical Advisory Committee (TAC) and its Subcommittees begin meeting periodically through the end of the calendar year.
September 30, 2020	**End of First Quarter** Quarterly reports are due to CDCs by 10/15/2020, including requests for disbursements in the second quarter.
December 31, 2020	**End of Second Quarter** Quarterly reports are due to CDCs by 1/15/2021, including requests for disbursements in the third quarter.
March 2021	Matrix of TAC and DCR-suggested recommendations for Fiscal Year 2022 sent to Virginia Soil and Water Conservation Board for review and potential approval.
March 31, 2021	**End of Third Quarter** Quarterly reports are due to CDCs by 4/15/2021, including requests for disbursements in the fourth quarter.
April 2021	Draft FY2022 VACS Manual sent to Virginia Soil and Water Conservation Board for review and potential approval.
May 2021	Districts review, update and submit Secondary Considerations to DCR for approval by June 30, 2021.
June 30, 2021	**End of Program Year** All applications entered into the BMP Tracking Program are to be identified as; (1) Complete, **or** (2) Canceled, **or** (3) SL-6 Pending Lack of Funding, **or** (4) Carryover with an approved carryover date (only if practice is on the approved list and under construction). All completed projects must be paid by June 30, 2021. Final 2021 Cost-Share Program quarterly reports are due to CDCs by 7/15/2021.

NOTE: All BMP payment data for a quarter must be entered into the Tracking Program by the 15th of the next month in order to qualify for a quarterly disbursement. Tracking Program reports will be run by the DCR CDC on the 18th of the month.

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CCI-HRB-1	Herbaceous Riparian Buffer – Maintenance Practice	CCI-HRB-1-1
CCI-SE-1	Stream Exclusion – Maintenance Practice	CCI-SE-1
CCI-SL-6N	Stream Exclusion with Narrow Width Buffer – Maintenance Practice	CCI-SL-6N-1
CCI-SL-6W	Stream Exclusion with Wide Width Buffer – Maintenance Practice	CCI-SL-6W-1
CCI-WP-2N	Stream Protection with Narrow Width Buffer – Maintenance Practice	CCI-WP-2N-1
CCI-WP-2W	Stream Protection with Wide Width Buffer – Maintenance Practice	CCI-WP-2W-1
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NM-1A	Nutrient Management Plan Writing and Revisions	NM-1A-1
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CRLF-1	CREP Linear Foot of Streambank Protected	CRLF-1-1
CRSL-6	CREP Stream Exclusion with Grazing Land Management	CRSL-6-1
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Revised June 2020

VIRGINIA SOIL AND WATER CONSERVATION BOARD POLICY ON SOIL AND WATER CONSERVATION DISTRICT ADMINISTRATION AND OPERATIONS FUNDING ALLOCATIONS FOR FISCAL YEAR 2021

(Approved June 3, 2020)

1. Purpose:

This Policy document specifies the Virginia Soil and Water Conservation Board's (Board) process by which funds are to be allocated by the Department of Conservation and Recreation (Department) to the Commonwealth's 47 local Soil and Water Conservation Districts (Districts) for administrative and operational support in Fiscal Year 2021. A separate Policy shall govern the Fiscal Year 2021 distribution of cost-share and technical assistance funds to Districts.

2. Authority:

This funding distribution Policy is required in accordance with Item 373 A.1. of Chapter 1289 of the 2020 Acts of Assembly (the 2020 Appropriation Act) that specifies that the "funds shall be distributed upon approval by the Virginia Soil and Water Conservation Board to the districts in accordance with the Board's established financial allocation policy". Funds subject to this Policy are set out in Sub-program 50320 (Financial Assistance to Soil and Water Conservation Districts) and are guided by the following specific budget provisions within Item 373:

> A.1. Out of the amounts appropriated for Financial Assistance to Virginia Soil and Water Conservation Districts, $12,141,091 the first year and $12,141,091 the second year from the general fund shall be provided to soil and water conservation districts for administrative and operational support as well as base funding for technical assistance. These funds shall be distributed upon approval by the Virginia Soil and Water Conservation Board to the districts in accordance with the Board's established financial allocation policy. These amounts shall be in addition to any other funding provided to the districts for technical assistance pursuant to subsections B. and C. of this Item for appropriations in excess of $35,000,000. Of this amount, $6,209,091 the first year and $6,209,091 the second year from the general fund shall be distributed to the districts for core administrative and operational expenses (personnel, training, travel, rent, utilities, office support, and equipment) based on identified budget projections and in accordance with the Board's financial allocation policy; $4,550,000 the first year and $4,550,000 the second year for base technical assistance support; $312,000 the first year and $312,000 the second year from the general fund shall be distributed at a rate of $3,000 per dam for maintenance; $500,000 the first year and $500,000 the second year from the general fund for small dam repairs of known or suspected deficiencies; $400,000 the first year and $400,000 the second year from the general fund for the purchase and installation of remote monitoring equipment for District-owned high and significant hazard dams; and $170,000 the first year

and $170,000 the second year to the department to provide district support in accordance with Board policy, including, but not limited to, services related to auditing, bonding, contracts, and training. The amount appropriated for small dam repairs of known or suspected deficiencies and the purchase and installation of remote monitoring equipment is authorized for transfer to the Soil and Water Conservation District Dam Maintenance, Repair, and Rehabilitation Fund.

In addition to the authorities set out in the 2020 Appropriation Act, the *Code of Virginia* contains the following Board duties applicable to this Policy:

§ 10.1-505. Duties of Board.

In addition to other duties and powers conferred upon the Board, it shall have the following duties and powers:

1. To give or loan appropriate financial and other assistance to district directors in carrying out any of their powers and programs. …

3. To oversee the programs of the districts. ….

9. To provide for the conservation of soil and water resources, control and prevention of soil erosion, flood water and sediment damages thereby preserving the natural resources of the Commonwealth. …

11. To provide, from such funds appropriated for districts, financial assistance for the administrative, operational and technical support of districts.

3. Definitions:

"District" or "local soil and water conservation district" or "SWCD" means a political subdivision of the Commonwealth organized in accordance with the provisions of the Code of Virginia contained in Chapter 5 of Title 10.1 (§ 10.1-500 et seq.) and with the powers and duties set out in Chapters 1, 5, 6, and 21.1 of Title 10.1 of the *Code of Virginia*.

"FTE" means a full time equivalent position.

"Total Maximum Daily Load" or "TMDL" means a calculation of a maximum amount of a pollutant that a waterbody can receive and still meet water quality standards.

4. Allocation Process:

For Fiscal Year 2021, $7,191,091 (Item 373 A.1. - see Part 2, Authority) is available for allocations to the Districts for administrative and operational support, including funding for small dam repairs, and to the Department for the administration of contracts in support of the Districts. Those allocations are set out in Attachment A and are developed in accordance with Part 4. An additional $400,000 has been provided for the purchase and installation of remote monitoring equipment for District-owned high and significant hazard dams (Item 373 A.1.).

SWCD (Column 1)

For Fiscal Year 2021, the 47 listed Districts will be eligible for administration and operations funding allocations.

ADMINISTRATION AND OPERATIONS CORE FUNDING (Column 2):

For the purposes of the Fiscal Year 2021 Policy allocations, it is recognized that no Districts are at levels sufficient to provide baseline core services and that District's desire the minimization of changes to current District allocations (maintain level support). Accordingly, the Fiscal Year 2021 allocations for core administrative and operational expenses (personnel, training, travel, rent, utilities, office support, and equipment) remain unchanged from those allocated in Fiscal Year 2020. The Board, Department, and Districts will continue to utilize information from the continuing Budget Template Exercise to seek additional Administration and Operations funding from the Administration and General Assembly. However, please note that Districts shall ensure that funds provided in Fiscal Year 2021 are utilized to support and deliver the Virginia Agricultural Cost-Share Program and other *Code of Virginia* specified responsibilities. No funds shall be obligated or expended for the design, implementation, or installation of BMPs unless they are fully consistent with BMP specifications that have been formally approved by the Virginia Soil and Water Conservation Board, the Department, the Department of Environmental Quality or the Natural Resources Conservation Service.

Of the amounts allocated for core administrative and operational expenses, an annual allowance of $500 per Director is provided for travel expense reimbursement and training pursuant to § 10.1-531 of the *Code of Virginia*. Amounts per District range between $2,500 (5 Directors) to $6,000 per District (12 Directors). Funding extends to elected Directors, at-large appointed Directors, and Extension Agent appointments but does not include Associate Directors, Honorary Directors, Emeritus Directors or other District personnel or volunteers. No fiscal adjustments (reductions) are made when an Extension Agent serves multiple Districts. The number of District Directors in each District is calculated in accordance with § 10.1-515 of the *Code of Virginia*. Information on the number of jurisdictions in each District can be found in the last column of Attachment A (Column 9).

DAM MAINTENANCE ($3000/dam) (Column 3)

For Fiscal Year2021, $312,000 is provided for out of the amounts appropriated in Item 373 A.1. of the 2020 Appropriation Act (Sub-program 50320) for the maintenance of the Districts' 104 impounding structures. This represents a total of $3,000 per dam.

 # OF DAMS (Column 4)

This column indicates the distribution of the Districts' 104 impounding structures within the 12 Districts that have dams.

SUBTOTAL ADMINISTRATION AND OPERATIONS ALLOCATIONS (Column 5)

This column represents the total amounts the specified District will receive during Fiscal Year 2021 to support the administration and operations within the District (Sum of Columns 2 and 3). The District may also be eligible for additional allocations from the Small Dam Repair funds (Column 6). For Fiscal Year 2021 this total amount (the Sum of Columns 2 and 3) is $6,521,091.

SMALL DAM REPAIR Item 357 A.1. (Column 6)

For Fiscal Year 2021, $500,000 for small dam repairs is appropriated in Item 373 A.1. of the 2020 Appropriation Act (Sub-program 50320) for the maintenance and small repairs to the Districts' 104 impounding structures. Purchasing procedures consistent with the Virginia Public Procurement Act shall be followed. To be eligible for the funding, Districts shall apply for consideration in accordance with guidance issued by the Department's District Engineering Services Unit in the Division of Soil and Water Conservation. Once awards are determined, at the District's request, the Department is authorized to provide an initial drawdown of the approved

funding amount based on actual contract needs. Final disbursement of grant funds shall be disbursed on a reimbursement basis only. A project close-out letter will be issued by the District Dam Engineer once all required documentation has been reviewed and approved. The project close-out letter will authorize the final disbursement of project funds as supported by the financial documentation provided, up to a total amount not to exceed the amount of the award. Upon the final disbursement of project funds, any unexpended funds shall be returned to the Soil and Water Conservation District Dam Maintenance, Repair, and Rehabilitation Fund, shall be unobligated, and shall be available for subsequent project awards. The Dam Maintenance, Repair, and Rehabilitation Fund Grant Agreement for each award contains additional procedural and compliance details.

DCR MANAGED FUNDS FOR DISTRICT SUPPORT (Column 7)

An amount of $170,000 is set aside to provide for support of District requirements and responsibilities set out in Chapter 5 of Title 10.1 of the Code of Virginia including, but not limited to, those relating to audits in § 10.1-535 of the Code as follows:

Audits of Districts ($104,000): 23 audits (at up to $4,100 per audit) will be budgeted for during Fiscal Year 2021 for the Fiscal Year 2019 and 2020 period. These funds shall be used for any additional audit approved by the Audit Subcommittee of the Board and for which the Subcommittee directs the Department to pay and for any audit needed for a District if they exceed $750,000 in expenditures of federal funds in a one-year period. However, should it be found that audit expenses are less than that budgeted, the balance of these funds may be transferred to address **Other Support Expenses**.

> **§ 10.1-535. Bonds of officers and employees; records and accounts.**
> The district directors shall (i) provide for the execution of surety bonds for all employees and officers who shall be entrusted with funds or property; (ii) provide for the keeping of a full and accurate record of all proceedings and of all resolutions, regulations, and orders issued or adopted; and (iii) provide for an annual audit of the accounts of receipts and disbursements by the Auditor of Public Accounts or a certified public accountant approved by him.

Virginia Association of Soil and Water Conservation District (Association) Contract ($46,700): For Fiscal Year 2021, $46,700 has been set aside to contract with the Association to perform duties that generally include, but are not limited to, the following:

a. Administrative - ($4,500)
   - Communications (Estimated Cost $3,000)
     This item supports maintaining and updating an Association website; maintaining a District e-mail list serve; conducting conference calls relating to board meetings, committee meetings, and other partner meetings; and conducting appropriate mailings.
   - Accounting Services (Estimated at no more than $1,500)
     This item supports the reimbursement of costs associated with performance of accounting services and fiscal management related to Association financial records and accounts.

b. Statewide Training Initiatives that Enhance Skills & Capabilities of District Directors & Staff - (-$39,000)
   - Minimum of four statewide partner meetings during the grant period (Estimated $4,000)

This item supports forums for discussion of issues relevant to Districts and the Department and their partners.

- Provide topical assistance and support to Districts (Estimated $2,500)
  This item includes costs associated with committees, including the Executive Board meetings.
- District Director Trainings (Estimated $7,600)
  This item supports the Association conducting statewide director trainings periodically throughout the year in varying locations across the state, including at the annual training meeting. As schedules permit, staff will also provide training to individual districts on topics at their request.
- Annual Training Meeting of Soil & Water Conservation Districts (Estimated $24,900)
  This item supports the expenses associated with planning, promoting, and implementing a statewide annual meeting event for Virginia's 47 districts.

c. District Development & Outreach – ($3,200)

- Area Meetings (Estimated $1,200) ($200/Area)
  This item supports the Association in their support and assistance in work related to hosting six Area meetings.
- Compile, revise, post on the Association web site, print (limited quantity) the SWCD Directory, assist with printed copy distribution and maintain an online directory (Estimated Cost $2,000)
  This item supports Directory production and online updates throughout the year.

Use of any funds made available by the Department through this Agreement are prohibited from being utilized to support any lobbying activities by Association members or others.

The Department shall release funding to the Association on a cost reimbursement basis upon receipt and approval of the Association's quarterly and final reports. Any cost overruns incurred by the Association during the time of performance shall be the responsibility of the Association.

Other Support Expenses Include ($19,300):

- Clean Water Farm Award (CWFA) support. This includes, but is not limited to, production of local CWFA signs; production of Basin Winner Medallion signs; the framing of resolutions; and reception costs, mileage, and lodging for program winners.
- Revisions or limited printings of the *Virginia Agricultural Cost-share Manual*, *Desktop Procedures for District Fiscal Operations*, the SWCD Director Handbook and Director Orientation materials.
- Printing of educational and marketing brochures.
- Trainings provided for District administrative staff.
- Training provided for District technical staff related to VACS, Conservation Planning, and other Department programs.
- To cover identified shortages in other estimated categories.

During the fiscal year, the Department shall make periodic assessments of any unused balance in the DCR Managed Funds for District Support category and determine where adjustments should be made to optimize expenditure of category funding.

In accordance with this Policy, the Department is authorized to enter agreements or contracts for the activities specified above.

5. Disbursement Schedule:

Disbursements to Districts shall be conducted on a quarterly basis in accordance with the DEPARTMENT OF CONSERVATION AND RECREATION AND VIRGINIA SOIL AND WATER CONSERVATION DISTRICT (Department/ District) GRANT AGREEMENT: Administrative and Operational Support from the Commonwealth of Virginia. Except due to extenuating circumstances or as otherwise set out in the Grant Agreement, disbursements to Districts will be executed within 45 calendar days following the beginning of a quarter contingent upon the satisfactory completion of database updates and the receipt of complete and accurate reports.

Quarters	Period
First **Quarter**	07/01/20 thru 09/30/20
Second **Quarter**	10/01/20 thru 12/31/20
Third **Quarter**	01/01/21 thru 03/31/21
Fourth **Quarter**	04/01/21 thru 06/30/21

6. Grant Agreements and Accountability:

On behalf of the Board and in accordance with this Policy and a Grant Agreement entered between the Department and each District, such District shall receive administrative and operational support funding only after the Fourth Quarter Fiscal Year 2020 report has been submitted (including the District's End of Year Cash Balance Report, and Carry Over Report) and upon the complete execution of the Grant Agreement and the return of an original signed Agreement to the District's assigned Department Conservation District Coordinator (CDC). The Grant Agreement shall include the Board's expected outcomes or "deliverables" for each District as a result of the funding provided. The Fiscal Year 2021 Grant Agreement template shall be approved by the Board.

The Department is directed by the Board to assess at the end of Fiscal Year 2021 each District's success in meeting the deliverables utilizing an A (fully satisfied), B (partially fulfilled), and C (did not fulfill) evaluation scale and to provide the results to the Board for review and appropriate action.

Those Districts receiving a "C" score for any deliverable shall be sent a Letter of Notice (LON) on behalf of the Board by the Department to the District's Board Chairman and Manager. The LON shall direct the District to develop a Performance Improvement Plan (PIP) within 60 days from the Board meeting where review of the deliverables receiving a "C" score occurred. The District's CDC shall closely assist the District in the development of their PIP. The PIP shall be presented to the Board's Audit Subcommittee (Subcommittee) at their next meeting by the District Board Chairman and/or a designated Director. Any explanations and actions taken to date may be presented to the Subcommittee at that time. Upon the Subcommittee's agreement with the PIP, the District Board shall report progress made towards successful implementation of the PIP to their CDC at their monthly meetings. Copies of the Subcommittee approved PIP shall be provided to the Board and the Subcommittee Chair shall brief the Board on all matters brought before the Subcommittee.

The Board continues to reserve the right to make funding adjustments to future fiscal year's

funding allocations and/or other fiscal corrective actions, including those related to special audits, in accordance with Part 7.

7. Noncompliance with this Policy:

In the event any District fails to comply with the provisions of this Policy, the Board reserves the right to require repayment of previously issued funds and/or direct further appropriate actions based upon noncompliance circumstances. Should an issue arise that impacts funding, the affected District(s) will be apprised of the issue(s) and provided an opportunity to address the concerns of the Board prior to Board action. The Board may reduce future funding to Districts that fail to act upon guidance and recommendations from auditors and the Department. Decisions and Board actions will be addressed on a case-by-case basis.

8. Unexpended State Funds Maintained by Districts:

Administration and operational support funds issued to Districts that remain unexpended at the close of the grant period will remain in the District's account(s).

It is unadvisable for any District to accumulate more than about six months of undedicated reserve funds. Public funds from local, state, and federal sources are provided to Districts not for savings, but strictly for performance of conservation. The Department will monitor the growth of unexpended funds through Grant Agreement required audit reports and report situations of concern to the Board.

9. Criteria for Financial Assistance:

Funding granted to Districts is contingent upon appropriations by the General Assembly. Should a reduction of funds occur during the course of Fiscal Year 2021, after the Department has utilized all unallocated and unobligated balances it may have available, every District will receive an equal percent reduction which will be calculated and deducted from each District's total approved administrative and operational funding specified within this Policy and the Department/District Grant Agreement (excluding dam maintenance funding). If additional direction is necessary, the Department shall consult with the Board. Should a reduction of funds occur, every District must return funding within 30 days of receiving notice of such reduction from the Department.

In the event a new District is formed or an existing District alters its boundaries, the Board will examine the total financial resources under its control and its priorities for use of these funds and adhere to its Policy titled Financial Commitments For Establishment of a New Soil & Water Conservation District (SWCD/district), or Realignment of an Existing District on all funding decisions in this Policy. The newly created or altered District may be funded at a reduced level, or may be required to share funding in an arrangement determined by the Board until sufficient funding is made available to fulfill provisions of this Policy and priorities of the Board.

Expenditure of District funds, regardless of source, will be made without regard to any person's race, color, religion, sex, age, national origin, handicap, or political affiliation.

All funds received by Districts are public funds and provision of the Freedom of Information Act shall apply to financial records, unless otherwise specified within the Act or elsewhere in the *Code of Virginia*. Each District shall safeguard, provide accountability, and expend funds only for approved purposes.

10. Electronic Copy:

An electronic copy of this policy guidance in PDF format is available on the Department of Conservation and Recreation's website at http://www.dcr.virginia.gov/laws-and-regulations/lr8a.

11. Contact Information:

Please contact the Department of Conservation and Recreation's Soil and Water Conservation Division by calling the Division's administrative support at 804-225-3653 with any questions regarding the application of this Policy. The call shall be referred to program staff accordingly.

12. Authorization

Upon the approval of this Policy, the Department shall, in accordance with its fiduciary powers and responsibilities, make and enter into any and all Grant Agreements and contracts, and take all actions necessary, to fully implement and administer this Policy.

13. Adoption, Amendments, and Repeal:

This document supersedes the Board's Policy titled Policy on Soil and Water Conservation District Administration and Operations Funding Allocations for Fiscal Year 2021 adopted June 3, 2020 and will remain in effect until rescinded or superseded.

Attachment A: Fiscal Year 2021 Virginia Soil and Water Conservation District Administration and Operations Funding Allocations (Sub-program 50320)

1	2	3	4	5	6	7	8
SWCD	FY21 ADMINISTRATION AND OPERATIONS CORE FUNDING	DAM MAINTENANCE ($3,000/ dam)	# OF DAMS	SUBTOTAL ADMINISTRATION AND OPERATIONS ALLOCATIONS	SMALL DAM REPAIR	DCR MANAGED FUNDS FOR DISTRICT SUPPORT	TOTAL
APPOMATTOX RIVER	104,073			104,073			
BIG SANDY	102,428			102,428			
BIG WALKER	118,850			118,850			
BLUE RIDGE	150,260	30,000	10	180,260			
CHOWAN BASIN	148,500			148,500			
CLINCH VALLEY	116,951			116,951			
COLONIAL	146,733			146,733			
CULPEPER	178,025	33,000	11	211,025			
DANIEL BOONE	116,358			116,358			
EASTERN SHORE	196,040			196,040			
EVERGREEN	116,922			116,922			
HALIFAX	118,040			118,040			
HANOVER-CAROLINE	145,915	3,000	1	148,915			
HEADWATERS	198,992	33,000	11	231,992			
HENRICOPOLIS	104,228			104,228			
HOLSTON RIVER	118,310			118,310			
JAMES RIVER	105,652			105,652			
JOHN MARSHALL	145,088			145,088			
LAKE COUNTRY	109,384			109,384			
LONESOME PINE	103,914			103,914			
LORD FAIRFAX	153,201	6,000	2	159,201			
LOUDOUN	119,590			119,590			
MONACAN	105,802			105,802			
MOUNTAIN	119,502			119,502			
MOUNTAIN CASTLES	118,382	12,000	4	130,382			
NATURAL BRIDGE	120,035			120,035			
NEW RIVER	121,556			121,556			
NORTHERN NECK	199,058			199,058			
NORTHERN VA	105,183			105,183			
PATRICK	116,235			116,235			
PEAKS OF OTTER	106,566			106,566			
PEANUT	148,098			148,098			
PETER FRANCISCO	104,463	51,000	17	155,463			
PIEDMONT	169,880	42,000	14	211,880			
PITTSYLVANIA	120,108			120,108			
PRINCE WILLIAM	104,559			104,559			
ROBERT E. LEE	197,675	18,000	6	215,675			
SCOTT COUNTY	118,230			118,230			
SHENANDOAH VALLEY	173,132	24,000	8	197,132			
SKYLINE	148,939			148,939			
SOUTHSIDE	104,510	36,000	12	140,510			
TAZEWELL	104,185			104,185			
THOMAS JEFFERSON	150,635	24,000	8	174,635			
THREE RIVERS	145,789			145,789			
TIDEWATER	144,625			144,625			
TRI-COUNTY/CITY	121,533			121,533			
VIRGINIA DARE	122,957			122,957			
TOTALS	6,209,091	312,000	104	6,521,091	500,000	170,000	7,191,091

VIRGINIA SOIL AND WATER CONSERVATION BOARD POLICY AND PROCEDURES ON SOIL AND WATER CONSERVATION DISTRICT COST-SHARE AND TECHNICAL ASSISTANCE FUNDING ALLOCATIONS (FISCAL YEAR 2021)

(Approved by Board June 3, 2020)

1. Policy Purpose:

This Policy and Procedures document specifies the Virginia Soil and Water Conservation Board's (Board) process by which funds are to be allocated by the Department of Conservation and Recreation (Department) to the Commonwealth's 47 local Soil and Water Conservation Districts (Districts) for cost-share and technical assistance (Fiscal Year 2021 or FY21). The Policy also highlights the water quality emphasis of the Virginia Agricultural Best Management Practices Cost-share Program and the targeted use of allocated cost-share funding. The corresponding Grant Agreement will guide the distribution and disbursement of FY21 funds. A separate Board Policy and Grant Agreement governs the FY21 distribution of administrative and operational support funds to Districts.

2. Cost-share Program Mission and Eligibility:

The Virginia Agricultural Best Management Practices Cost-share Program (VACS) is administered by the Board and Department through the Districts. The Program's goal is to improve water quality in the state's streams, rivers, and the Chesapeake Bay. VACS offers cost-share assistance as an incentive to carry out construction or implementation of selected Best Management Practices (BMPs). The basis of VACS is to encourage the voluntary installation of agricultural BMPs to meet Virginia's non-point source pollution reduction water quality objectives. Although resource based problems affecting water quality occur on all land uses, VACS promotes efforts for corrective action on agricultural lands only. VACS emphasizes the implementation of agricultural BMPs in locations that provide the greatest nutrient and sediment reductions for the taxpayer's dollars spent. Cost-shared BMPs must maximize nutrient and sediment reductions and also protect the taxpayer's interest, by implementing the most cost-effective BMPs possible in locations that achieve the greatest pollutant reductions on a field by field basis. VACS objectives include special emphasis on the reduction of nutrients (nitrogen and phosphorus), and sediment delivered to the Chesapeake Bay; by preventing additional pollution from entering state waters; and meeting the criteria for Virginia's compliance with Section 319 of the Clean Water Act. VACS implementation should be based upon sound conservation planning and best professional judgment.

For the purposes of VACS, agricultural land means land being used in a bona fide program of agricultural management and engaged in the production of agricultural, horticultural, or forest products for market. In order to be considered agricultural land, the real estate must consist of a minimum of five contiguous acres and there must be verifiable gross receipts in excess of $1,000 per year from the production or sale of agricultural, horticultural, or forest products produced on the applicant's agricultural land for each of the past five years. The greater than $1,000 threshold may be documented by using crop type acres and livestock numbers collected as part of the conservation planning inventory or other acceptable forms of proof including Internal Revenue Service (IRS) forms or other accounting records certified by a tax preparer that show profit or loss from farm operations. Non-industrial private forest lands are exempt from the $1,000 requirement. (See Part 4: Definitions for further explanation.)

Readers should refer to the *Program Year 2021 Virginia Agricultural Cost Share (VACS) BMP Manual* for additional requirements associated with the implementation of the Virginia Agricultural Best Management Practices Cost-Share Program.

3. Authority:

This funding distribution Policy has been developed to provide transparency, predictability, and consistency to the processes by which the cost-share and technical assistance funding set out in Item 373 A.1, B.1., B.2., B.3., E.1., E.2, E.3., and F.1. of Chapter 1289 of the 2020 Acts of Assembly (the 2020 Appropriation Act) is allocated and distributed to Districts. Funds subject to this Policy are set out in Sub-programs 50322 (Technical Assistance to Soil and Water Conservation Districts) and 50323 (Agricultural Best Management Practices Cost Share Assistance) and are guided by the following specific budget provisions within Item 373:

> A.1. Out of the amounts appropriated for Financial Assistance to Virginia Soil and Water Conservation Districts, $12,141,091 the first year and $12,141,091 the second year from the general fund shall be provided to soil and water conservation districts for administrative and operational support as well as base funding for technical assistance. These funds shall be distributed upon approval by the Virginia Soil and Water Conservation Board to the districts in accordance with the Board's established financial allocation policy. These amounts shall be in addition to any other funding provided to the districts for technical assistance pursuant to subsections B. and C. of this Item for appropriations in excess of $35,000,000. Of this amount, $6,209,091 the first year and $6,209,091 the second year from the general fund shall be distributed to the districts for core administrative and operational expenses (personnel, training, travel, rent, utilities, office support, and equipment) based on identified budget projections and in accordance with the Board's financial allocation policy; $4,550,000 the first year and $4,550,000 the second year for base technical assistance support; $312,000 the first year and $312,000 the second year from the general fund shall be distributed at a rate of $3,000 per dam for maintenance; $500,000 the first year and $500,000 the second year from the general fund for small dam repairs of known or suspected deficiencies; $400,000 the first year and $400,000 the second year from the general fund for the purchase and installation of remote monitoring equipment for District-owned high and significant hazard dams; and $170,000 the first year and $170,000 the second year to the department to provide district support in accordance with Board policy, including, but not limited to, services related to auditing, bonding, contracts, and training. The amount appropriated for small dam repairs of known or suspected deficiencies and the purchase and installation of remote monitoring equipment is authorized for transfer to the Soil and Water Conservation District Dam Maintenance, Repair, and Rehabilitation Fund.
>
> B.1.Notwithstanding §10.1-2129A., Code of Virginia, $46,315,697 the first year from the general fund shall be deposited to the Virginia Water Quality Improvement Fund established under the Water Quality Improvement Act of 1997. Of this amount in the first year, $2,250,000 shall be appropriated to the Department for the following specified statewide uses: $500,000 shall be used for the Commonwealth's match for participation in the Federal Conservation Reserve Enhancement Program (CREP); $500,000 shall be transferred to the Virginia Association of Soil and Water Conservation Districts to be used for the Virginia Conservation Assistance Program (VCAP); $750,000 shall be allocated for special nonpoint source reduction projects to include, but not be limited to, poultry litter transport and grants related to the development and certification of Resource Management Plans developed pursuant to §10.1-104.7; $250,000 shall be transferred to the Department of Forestry for water quality grants; and $250,000 to the Department for the development and continued maintenance of the Conservation Application Suite including costs related to servers and necessary software licenses. The Department of Forestry shall submit a report by August 15, 2020, to the Department of Conservation and Recreation specifying uses of funds received. Pursuant to paragraph B of Item 372,

$4,857,829 is designated for deposit to the reserve within the Virginia Water Quality Improvement Fund.

2. Of the remaining amount in the first year, $39,207,868 is authorized for transfer to the Virginia Natural Resources Commitment Fund, a sub fund of the Water Quality Improvement Fund. Notwithstanding any other provision of law, the funds transferred to the Virginia Natural Resources Commitment Fund shall be distributed by the Department upon approval of the Virginia Soil and Water Conservation Board in accordance with the board's developed policies, as follows: $27,062,591,shall be used for matching grants for Agricultural Best Management Practices on lands in the Commonwealth exclusively or partly within the Chesapeake Bay watershed, $11,598,254 shall be used for matching grants for Agricultural Best Management Practices on lands in the Commonwealth exclusively outside the Chesapeake Bay watershed, and an additional $547,023 in addition to the base funding provided in A.1. shall be appropriated for Technical Assistance for Virginia Soil and Water Conservation Districts.

3. This appropriation meets the mandatory deposit requirements associated with the FY 2019 excess general fund revenue collections and discretionary year-end general fund balances.

E.1 Out of the appropriation in this Item, $10,000,000 the first year and $10,000,000 the second year from the Virginia Natural Resources Commitment Fund, a subfund of the Virginia Water Quality Improvement Fund, is hereby appropriated. The funds shall be dispersed by the department pursuant to § 10.1-2128.1, Code of Virginia.

2. The source of an amount estimated at $10,000,000 the first year and $10,000,000 the second year to support the nongeneral fund appropriation to the Virginia Natural Resources Commitment Fund shall be the recordation tax fee established in Part 3 of this act.

3. Out of this amount, a total of thirteen percent, or $1,300,000, whichever is greater, shall be appropriated to Virginia Soil and Water Conservation Districts for technical assistance to farmers implementing agricultural best management practices, and $8,700,000 for Agricultural Best Management Practices Cost-Share Assistance. Of the amount deposited for Cost-Share Assistance, seventy percent shall be used for matching grants for agricultural best management practices on lands in the Commonwealth exclusively or partly within the Chesapeake Bay watershed, and thirty percent shall be used for matching grants for agricultural best management practices on lands in the Commonwealth exclusively outside of the Chesapeake Bay watershed.

F.1. Out of the appropriation in this Item, $2,583,531 in the first year and $2,583,531 in the second year from the funds designated in Item 3-1.01.C. of this act are hereby appropriated to the Virginia Water Quality Improvement Fund and designated for deposit to the reserve fund established pursuant to paragraph B of Item 372. It is the intent of the General Assembly that all interest earnings of the Water Quality Improvement Fund shall be spent only upon appropriation by the General Assembly, after the recommendation of the Secretary of Natural Resources, pursuant to § 10.1-2129, Code of Virginia.

Additionally, Item 375.10 of Chapter 1289 of the 2020 Acts of Assembly states the following:

Notwithstanding the provisions set forth in this Act, the amounts listed below associated with increased general fund spending within this agency shall be immediately unallotted upon enactment of these appropriations from the applicable Items of this agency and any other relevant Item of this act. Further, notwithstanding the provisions of this Act, any language associated with the spending listed below shall not be applicable unless, after such unallotment, a base amount of funding remains to which such language would be applicable or unless such language previously appeared in Chapter 854, 2019 Acts

of Assembly. Any amounts referenced within any other Items of this Act that reflect or include the spending amounts listed below shall have no effect. These amounts shall remain unallotted until re-enacted by the General Assembly after acceptance of a revenue forecast that confirms the revenues estimated within this Act. No agency shall spend, commit, or otherwise obligate the amounts listed below from any source of funds for any of the purposes stated below or any other funds that may be unallotted…

Provide a supplemental deposit to the Water Quality Improvement Fund	$25,410,000 (FY2022)
Supplemental Water Quality Improvement Fund amount	$3,840,000 (FY2021)

In addition to the authorities set out in the 2020 Appropriation Act, the Code of Virginia contains the following Board and Department duties applicable to this Policy:

§ 10.1-104.1. Department to assist in the nonpoint source pollution management program.

A. The Department, with the advice of the Board of Conservation and Recreation and the Virginia Soil and Water Conservation Board and in cooperation with other agencies, organizations, and the public as appropriate, shall assist in the Commonwealth's nonpoint source pollution management program.

B. The Department shall be assisted in performing its nonpoint source pollution management responsibilities by Virginia's soil and water conservation districts. Assistance by the soil and water conservation districts in the delivery of local programs and services may include (i) the provision of technical assistance to advance adoption of conservation management services, (ii) delivery of educational initiatives targeted at youth and adult groups to further awareness and understanding of water quality issues and solutions, and (iii) promotion of incentives to encourage voluntary actions by landowners and land managers in order to minimize nonpoint source pollution contributions to state waters.

The provisions of this section shall not limit the powers and duties of other state agencies.

§ 10.1-546.1. Delivery of Agricultural Best Management Practices Cost-Share Program.

Districts shall locally deliver the Virginia Agricultural Best Management Practices Cost-Share Program described under §10.1-2128.1, under the direction of the Board, as a means of promoting voluntary adoption of conservation management practices by farmers and land managers in support of the Department's nonpoint source pollution management program.

§ 10.1-2128. Virginia Water Quality Improvement Fund established; purposes.

A. There is hereby established in the state treasury a special permanent, nonreverting fund, to be known as the "Virginia Water Quality Improvement Fund." The Fund shall be established on the books of the Comptroller. The Fund shall consist of sums appropriated to it by the General Assembly which shall include, unless otherwise provided in the general appropriation act, 10 percent of the annual general fund revenue collections that are in excess of the official estimates in the general appropriation act and 10 percent of any unrestricted and uncommitted general fund balance at the close of each fiscal year whose reappropriation is not required in the general appropriation act. The Fund shall also consist of such other sums as may be made available to it from any other source, public or private, and shall include any penalties or damages collected under this article, federal grants solicited and received for the specific purposes of the Fund, and all interest and income from investment of the Fund. Any sums remaining in the Fund, including interest thereon, at the end of each fiscal year shall not revert to the general fund but shall remain in the Fund. All moneys designated for the Fund shall be paid into the state treasury and credited to the Fund. Moneys in the Fund shall be used solely for Water Quality Improvement Grants. ….

§ 10.1-2128.1. Virginia Natural Resources Commitment Fund established.

A. There is hereby created in the state treasury a special nonreverting fund to be known as the Virginia Natural Resources Commitment Fund hereafter referred to as "the Subfund," which shall be a subfund of the Virginia Water Quality Improvement Fund and administered by the Department of Conservation and Recreation. The Subfund shall be established on the books of the Comptroller. All amounts appropriated and such other funds as may be made available to the Subfund from any other source, public or private, shall be paid into the state treasury and credited to the Subfund. Interest earned on moneys in the Subfund shall remain in the Subfund and be credited to it. Any moneys remaining in the Subfund, including interest thereon, at the end of each fiscal year shall not revert to the general fund but shall remain in the Subfund. Moneys in the Subfund shall be used as provided in subsection B solely for the Virginia Agricultural Best Management Practices Cost-Share Program administered by the Department of Conservation and Recreation…

C. The Department of Conservation and Recreation, in consultation with stakeholders, including representatives of the agricultural community, the conservation community, and the Soil and Water Conservation Districts, shall determine an annual funding amount for effective Soil and Water Conservation District technical assistance and implementation of agricultural best management practices pursuant to § 10.1-546.1. Pursuant to § 2.2-1504, the Department shall provide to the Governor the annual funding amount needed for each year of the ensuing biennial period. The Department shall include the annual funding amount as part of the reporting requirements in § 62.1-44.118.

§ 10.1-2132. Nonpoint source pollution funding; conditions for approval.

A. The Department of Conservation and Recreation shall be the lead state agency for determining the appropriateness of any grant related to nonpoint source pollution to be made from the [Water Quality Improvement] Fund to restore, protect and improve the quality of state waters. ….

C. Grant funding may be made available to local governments, soil and water conservation districts, institutions of higher education and individuals who propose specific initiatives that are clearly demonstrated as likely to achieve reductions in nonpoint source pollution, including, but not limited to, excess nutrients and suspended solids, to improve the quality of state waters. Such projects may include, but are in no way limited to, the acquisition of conservation easements related to the protection of water quality and stream buffers; conservation planning and design assistance to develop nutrient management plans for agricultural operations; instructional education directly associated with the implementation or maintenance of a specific nonpoint source pollution reduction initiative; the replacement or modification of residential onsite sewage systems to include nitrogen removal capabilities; implementation of cost-effective nutrient reduction practices; and reimbursement to local governments for tax credits and other kinds of authorized local tax relief that provides incentives for water quality improvement. The Director shall give priority consideration to the distribution of grants from the Fund for the purposes of implementing tributary strategy plans, with a priority given to agricultural practices. In no single year shall more than 60 percent of the moneys be used for projects or practices exclusively within the Chesapeake Bay watershed.

D. The Director of the Department of Conservation and Recreation shall manage the allocation of Water Quality Improvement Grants from the Virginia Natural Resources Commitment Fund established under § 10.1-2128.1.

4. Definitions:

"Agricultural products" means crops, livestock and livestock products, including but not limited to: field crops, forage, fruits, vegetables, horticultural specialties, cattle, sheep, hogs, goats, horses, poultry, furbearing animals, milk, eggs and furs.

“Agricultural production” means the production for commercial purposes of crops, livestock and livestock products, and includes the processing or retail sales by the producer of crops, livestock or livestock products which are produced on the parcel or in the District.

“Animal Type” means the type of livestock the BMP is being installed to treat. For reporting in the AgBMP Tracking Module, the following animal types are used.

Beef	Dairy	Swine	Layer	Sheep	Goat
Horse	Turkey	Broiler	Pullets	Other	

“Applicant” means a landowner, agent, or operator of record as long as the individual has control of the property. An applicant may be any corporation, association, partnership, or one or more individuals. Various companies, corporations, and partnership arrangements exist for farm ownership. Farm corporations (signing under Federal Tax Identification number) or partnerships operating under a farm name are classified as a single "applicant.” Applicants are identified by a unique social security number and/or Federal Tax Identification number.

“Conservation Efficiency Factor (CEF)” means a factor calculated by the AgBMP Tracking Module to serve as a ranking tool and provide some guidance for ranking applications that would implement different BMPs. This tool is designed to assist Districts with the ranking of their cost share practice applications. The CEF uses eleven different components, including soil loss data that is inputted by the District, as well as the environmental information associated with the location of the practice on the earth to generate a factor used to rank the proposed practice compared with other instances of the same BMPs as well as instances of other BMPs.

“District” or “local soil and water conservation district” or “SWCD” means a political subdivision of the Commonwealth organized in accordance with the provisions of the Code of Virginia contained in Chapter 5 of Title 10.1 (§ 10.1-500 et seq.) and with the powers and duties set out in Chapters 1, 5, 6, and 21.1 of Title 10.1 of the Code of Virginia.

“Drainage basins” for the purposes of funding allocations means the lands within the Chesapeake Bay watershed (CB – Chesapeake Bay) or the lands in the Commonwealth exclusively outside of the Chesapeake Bay watershed (OCB – Outside of Chesapeake Bay).

“Forestal production” means the production for commercial purposes of forestal products, and includes the processing or retail sales by the producer, of forestal products that are produced on the parcel. Forestal products include, but are not limited to; saw timber, pulpwood, posts, firewood, Christmas trees, and other tree and wood products for sale or for farm use.

“Horticultural production” means the production for commercial purposes of horticultural products, and includes the processing or retail sales, by the producer, of horticultural products that are produced on the parcel. Horticultural products include, but are not limited to, fruits of all kinds, grapes, nuts, and berries, nursery and floral products for sale or for farm use.

“Total Maximum Daily Load” or “TMDL” means a calculation of a maximum amount of a pollutant that a waterbody can receive and still meet water quality standards.

5. Allocation Process for Cost-share:

The process for determining the allocation of new cost-share includes the following steps:

A) Review the Appropriation Act language and determine the distribution of amounts deposited to the Virginia Water Quality Improvement Fund (WQIF) from state surplus allocations, WQIF Reserve, or from other General Fund deposits.
(See **TABLE 1**)

B) Review the Appropriation Act language and determine the total amount available for cost-share and technical assistance in the given fiscal year provided from the:
1. Close of fiscal year general fund surplus appropriated to the Virginia Water Quality. Improvement Fund (WQIF) and the amounts available for cost-share and technical assistance.
2. Special WQIF deposits from the General Fund.
3. Nongeneral fund appropriation to the Virginia Natural Resources Commitment Fund from the recordation tax fee.
4. WQIF and Virginia Natural Resources Commitment Fund Interest.
5. The Reserve within the WQIF.
(SEE **TABLE 2**)

C) Allocate portions of the funding to the CB and to OCB.
(SEE **TABLE 3**)

D) Develop a cost-share spending plan that allocates appropriated funds to Program elements. (Determine uses of cost-share in CB and OCB Areas.)
1. Central Service Adjustments
2. VACS – Virginia Agricultural Best Management Practices Cost-Share Program
(SEE **TABLE 4**)

E) Use the Agricultural Nonpoint Source Hydrologic Unit (HU) Ranking Process to determine cost-share allocations to Districts.
(SEE **TABLES 5-7 and Attachments A-D**)

<u>Review of Appropriation Act Language (Allocation Steps A and B)</u>

For FY21, $46,315,697 in funding is being deposited to the Water Quality Improvement Fund in accordance with Item 373 of the 2020 Appropriation Act (See Part 2, Authority). Of this amount, distributions are directed as follows:

TABLE 1: FY21 Appropriation Act Distributions for WQIF Surplus (Item 373 B.1.)

Water Quality Program	Program Distributions
WQIF (Total Surplus Deposit)	$46,315,697
• Earmark for Commonwealth's match to federal Conservation Reserve Enhancement Program (CREP)	$500,000
• Earmark for the Virginia Conservation Assistance Program	$500,000
• Earmark for special nonpoint source projects (poultry litter and RMPs)	$750,000
• Earmark for the Department of Forestry	$250,000
• Earmark for the Department for the development and continued maintenance for the Conservation Application Suite	$250,000
• Deposit to WQIF Reserve	$4,857,829
• Transfers to the Virginia Natural Resources Commitment Fund	$39,207,868
o Technical Assistance for Virginia Soil and Water Conservation Districts	$547,023
o Agricultural Best Management Practices Cost-Share Assistance	$38,660,845

For FY21, $44,207,868 in funding (Item 373 - see Part 2, Authority) is available for allocations to the Districts for cost-share and technical assistance.

TABLE 2: FY21 Cost-share and Technical Assistance Allocations by Fund Source

Funding Source	Total	Cost-share Portion of Total	Technical Assistance Portion of Total**
WQIF (Surplus deposit)	$39,207,868	$38,660,845***	$547,023****
Recordation Fee*	$5,000,000*	$3,700,000	$1,300,000
Technical Assistance Base Funding (Item 373 A.1.)			$4,550,000
TOTAL (unadjusted)	$44,207,868	$42,360,845***	$6,397,023****
TOTAL ALLOCATION (includes technical assistance funding provided in Item 373 A.1.)	$40,850,000	$35,000,000	$5,850,000

The 2020 Appropriation Act (Item 373 – see Part 2, Authority) provides for $10,000,000 in Appropriation from the recordation tax fee. Because of reduced actual revenue being recognized historically and the potential for a very significant shortfall into FY2021, an even more conservative approach is being taken towards FY2021 allocations with only $5,000,000 being utilized for budgeting purposes.

** The 2020 Appropriation Act (Item 373 B.1. and B.2. – see Part 2, Authority) utilizes 13% for the formulation of Technical Assistance Amounts to be allocated from the Surplus Deposit.

***The 2020 Appropriation Act was enacted with limitations on the spending, commitment or obligation of certain funds (Item 375.10). Of the amount to be deposited to the Water Quality Improvement Fund, $3,840,000 remains unallotted unless the General Assembly re-enacts it conditioned on acceptance of a revenue forecast that confirms the revenues estimated in the Act. Therefore, the Board is prohibited from spending, committing, or otherwise obligating these funds; therefore, $3,840,000 has been reduced from the amount provided for cost-share (Cost-share Portion of Total) as well as the total amount available (TOTAL adjusted).

****Consequently, out of caution and with concern for the financial outlook for FY2021, the Board is allocating $35,000,000 for the cost-share portion of the total which includes $3,700,000 in anticipated recordation fee revenue and $31,300,000 in general funds from the mandatory WQIF deposit. Additionally, while the Board is allocating the mandatory $1,300,000 in technical assistance funds from the recordation revenue, the Board is not allocating the $547,023 in additional technical assistance funding provided for a cost-share program of more than $35 million. If appropriate, both the additional cost-share and technical assistance funds will be subsequently allocated by the Board during FY2021 or not until FY2022 if both available and appropriate.

The 2020 Appropriation Act specifies the distributions for both the WQIF Surplus Deposit and the recordation revenues. Distributions within the CB and OCB shall be as follows:

TABLE 3: FY21 Cost-share Allocations by Drainage Basin and Fund Source

Funding Source	Total	Cost-share Portion of Total	Cost-share Portion Allocated to Lands Exclusively or Partly Within the CB*	Cost-share Portion Allocated to Lands Exclusively OCB*
WQIF General Fund deposit	$31,300,000	$31,300,000	$21,910,000	$9,390,000
Recordation Fee	$5,000,000	$3,700,000	$2,590,000	$1,110,000
TOTAL	$36,300,000	$35,000,000	$24,500,000	$10,500,000

* Amounts rounded to the nearest dollar.

<u>Spending Plan: Allocation of Appropriated Funds (Allocation Step D)</u>

Out of the amounts available for cost-share, the Spending Plan shall allocate funding to BMP practices associated with specific program elements as follows:

TABLE 4: FY21 Cost-share Spending Plan by Drainage Basin and Fund Source

Program Element	Cost-share Portion Allocated to Lands Exclusively or Partly Within the CB (Surplus)	Cost-share Portion Allocated to Lands Exclusively or Partly Within the CB (Recordation Fee)	Cost-share Portion Allocated to Lands Exclusively OCB (Surplus)	Cost-share Portion Allocated to Lands Exclusively OCB (Recordation Fee)	Totals
Total Available	$21,910,000	$2,590,000	$9,390,000	$1,110,000	$35,000,000
Central Service Adjustments	$26,023		$11,152		$37,175
VACS	$21,883,977	$2,590,000	$9,378,848	$1,110,000	$34,962,825

*Rounded to the nearest dollar.

Specifics regarding the process by which such allocations are determined for each Program element within the spending plan are as follows:

Explanation of Spending Plan Distribution Components:

RMP – Resource Management Plans (Allocation Step D1)

Any remaining RMP balances from prior fiscal years funds are authorized to be carried forward to FY21, and no new earmark is being made. These funds may be utilized to contract for plan development and certification although the intent is for the emphasis to be placed on plan certification (RMP-2). A fundamental goal of the Resource Management Plan Program pursuant to § 10.1-104.8 of the Code of Virginia is for the RMP plans to include "agricultural best management practices sufficient to implement the Virginia Chesapeake Bay TMDL Watershed Implementation Plan and other local TMDL water quality requirements of the Commonwealth". The intent of the program is to encourage farm owners and operators to voluntarily implement a high level of BMPs on their farmlands in order to be protective of water quality.

Soil and Water Conservation Districts are authorized to develop plans and recover costs from the cost-share applicant in accordance with Item 373 of the 2020 Appropriation Act.

> H. Notwithstanding §10.1-552, Code of Virginia, Soil and Water Conservation Districts are hereby authorized to recover a portion of the direct costs of services rendered to landowners within the district and to recover a portion of the cost for use of district-owned conservation equipment. Such recoveries shall not exceed the amounts expended by a district on these services and equipment.

SL-6 (Allocation Step D2)

Any funds remaining after all pending 2015 SL-6 practices have been completed and payment has been made to the producer must be returned to the Department for reallocation by the Board in accordance with Part 9 of this Policy.

Central Service Adjustments (Allocation Step D3)

The Appropriation Act (Part 3: Miscellaneous) annually applies charges (interfund transfers) to each Agency for expenses incurred by central service agencies associated with Agency funds. For FY21, charges for nongeneral funds are $37,175 from 0900 funds. If a portion of these expenses need to be paid from cost-share amounts provided for in the Appropriation Act, it should be allocated from non-budgeted "cash transfer in (CTI)" funds or non-budgeted recordation fee tax deposits before reallocations are made.

VACS – Virginia Agricultural Best Management Practices Cost-Share Program Allocations (Allocation Step D4)

After the other noted distributions have been met in the spending plan (SEE TABLE 4 there is $34,962,825 available for distribution as VACS cost-share. (Table 4 outlines the drainage basin split and fund sources.) Specific allocations to Districts in FY21 shall be made using science-based targeting of funds so that areas with the greatest potential to contribute agricultural nonpoint source pollution have the financial resources to implement BMP to reduce nutrient and sediment contamination of surface and ground waters. The process utilized to make these allocations is called the Agricultural Nonpoint Source Hydrologic Unit (HU) Ranking Process.

Agricultural Nonpoint Source Hydrologic Unit (HU) Ranking Process (Step E)

The Department utilizes a component of Virginia's Nonpoint Source Assessment to focus its cost-share allocations where funds can produce the greatest reductions in surface and ground water contamination. Every two years, the Department of Environmental Quality (DEQ) prepares a Virginia Water Quality Assessment Report, also known as the 305(b)/303(d) Water Quality Assessment Integrated Report for submission to the Environmental Protection Agency that typically includes an updated Nonpoint Source Assessment prepared by both the Department and DEQ. Currently, the 2020 Nonpoint Source Assessment represents the most recent

information available for use. The Department utilizes the agricultural component of the most current and approved NPS assessment to focus agricultural cost-share funds.

Hydrologic unit assessment scores are calculated using a nonpoint source pollutant load simulation model and data developed by the Department, DEQ, and the Virginia Tech, Department of Biological Systems Engineering. The model includes statewide data from:

- Detailed land use from interpreted imagery supplemented with tillage practice data;
- USDA Cropland data;
- National Agricultural Statistics Service data;
- Grazing and manure application practices;
- Hydrologic soil groups;
- Average water content and K factors of all soils;
- Stream flows from gauge stations;
- Climate records from a multi-state area;
- Growing seasons;
- Dominant crop types by hydrologic unit;
- CB Watershed Model output;
- Animal numbers by type and location;
- Distribution and extent of agricultural conservation practices; and
- Slope.

Additional technical information regarding modeling processes are set out in Department documents titled: *2020 NPS Assessment and Prioritization Primer*

The computer model estimates and ranks the pollutant loads of nitrogen, phosphorus, and sediment in 1,240 of the 1,251 6th level hydrologic units in Version 5 of Virginia's National Watershed Boundary Dataset (NWBD), each identified by a unique code (VAHU6). Those units not modeled are primarily water. Each of three per hectare agricultural pollutant loads are sorted Low to High and assigned their sort order for each Hydrologic Unit (HU). The rank score of a HU is the sum of these three values. For example:

Hydrologic Unit – (VAHU6)	Nitrogen Load Sort Order (NSEQ)	Phosphorous Load Sort Order (PSEQ)	Sediment Load Sort Order (SSEQ)	Sum (NSEQ + PSEQ + SSEQ)	Agricultural Pollutant Potential Rank
PS14	944	1133	1029	3106	High (H)
JU37	683	752	1139	2574	Medium (M)
NE28	486	193	214	893	Low (L)

The higher the composite ranking score, the higher its potential to contribute agricultural NPS pollution (based on Nitrogen, Phosphorus, and Sediment loads). In accordance with this process, Attachment A includes the Unit Area Loads for Nitrogen (kg/Ag ha-yr), Phosphorus (kg/Ag ha-yr), and Sediment (mt/Ag ha-yr); the Sorted Sequence (Rank Order) between HUs for each pollutant's load; a Sum Order for each HU; and the resulting Agricultural Pollutant Potential Rank for each HU to be utilized in FY21 cost-share allocation computations.

The Department has designated the highest 20% of the ranked composite scores as High (H) potential, the middle 30% as Medium (M), and the lowest 50% are ranked Low (L) for their potential to contribute agricultural NPS pollution (natural breaking points in the data are looked for around these percentiles; not to exceed a 0.50 deviation).

For FY21 (see **Attachment A**) the data breaks were as follows:

TABLE 5: Agricultural Pollutant Potential Ranking

Agricultural Pollutant Potential Rank	# of HUs included	% of HUs included	% of Ag land	Sum Order Range
H	245	19.58	21.41	2635-3572
M	375	29.98	30.34	1778-2632
L	631	50.44	48.25	3-1776
Total	1251	100.000	100.000	

NOTE: Since the installation and distribution of BMPs implemented is part of the calculation of the agricultural NPS loads and ranking, the hydrologic units may change rankings if a large number of BMPs are implemented in a particular HU between assessments. Ranking changes tend to shift the funds between the HUs.

The next step is to compile the HU area (hectares or ha) designated as H, M, and L by county and the District geographic areas. Hydrologic unit boundaries are based upon naturally occurring drainage divides and do not often reflect county boundaries. As a result, any HU may be fully contained within a county or divided between two or more counties. Geographic Information System analysis allows the area (acres) of each ranked HU (H, M, and L) within a county boundary to be calculated and compared to the total number of acres of that pollutant ranking (H, M, and L) within each drainage basin (CB or OCB). The county area (acres) designated as H, M, and L are then rolled up to the 47 Districts. (Those HUs not within a District boundary have been removed from the analysis and do not contribute to the acreage total utilized in calculating the Cost-share Multiplier.)

Some Districts reside in the CB, some are located in only OCB areas, and some contain acreage in both. District drainage basin assignments are outlined in **Attachment B**.

Once a composite area (acres) for H, M, and L HUs has been calculated for each District by drainage basin, a H, M, and L cost-share multiplier based on percentage of agricultural acres in the District (for H, M, and L) compared to the drainage basin total (for H, M, and L) is calculated and then applied respectively to the amount of cost-share funding allocated to the H, M, and L pollutant load categories in the CB and OCB areas. This analysis is set out in **Attachment C**. **Attachment C** provides data by Drainage Basin (CB and OCB), District, Agricultural Pollutant Potential Rank (H, M, and L), Total Area (acres) of Hydrologic Units in each District by Agricultural Pollutant Potential Rank and Drainage Basin, and the resulting Percentage Rank (Cost-share Multiplier).

Attachment D provides a full-page version of the image below **(FIGURE 1)** depicting the statewide distribution of H, M, and L HUs by District and Drainage Basin.

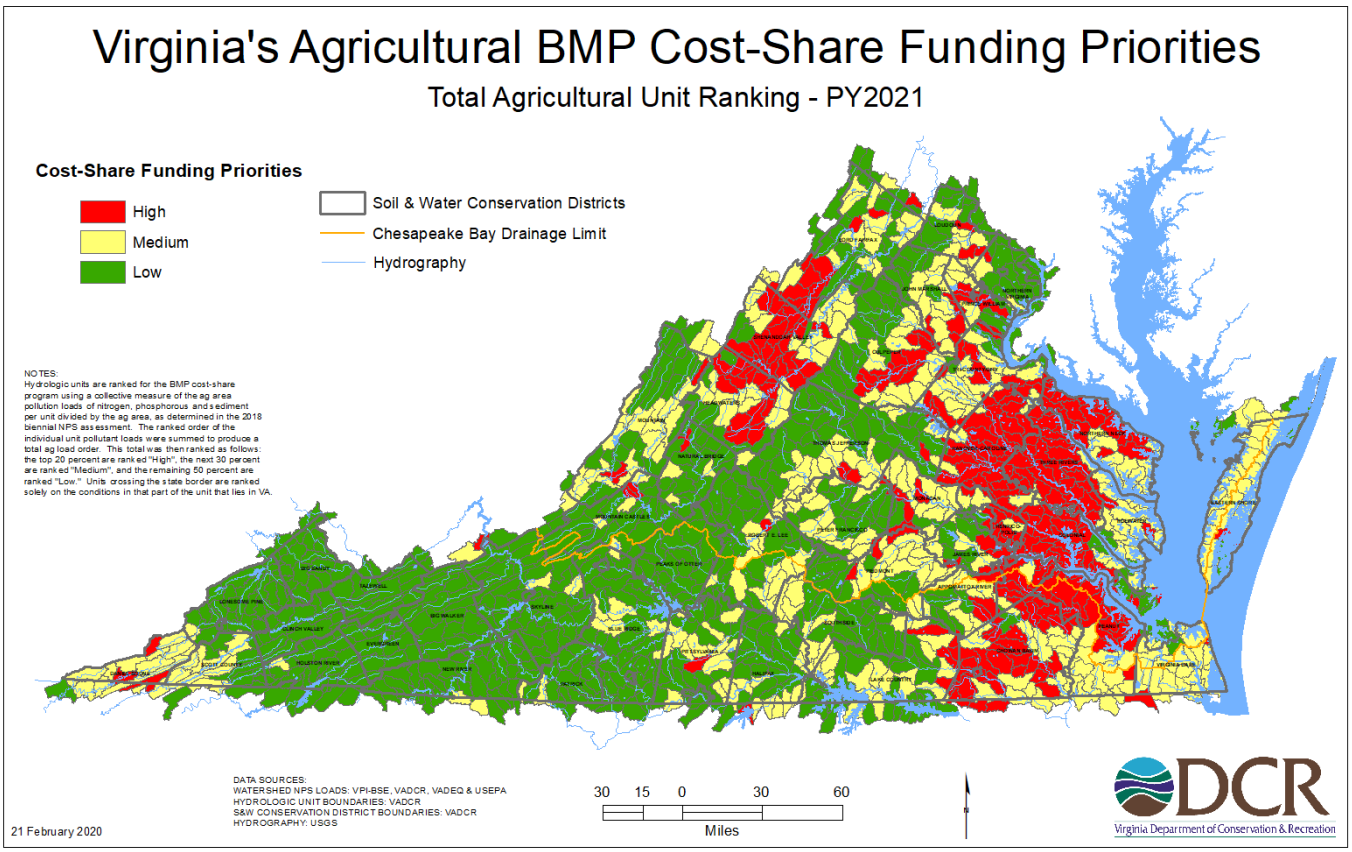


FIGURE 1: Virginia's Agricultural BMP Cost-share Funding Priorities

Utilizing the information in **Attachment C**, the next step is to determine how much of the available cost-share by drainage basin and funding type will be proportioned to H, M, and L HU areas. Percentage allocations are based on providing a high percentage of the funding to the waters with the most pollutant load based on nitrogen, phosphorus, and sediment. For FY21, the H ranked HUs are assigned 50 percent of the cost-share funds. The M ranked HUs are assigned 30 percent of the cost-share funds, while the L ranked HUs are assigned 20 percent of the cost-share funds.

TABLE 6: FY21 Cost-share Allocations by Drainage Basin; Fund Source; and H, M, and L HU Areas*

Program Element	Cost-share Portion Allocated to Lands Exclusively or Partly Within the CB (Surplus)	Cost-share Portion Allocated to Lands Exclusively or Partly Within the CB (Recordation Fee)	Cost-share Portion Allocated to Lands Exclusively OCB (Surplus)	Cost-share Portion Allocated to Lands Exclusively OCB (Recordation Fee)	Totals
VACS (after spending plan distributions – see TABLE 4)	$21,883,977	$2,590,000	$9,378,848	$1,110,000	$34,962,825
H (50%)	$10,941,989	$1,295,000	$4,689,424	$555,000	$17,481,413
M (30%)	$6,565,193	$777,000	$2,813,654	$333,000	$10,488,847
L (20%)	$4,376,796	$518,000	$1,875,769	$222,000	$6,992,565

- Rounded to the nearest dollar.

The H, M, and L multipliers for each District are then applied to the amount of cost-share funds being made available in each drainage basin (CB and OCB) and funding source (Surplus and Recordation fee) as set out in **TABLE 6**. Each District's drainage basin's H, M, and L funds are then accumulated to provide a total funding amount for the cost-share allocation.

The following table shows FY21 District VACS cost-share allocations by drainage basin and under the cost-share total column, provides the cumulative cost-share allocations to each of the Districts.

TABLE 7: FY21 District Cost-share Allocations by Drainage Basin

SWCD	VACS CB Total	VACS OCB Total	FY21 Cost-Share Total (VACS)
APPOMATTOX RIVER	$51,842	$322,751	$374,593
BIG SANDY	$0	$6,609	$6,609
BIG WALKER	$0	$198,179	$198,179
BLUE RIDGE	$19,047	$293,760	$312,807
CHOWAN BASIN	$0	$2,000,000	$2,000,000
CLINCH VALLEY	$0	$322,840	$322,840
COLONIAL	$498,369	$0	$498,369
CULPEPER	$2,553,371	$0	$2,553,371
DANIEL BOONE	$0	$614,597	$614,597
EASTERN SHORE	$560,561	$285,682	$846,243
EVERGREEN	$0	$344,955	$344,955
HALIFAX	$0	$244,269	$244,269
HANOVER-CAROLINE	$1,280,442	$0	$1,280,442
HEADWATERS	$2,244,112	$0	$2,244,112
HENRICOPOLIS	$149,761	$0	$149,761
HOLSTON RIVER	$0	$359,233	$359,233
JAMES RIVER	$194,563	$304,349	$498,912
JOHN MARSHALL	$1,219,985	$0	$1,219,985
LAKE COUNTRY	$0	$654,616	$654,616
LONESOME PINE	$0	$281,610	$281,610
LORD FAIRFAX	$2,265,383	$0	$2,265,383
LOUDOUN	$740,712	$0	$740,712
MONACAN	$509,731	$0	$509,731
MOUNTAIN	$580,124	$0	$580,124
MOUNTAIN CASTLES	$378,179	$23,132	$401,311
NATURAL BRIDGE	$521,522	$0	$521,522
NEW RIVER	$0	$423,159	$423,159
NORTHERN NECK	$1,359,713	$0	$1,359,713
NORTHERN VIRGINIA	$24,289	$0	$24,289
PATRICK	$0	$83,895	$83,895
PEAKS OF OTTER	$41,302	$152,304	$193,606
PEANUT	$750,467	$1,227,795	$1,978,262
PETER FRANCISCO	$561,976	$0	$561,976
PIEDMONT	$757,631	$30,291	$787,923
PITTSYLVANIA	$0	$641,470	$641,470
PRINCE WILLIAM	$235,555	$0	$235,555
ROBERT E. LEE	$490,114	$260,723	$750,838
SCOTT COUNTY	$0	$209,698	$209,698

SHENANDOAH VALLEY	$2,647,219	$0	$2,647,219
SKYLINE	$982	$328,354	$329,337
SOUTHSIDE	$352	$280,230	$280,582
TAZEWELL	$0	$94,936	$94,936
THOMAS JEFFERSON	$1,398,348	$0	$1,398,348
THREE RIVERS	$1,430,883	$0	$1,430,883
TIDEWATER	$346,780	$0	$346,780
TRI-COUNTY/CITY	$620,586	$0	$620,586
VIRGINIA DARE	$40,077	$499,408	$539,485
Grand Total	$24,473,977	$10,488,848	$34,962,825

- Rounded to the nearest dollar.

NOTE: The distribution of cost-share allocations is dependent on income and state finances. See the procedure outlined in Part 13: Criteria for Cost-Share and Technical Assistance for what procedures are implemented should funding availability fall short of appropriation projections.

6. Deputy Director Approved Transfer of Cost-share (and Technical Assistance):

After Grant Agreement issuance, Districts may choose to work with the Department to determine if cost-share allocations should be transferred from one District to another District to maximize water quality improvements. Cost-share shall not be transferred between CB and OCB drainage allocations. Recommended adjustments shall be advanced by Department field personnel through the Division's Central Office to the Deputy Director for consideration as District contract adjustments. A completed Transfer of Virginia Agricultural Best Management Practices Cost-Share Program (VACS) Allocated Cost-Share Funds Form 199-225 (Form) from the affected Districts will be required to document their approval of the recommended transaction. The completed Form regarding reallocations/transfers shall be routed to the Comptroller to update the Department's records. For amounts already distributed to Districts, funds shall be returned back to the Department, or deducted from the next quarterly FY21 disbursement(s) for redistribution to the approved receiving District (accordingly such funds shall not be directly sent between Districts). A proportional amount of Technical Assistance shall be transferred with the cost-share funds; however, cost-share funds may be voluntarily transferred between two Districts without a proportional amount of technical assistance funds if both the donor and recipient District Boards agree, by formally adopted motions, to such transfer. Such motions and all documentation required to execute the voluntary transfer of cost-share must be submitted to the Department prior to June 31, 2021. All transferred cost-share funds will be subject to the recipient District's ninety percent (90%) obligation requirement for their total VACS allocation as set out in Section 9 – Reallocation of cost-share funds.

Additionally, should a District decline a recommended cost-share allocation, technical assistance allocations may also be reduced accordingly if such an allocation has been recommended. Aside from transfers of funds approved under this Section, no other movements of cost-share or technical assistance funding may occur between Districts.

7. Targeting the Expenditure of Cost-share Funds in each District to Maximize Water Quality Improvements:

Once cost-share has been allocated to Districts, cost-share expenditures within Districts, in accordance with the VACS mission (See Part 2), should be targeted towards maximizing nutrient and sediment reductions by implementing the most cost-effective BMPs possible in locations that achieve the greatest pollutant reductions on a field by field basis. The VACS Program gives Districts the responsibility to determine the recipients of

state cost-share funds. The better the Districts recruit and evaluate applications, the more successful the local program will be at improving local water quality. Participants are to be recruited based upon those primary and secondary factors, which most influence their existing land uses impact upon water quality. The objective of the VACS Program is to solve water quality problems by fixing the worst problems first on a field by field basis. The 2020 agricultural non-point source ranking of the National Watershed Boundary Dataset units (VAHU6) currently provides the most accurate identification at a landscape scale, of the lands with the greatest potential to contribute agricultural non-point source pollution into Virginia's rivers and streams.

Statewide water quality considerations shall be used by all Districts to qualify cost-share applications for District Board consideration for funding. Districts should prioritize the implementation of appropriate BMPs that will reduce the greatest amount of nutrient and sediment contamination while utilizing the least amount of cost-share funds to address site-specific water quality problems in identified HU priority watersheds with all program cost-share funds. Any application that does not meet at least one of the priority considerations listed below shall not receive funding:

1. Applications for cost-share funding that are located within a designated NPS impaired waters drainage area (identified as *Impairment Type* in the AgBMP Tracking Module mapping) shall be prioritized for funding of practices that reduce the identified impairment types (nutrient, bacteria, septic)..

2. Applications for cost-share funding on fields that are at least 1/3 HEL (Highly Erodible Land) soils receive priority.

3. Applications for cost-share to implement BMPs that are within an approved Virginia Resource Management Plan management area will also receive priority consideration over similar BMPs outside of the management area. The AgBMP Tracking Module will automatically calculate a 10% reduction in the CEF score for these BMPs.

Exceptions to the priority considerations may be made for animal waste management practices and for actions taken to protect groundwater, gully erosion, or critical areas. The following list of practices are priorities and do not need to meet any other priority consideration in order to be eligible for cost-share funding:

Animal Waste Control Facilities (WP-4)
Dairy Loafing Lot Management System (WP-4B)
Composter Facilities* (WP-4C)
Permanent Vegetative Cover on Critical Areas (SL-11)
Nutrient Management Plan Writing and Revisions (NM-1A)
Sod Waterway (WP-3)
Small Grain Cover Crop and Mixed Cover Crop for Nutrient Management and Residue Management (SL-8B)
Stream Exclusion with Grazing Land Management (SL-6N or SL-6W)
Grass Filter Strips (WQ-1)
Sediment Retention, Erosion or Water Control Structure (WP-1)
Precision Nutrient Management on Cropland – Nitrogen Application (NM-5N)
Precision Nutrient Management on Cropland – Phosphorus Application (NM-5P)
Woodland Buffer Filter Area (FR-3)
Feeding Pad* (WP-4FP)
Animal Waste Control Facility for Confined Livestock Operations (WP-4LC)
Loafing Lot Management System with Manure Management (Excluding Bovine Dairy) (WP-4LL)
Seasonal Feeding Facility with Attached Manure Storage (WP-4SF)

*WP-4C and WP-4FP may only be treated as priority practices if they are a part of a combined contract that also funds a SL-6N, SL-6W, or WP-4.

Further, a set of Secondary considerations that identify the local District Board's water quality improvement focus shall be developed by the District Board. The District shall submit their Secondary Considerations to the Department prior to the beginning of the fiscal year and receive Department approval prior to the District approving cost-share applications. These secondary considerations are utilized by Districts to prioritize applications that address locally identified water quality concerns. Secondary considerations should be narrative statements that are easily understood by any potential participant and that assist District Boards in ranking cost-share applications based upon which practice implementation will provide the greatest amount of local water quality improvement. The District shall be expected to abide by these policies throughout the entire program year so that each application is ranked to receive funding based upon the anticipated water quality benefits. Examples of potential secondary considerations may be found in the *Program Year 2021 Virginia Agricultural Cost Share (VACS) BMP Manual*.

Additionally, for Districts within the CB, Districts shall give priority to BMPs addressed within the Virginia Chesapeake Bay Watershed Implementation Plan; for Districts OCB, priority shall be given to BMPs in the highest priority agricultural TMDL watersheds (as ranked by the Department; H, M, and L). BMPs within fields covered by a Resource Management Plan shall also receive priority.

Districts shall be prepared to verify and document that their cost-share allocations are being spent in accordance with the priority considerations, their approved secondary considerations, and in accordance with the *Program Year 2021 Virginia Agricultural Cost Share (VACS) BMP Manual*.

Each District shall, when comparing projects for cost-share funding, utilize the Conservation Efficiency Factor (CEF). A CEF is calculated by the AgBMP Tracking Module and uses eleven different components, including installation costs and soil loss data that is input by the District, as well as the environmental information associated with the location of the practice to generate a factor that can be used to rank the proposed practice compared with other instances of the same BMPs as well as instances of other BMPs (See **TABLE 8**). Although the CEF can be used to rank different BMPs it will more accurately rank different BMPs that are oriented toward reduction of the same contaminate with the lower the value the more preferred the project.

The relative weights of **TABLE 8** reflect the weight distribution of the CEF components for practices where every component is used in the final CEF calculation. For many practices one or more of these components is not used and the relative weights of the point variables that are used will therefore be proportionally increased. Details on this procedure may be found in a Department discussion document titled *Assignment of Priority Values to BMP Instances at the Time of District ACSTP Data Entry*.

TABLE 8: CEF Ranking Components and Values

Ranking Component	Relative Weight	Value Range	Point or Credit Variable	Assigned Rank Points
Deliverable Sediment Reduction Cost Efficiency points	13.33	not calculated / equation results	DSEDXCE_P	0 / 1 - 10
Priority Practice points	17.33	yes / maintenance / no	PRI_P	1 / 9 / 13
NPS Ag Priority Hydrologic Unit points	17.33	not used / Ag Priorities SUM Order	NPSAG_P	0 / 1 - 13

NPS Biological Priority HU credit	5.33	2+ flags / 1 flag / none	NPSBIO_C	-4 / -2 / 0
Ag Bacteria Impairment Area points	5.29	Not used/7/6/5/4/3/2/1/0	BIMP_P	0 / 1 / 2 / 1 / 2 / 1 / 4 / 1 / 4
Ag Nutrient Impairment Area points	5.29	Not used/7/6/5/4/3/2/1/0	NIMP_P	0 / 1 / 1 / 3 / 3 / 1 / 1 / 4 / 4
Septic Impairment Area points	5.29	Not used/7/6/5/4/3/2/1/0	SIMP_P	0 / 1 / 1 / 1 / 1 / 2 / 3 / 2 / 4
Chesapeake Bay Program Efficiency credit	4.00	>50% / 35-50% / <35% / not reported	CBEFF_C	-3 / -2 / -1 / 0
Practice Contract Period points	6.61	1 - 10	PCP_P	1 - 5
Installation Cost Efficiency points	20.00	not calculated / equation results	ICE_P	0 / 1 - 15
Environmental Preferences credit	see discussion document	not calculated / equation results	ENV_C	0 / -7 - 0

Final approval of practice funding is the responsibility of the local District Board of Directors. All actions taken must be voted upon and the outcome recorded in the minutes of the meeting where such action is taken. Districts should be prepared to verify and document that their cost-share allocations are being spent in accordance with their priority and secondary considerations and in accordance with the *Program Year 2021 Virginia Agricultural Cost Share (VACS) BMP Manual*.

Any application must meet appropriate technical agency standards and specifications of that practice before cost-share payment is made. Payment is issued after the participant and technical representative have certified practice installation in their Virginia BMP Incentives Contract. The amount of the cost-share payment is calculated based upon the estimated cost or total actual cost whichever is less. When completed practices are scheduled for combined funding from a District and other sources, the District cost-share payment must reflect the balance due (not to exceed the amount approved by the District for the cost-share payment) after payment has been approved or issued by the other sources. Total combined state VACS, federal, and any other funding source cost-share payments must not exceed the amount allowed within the *Program Year 2021 Virginia Agricultural Cost Share (VACS) BMP Manual*, this Policy, or by written directive of the Director.

Department personnel will confer with District staff at least quarterly to determine their projected needs for cost-share payments for projected completed BMPs. Department personnel will generate a disbursement letter based upon the projected needs and AgBMP Tracking Module data showing obligations.

8. Cost-share Funding Caps:

For FY21, the VACS applicant cost-share limit or "cap" is $100,000/applicant/year. This cap is automatically monitored for any applicant across Districts based upon data available from within the AgBMP Tracking Module.

- Each District Board may establish an applicant cost-share limit or "cap" for the program year which may not exceed the program applicant cost-share limit. Applicants may receive the amount of the District established cost-share limits or "caps" for implemented BMPs as long as the amount does not exceed the established programmatic cost-share limit or "cap". This cap is automatically monitored for any

applicant across Districts based upon data available from within the AgBMP Tracking Module. Districts may view all approved cost-share funds for a participant by utilizing the "participant's contracts" button. This authority to set District cost-share limits in accordance with the provisions of this paragraph does not extend to RMP-1 and RMP-2 practices.

- Cost-share funds received for RMP-1 and RMP-2 practices do not count against or otherwise affect an applicant's annual cost-share cap for other specified practices.
- A producer may be eligible to receive a variance from the cap for the following practices or combination of practices:
    - SL-6W;
    - WP-4;
    - WP-4B;
    - WP-4LC;
    - WP-4LL;
    - WP-4SF;
    - WP-4/WP-4C combination projects;
    - SL-6N/SL-6W combination projects;
    - SL-6N/WP-4FP combination projects;
    - SL-6N/WP-4SF combination projects;
    - SL-6W/WP-4FP combination projects; and
    - SL-6W/WP-4SF combination projects.
- However, if producer is approved for such a variance, he is not eligible for any additional cost-share funds for any other cost-share practices.

State participant caps are based upon the fiscal year that the practice is approved rather than the fiscal year in which the cost-share payment is distributed. This allows each participant to maximize the amount of cost-share that they may receive in each fiscal year.

9. Reallocation of Cost-Share:

Following the end of each fiscal year, the Board shall reallocate (redistribute) unobligated VACS allocations, including unobligated funds from prior fiscal years, and unobligated CREP or RCPP funds (keeping cost-share within the drainage basin it was originally allocated within) at its next scheduled meeting. These funds will be used for VACS programmatic priorities which may include funding for Chesapeake Bay Watershed Implementation Plan implementation or targeted agricultural BMPs. VACS funds that have not been approved by the District's Board of Directors at the end of the fourth quarter of the fiscal year (June 30, 2021) to fund an existing cost-share application are considered to be unobligated.

Data collected from the budget summary page of the Virginia AgBMP Tracking Module (Tracking Module) will be analyzed to identify those Districts that have obligated ninety percent (90%) or more of their Total VACS allocation. The percent of their VACS allocation obligated will be identified by dividing the "Obligated" amount by the "Allocation" amount. For those Districts that did not obligate at least ninety percent (90%) of their Total VACS allocation by June 30, 2021, unobligated cost-share funds will be summed and all of a District's unobligated VACS funds will be reallocated. This includes amounts already distributed to Districts for which a project has since been discontinued (which shall be reverted back to the Department; such funds shall not be directly sent between Districts) as well as VACS funds still being held by the Department for which there are no pending obligations against it. Technical assistance funding shall proportionally be transferred with the reallocated cost-share.

Reallocation cost-share amounts and the associated technical assistance amounts shall be specifically noted in cost-share disbursement letters to Districts and become part of the financial record.

10. Allocation Process for Technical Assistance:

Technical Assistance funds are made available to Districts by the Department for VACS Program implementation by District technical staff. FY21 technical assistance fund allocations approved in the amount $4,528,636 represents a base allocation for FY21 for technical assistance. Technical assistance funding provided in addition to the base $4,528,636 will be distributed proportionally to the allocation of cost-share funding provided. Results for FY21 (Total Technical assistance allocations by District) are presented in **TABLE 9**. In future years, should technical assistance amounts available fall below the $4,528,636 base level, total technical assistance to Districts would be proportionally reduced.

TABLE 9: FY21 Technical Assistance Computations and District Allocations

SWCD	FY21 Cost-Share Total (VACS)	Proportional Multiplier	FY21 TA Addition to the FY21 TA Base	FY21 TA Base	FY21 Total Technical Assistance Allocated
APPOMATTOX RIVER	$374,593	0.010714026	$14,157	$43,200	$57,357
BIG SANDY	$6,609	0.000189019	$250	$35,000	$35,250
BIG WALKER	$198,179	0.005668275	$7,490	$35,000	$42,490
BLUE RIDGE	$312,807	0.008946839	$11,822	$50,705	$62,527
CHOWAN BASIN	$2,000,000	0.057203615	$75,587	$82,552	$158,139
CLINCH VALLEY	$322,840	0.009233808	$12,201	$91,258	$103,459
COLONIAL	$498,369	0.014254249	$18,835	$122,536	$141,371
CULPEPER	$2,553,371	0.073031029	$96,501	$406,018	$502,518
DANIEL BOONE	$614,597	0.017578599	$23,228	$117,869	$141,097
EASTERN SHORE	$846,243	0.024204079	$31,982	$82,308	$114,290
EVERGREEN	$344,955	0.009866337	$13,037	$79,624	$92,661
HALIFAX	$244,269	0.006986544	$9,232	$86,131	$95,363
HANOVER-CAROLINE	$1,280,442	0.036622944	$48,392	$126,206	$174,598
HEADWATERS	$2,244,112	0.064185659	$84,813	$206,513	$291,325
HENRICOPOLIS	$149,761	0.004283436	$5,660	$54,938	$60,598
HOLSTON RIVER	$359,233	0.010274713	$13,577	$128,066	$141,643
JAMES RIVER	$498,912	0.014269799	$18,856	$35,000	$53,856
JOHN MARSHALL	$1,219,985	0.034893781	$46,107	$182,000	$228,107
LAKE COUNTRY	$654,616	0.018723195	$24,740	$60,725	$85,465
LONESOME PINE	$281,610	0.008054555	$10,643	$63,000	$73,643
LORD FAIRFAX	$2,265,383	0.064794044	$85,617	$164,808	$250,425
LOUDOUN	$740,712	0.021185712	$27,994	$160,000	$187,994
MONACAN	$509,731	0.014579215	$19,264	$110,400	$129,664
MOUNTAIN	$580,124	0.016592608	$21,925	$44,000	$65,925
MOUNTAIN CASTLES	$401,311	0.011478222	$15,167	$36,800	$51,967
NATURAL BRIDGE	$521,522	0.014916469	$19,710	$92,738	$112,448
NEW RIVER	$423,159	0.012103112	$15,993	$61,081	$77,073
NORTHERN NECK	$1,359,713	0.038890260	$51,388	$118,400	$169,788
NORTHERN VIRGINIA	$24,289	0.000694702	$918	$35,000	$35,918

PATRICK	$83,895	0.002399548	$3,171	$44,146	$47,316
PEAKS OF OTTER	$193,606	0.005537490	$7,317	$38,400	$45,717
PEANUT	$1,978,262	0.056581868	$74,765	$127,680	$202,445
PETER FRANCISCO	$561,976	0.016073528	$21,239	$69,816	$91,055
PIEDMONT	$787,923	0.022536008	$29,778	$73,200	$102,978
PITTSYLVANIA	$641,470	0.018347211	$24,243	$35,000	$59,243
PRINCE WILLIAM	$235,555	0.006737290	$8,902	$44,096	$52,998
ROBERT E. LEE	$750,838	0.021475313	$28,377	$96,800	$125,177
SCOTT COUNTY	$209,698	0.005997738	$7,925	$90,000	$97,925
SHENANDOAH VALLEY	$2,647,219	0.075715252	$100,047	$251,053	$351,100
SKYLINE	$329,337	0.009419623	$12,447	$148,800	$161,247
SOUTHSIDE	$280,582	0.008025163	$10,604	$35,000	$45,604
TAZEWELL	$94,936	0.002715336	$3,588	$51,520	$55,108
THOMAS JEFFERSON	$1,398,348	0.039995281	$52,848	$169,674	$222,522
THREE RIVERS	$1,430,883	0.040925833	$54,078	$98,524	$152,602
TIDEWATER	$346,780	0.009918548	$13,106	$67,840	$80,946
TRI-COUNTY/CITY	$620,586	0.017749874	$23,454	$127,400	$150,854
VIRGINIA DARE	$539,485	0.015430251	$20,389	$47,814	$68,203
Grand Total	$34,962,825	1.000000000	$1,321,364	$4,528,636	$5,850,000

- Rounded to the nearest dollar.

FY21 Technical Assistance allocations (See **TABLE 9**) shall be disbursed to Districts over FY21 in accordance with the following procedures. During the first quarter of FY21, after the Fourth Quarter FY20 reports have been submitted (including the District's End of Year Cash Balance Report, and Carry Over Report) to the Department and the Grant Agreement has been executed and the original signed Agreement returned to the Department, twenty-five percent of the technical assistance allocations shall be disbursed, with an additional twenty-five percent disbursed in each of the second, third, and fourth quarters provided updates to the AgBMP Tracking Module are being entered monthly to the satisfaction of the Department. Except due to extenuating circumstances or as otherwise set out in the Grant Agreement, disbursements to Districts will be executed within 45 calendar days following the beginning of a quarter contingent upon the satisfactory completion of database updates and the receipt of complete and accurate reports.

Should new FY21 funding be transferred between Districts or reallocated, technical assistance funds noted in the column "FY21 TA Addition to the FY21 TA Base" shall proportionally be transferred with the cost-share.

11. Noncompliance with this Policy:

In the event any District fails to comply with the provisions of this Policy, the Department reserves the right to require repayment of previously issued funds and/or direct further appropriate actions based upon noncompliance circumstances. Should an issue arise that impacts funding, the affected District(s) will be apprised of the issue(s) and will be provided an opportunity to address the concerns to the Department prior to Department action**.**

12. Unexpended State Funds Maintained by Districts:

If the District has obligated ninety percent (90%) or more of its cost-share allocation by June 30, 2021, FY21 technical assistance shall remain with the District. If the District has obligated less than ninety percent (90%) of its cost-share allocation, then all funds will be returned to the Department for reallocation in accordance with Section 9. However, it is unadvisable for any District to accumulate more than six months of Technical Assistance funds. Public funds from local, state, and federal sources are provided to Districts not for savings, but for performance of conservation and other required deliverables. The Department will monitor the growth of unexpended funds through audit reports and other fiscal reports generated by or at the request of the Department. The Department may reduce future funding to Districts that fail to act upon guidance and recommendations from auditors and the Department. Decisions and Department actions will be addressed on a case-by-case basis working with the affected District.

13. Criteria for Cost-share and Technical Assistance:

Funding allocated to Districts as cost-share and technical assistance is contingent upon appropriations by the General Assembly. Should funding availability fall short of appropriation projections during the course of FY21, after the Department has utilized all unallocated and unobligated balances it may have available (such as CTI), every District will receive an equal percent reduction which will be calculated and deducted from each District's unobligated total approved cost-share and technical assistance funding specified within the Department/District Grant Agreement. When a reduction of funds is necessary, the Department will make reductions from available unobligated cost-share first and reduce technical assistance last. Should a reduction of funds occur, every District must return funding within 30 days of receiving notice of such reduction from the Department. Should all cost-share and technical assistance funding within a District be obligated and it becomes necessary to reduce such funds, then adjustments will be made to the next fiscal year's spending plan to honor existing commitments from the prior fiscal year first or during reallocation as determined by the Department. The Department shall refer to working papers for fund source allocations for cost-share and for technical assistance to guide reductions as may be necessary.

In the event a new District is formed or an existing District alters its boundaries, the Board will examine the total financial resources under its control and its priorities for use of these funds and adhere to its Policy titled Financial Commitments For Establishment of a New Soil & Water Conservation District (SWCD/district), or Realignment of an Existing District on all funding decisions in this Policy. The newly created or altered District may be funded at a reduced level, or may be required to share funding in an arrangement determined by the Board until sufficient funding is made available to fulfill provisions of this Policy and priorities of the Board.

Expenditure of District funds, regardless of source, will be made without regard to any person's race, color, religion, sex, age, national origin, handicap, or political affiliation.

All funds received by Districts are public funds and provisions of the Freedom of Information Act shall apply to financial records, unless otherwise specified within the Act or elsewhere in the *Code of Virginia*. Each District shall safeguard, provide accountability, and expend funds only for approved purposes.

14. Electronic Copy:

An electronic copy of this Policy guidance in PDF format is available on the Department of Conservation and Recreation's website at http://www.dcr.virginia.gov/laws-and-regulations/lr8b.

15. Contact Information:

Please contact the Department of Conservation and Recreation's Soil and Water Conservation Division by calling the Division's administrative support at 804-225-3653 with any questions regarding the application of this Policy. The call shall be referred to program staff accordingly.

16. Authorization:

Upon the approval of this Policy, the Department shall, in accordance with its fiduciary powers and responsibilities, make and enter into any and all Grant Agreements and contracts, and take all actions necessary, to fully implement and administer this Policy.

17. Adoption, Amendments, and Repeal:

This document supersedes the Policy titled Policy and Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Funding Allocations (Fiscal Year 2021) adopted June 3, 2020 and will remain in effect until rescinded or superseded.

Attachment A

Computer Model Estimates and Ranks Based on the 2020 305(b) Report Data of the Agricultural Pollutant Loads of Nitrogen (N), Phosphorus (P), and Sediment (S) in Each of the 1,240 6th Level Hydrologic Units (HU)

(kg/Ag ha-yr – kilograms per agricultural hectare per year; mt/Ag ha-yr – metric tons per agricultural hectare per year)

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CU56	57.0906	3.2177	1.3446	1197	1206	1169	3572	HIGH	1
CU60	54.6423	2.0039	1.3303	1190	1186	1166	3542	HIGH	2
CU57	53.9809	1.9825	1.1573	1184	1182	1126	3492	HIGH	3
CU58	47.1117	1.7212	1.4546	1165	1144	1178	3487	HIGH	4
CU38	47.9341	1.7514	1.2791	1168	1152	1156	3476	HIGH	5
YO52	44.5057	1.6763	1.4145	1155	1134	1174	3463	HIGH	6
YO54	48.5793	1.7113	1.2560	1170	1141	1149	3460	HIGH	7
JL37	44.1580	1.7385	1.2741	1153	1150	1155	3458	HIGH	8
CU59	51.7938	1.9896	1.0337	1179	1184	1086	3449	HIGH	9
PL69	34.7177	1.8395	2.8560	1061	1164	1215	3440	HIGH	10
PL49	41.8118	1.5037	2.5720	1132	1087	1213	3432	HIGH	11
CU55	50.0166	1.8039	1.0555	1174	1158	1097	3429	HIGH	12
YO51	40.1678	1.5643	1.6355	1121	1102	1195	3418	HIGH	13
PS23	29.7067	1.9862	2.3056	1012	1183	1211	3406	HIGH	14
YO50	42.5954	1.6407	1.1926	1140	1123	1133	3396	HIGH	15
YO53	39.0687	1.5290	1.8671	1100	1093	1202	3395	HIGH	16
JL29	54.0861	1.8737	0.9249	1186	1168	1019	3373	HIGH	17
RA53	39.2499	1.4286	1.9376	1101	1060	1204	3365	HIGH	18
PS20	28.9382	1.8691	1.5694	1005	1167	1191	3363	HIGH	19

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JL35	38.6208	1.4983	1.4547	1094	1085	1179	3358	HIGH	20
YO48	37.8011	1.4884	1.5176	1087	1080	1186	3353	HIGH	21
CM26	39.9039	1.6494	1.0771	1118	1124	1110	3352	HIGH	22
JL36	50.2267	1.8909	0.9039	1176	1171	1003	3350	HIGH	23
AS03	64.4575	2.4437	0.8422	1202	1202	944	3348	HIGH	24
PL67	30.9765	1.6798	1.4541	1020	1135	1177	3332	HIGH	25
JL15	37.9151	1.3702	1.5275	1091	1048	1187	3326	HIGH	26
CU31	46.7326	2.1502	0.8558	1163	1194	967	3324	HIGH	27
YO59	37.8435	1.3849	1.4854	1089	1050	1184	3323	HIGH	28
PL66	30.3576	1.6154	1.4858	1017	1118	1185	3320	HIGH	29
PS16	27.0733	1.7653	1.4549	987	1153	1180	3320	HIGH	30
PS19	25.3926	1.6632	1.9626	974	1128	1207	3309	HIGH	31
JL10	43.1923	1.4969	1.0168	1145	1084	1077	3306	HIGH	32
CU44	55.9192	2.3749	0.8075	1194	1200	908	3302	HIGH	33
PS32	28.1790	1.9479	1.1366	996	1175	1119	3290	HIGH	34
CU34	44.0795	1.5828	0.9369	1151	1106	1028	3285	HIGH	35
PS22	24.1037	1.5994	1.9406	965	1111	1205	3281	HIGH	36
YO61	41.5892	1.4706	1.0026	1131	1072	1070	3273	HIGH	37
PS15	25.6248	1.5407	1.8510	976	1095	1200	3271	HIGH	38
JL05	36.6336	1.3881	1.2203	1076	1051	1141	3268	HIGH	39
JL32	36.9189	1.3976	1.2068	1078	1053	1136	3267	HIGH	40
CB07	39.8302	1.5811	0.9459	1117	1105	1032	3254	HIGH	41
RA54	38.7744	1.4039	1.0689	1096	1054	1104	3254	HIGH	42
JL03	37.5567	1.4132	1.0632	1086	1057	1102	3245	HIGH	43
YO37	36.5980	1.3119	1.2386	1074	1024	1146	3244	HIGH	44

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CU41	36.3942	1.3912	1.0926	1072	1052	1113	3237	HIGH	45
AO23	37.3090	1.4619	1.0291	1082	1070	1082	3234	HIGH	46
JL39	39.6577	1.5895	0.9138	1111	1107	1010	3228	HIGH	47
JL25	34.6787	1.2763	1.2707	1057	1015	1153	3225	HIGH	48
JL27	32.5722	1.2085	1.6978	1033	992	1198	3223	HIGH	49
JL41	41.9926	1.6749	0.8507	1134	1132	956	3222	HIGH	50
RA59	35.9737	1.2567	1.2148	1068	1004	1140	3212	HIGH	51
YO55	40.0262	1.4043	0.9487	1120	1055	1036	3211	HIGH	52
JA36	31.4550	1.2143	1.5479	1025	995	1189	3209	HIGH	53
PL73	31.6193	1.5487	1.0248	1026	1099	1080	3205	HIGH	54
JL43	56.4708	2.0791	0.6949	1195	1189	819	3203	HIGH	55
CM19	33.2427	1.2694	1.2461	1042	1011	1147	3200	HIGH	56
CU37	36.1146	1.3489	1.0402	1071	1035	1091	3197	HIGH	57
YO49	32.6889	1.2987	1.2096	1037	1022	1137	3196	HIGH	58
JL24	33.2638	1.3187	1.1574	1043	1025	1127	3195	HIGH	59
PL53	29.9240	1.1491	2.5326	1014	969	1212	3195	HIGH	60
CM20	49.5478	1.8099	0.7333	1173	1160	843	3176	HIGH	61
JL30	35.0550	1.3025	1.0361	1063	1023	1088	3174	HIGH	62
PS25	21.8098	1.4369	1.3144	945	1063	1161	3169	HIGH	63
PL18	40.9909	1.6107	0.8274	1124	1114	930	3168	HIGH	64
PS26	23.4794	1.3687	1.3216	957	1047	1164	3168	HIGH	65
YO63	39.2732	1.3494	0.9332	1102	1036	1027	3165	HIGH	66
JL31	39.5804	1.4486	0.8780	1110	1068	983	3161	HIGH	67
YO35	34.7153	1.1392	1.1815	1059	965	1131	3155	HIGH	68
JL26	28.4902	1.0907	1.8569	1000	953	1201	3154	HIGH	69

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JL01	32.6233	1.2493	1.0799	1036	1000	1112	3148	HIGH	70
RA57	32.0317	1.1859	1.1695	1030	986	1128	3144	HIGH	71
PL17	33.2641	1.3558	0.9844	1044	1038	1060	3142	HIGH	72
RA43	25.9309	1.1533	1.5520	979	973	1190	3142	HIGH	73
RA39	35.5309	1.5092	0.8695	1065	1089	980	3134	HIGH	74
YO57	37.5540	1.3397	0.9243	1085	1032	1017	3134	HIGH	75
PS11	22.2830	1.4066	1.1705	947	1056	1129	3132	HIGH	76
YO36	39.9374	1.4173	0.8471	1119	1058	954	3131	HIGH	77
YO62	28.1551	1.0432	1.6442	995	937	1196	3128	HIGH	78
RA55	35.4761	1.2913	0.9600	1064	1019	1044	3127	HIGH	79
JU40	23.9551	1.0694	3.7812	964	945	1216	3125	HIGH	80
PS05	18.7421	1.4664	1.1773	920	1071	1130	3121	HIGH	81
CM18	29.2605	1.1276	1.2710	1008	958	1154	3120	HIGH	82
JL22	31.9725	1.1568	1.0733	1029	976	1107	3112	HIGH	83
PL72	28.4446	1.4329	0.9654	998	1061	1053	3112	HIGH	84
PS56	19.5297	1.3669	1.2268	926	1044	1142	3112	HIGH	85
YO29	43.2315	1.5535	0.7530	1146	1100	863	3109	HIGH	86
JL14	36.9890	1.3597	0.8916	1079	1040	989	3108	HIGH	87
YO58	34.5829	1.2696	0.9577	1055	1012	1041	3108	HIGH	88
PS14	21.7059	1.6750	0.9424	944	1133	1029	3106	HIGH	89
PS33	18.5534	1.3565	1.2692	916	1039	1151	3106	HIGH	90
PS21	20.6843	1.2514	1.3369	937	1001	1167	3105	HIGH	91
PL71	31.2622	1.6152	0.8535	1022	1117	961	3100	HIGH	92
PL38	33.0502	1.3342	0.9430	1038	1029	1031	3098	HIGH	93
CU45	43.7368	2.4166	0.6539	1150	1201	744	3095	HIGH	94

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RA60	36.0444	1.2548	0.9280	1070	1002	1023	3095	HIGH	95
RD68	23.8256	1.0899	1.4740	961	952	1181	3094	HIGH	96
YO56	34.5774	1.2678	0.9429	1054	1009	1030	3093	HIGH	97
CU18	39.5354	1.4846	0.8047	1108	1078	906	3092	HIGH	98
YO46	28.1382	1.1528	1.1517	994	972	1123	3089	HIGH	99
CM24	39.5630	1.4898	0.7949	1109	1082	897	3088	HIGH	100
PS03	18.6902	1.5419	1.0073	918	1096	1073	3087	HIGH	101
JL23	31.4244	1.1748	1.0096	1024	982	1075	3081	HIGH	102
JL33	39.3057	1.5097	0.7847	1103	1090	888	3081	HIGH	103
JL46	41.2024	1.6942	0.6855	1128	1139	807	3074	HIGH	104
CB08	42.1367	1.5595	0.7238	1136	1101	836	3073	HIGH	105
CU15	24.2390	1.1222	1.2047	967	957	1135	3059	HIGH	106
JL40	39.6867	1.6141	0.7042	1115	1115	829	3059	HIGH	107
CU43	36.0371	1.2758	0.8647	1069	1014	975	3058	HIGH	108
CU39	45.3626	1.6544	0.6650	1158	1125	774	3057	HIGH	109
JL06	37.8977	1.3360	0.8365	1090	1030	937	3057	HIGH	110
YO60	35.0228	1.2628	0.8812	1062	1007	984	3053	HIGH	111
YO26	34.1761	1.3364	0.8572	1053	1031	968	3052	HIGH	112
PS59	17.5152	1.2010	1.2693	898	990	1152	3040	HIGH	113
JL09	39.0400	1.3408	0.8053	1098	1033	907	3038	HIGH	114
RA20	29.2314	1.0719	1.0226	1007	947	1079	3033	HIGH	115
PS58	18.2874	1.1801	1.2118	911	983	1138	3032	HIGH	116
RA38	27.4293	1.3191	0.9192	991	1026	1014	3031	HIGH	117
PL68	28.8586	1.5470	0.8224	1003	1098	927	3028	HIGH	118
YO32	33.1232	1.1566	0.9168	1040	975	1012	3027	HIGH	119

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
YO47	34.7078	1.3839	0.8182	1058	1049	920	3027	HIGH	120
CU52	29.8359	1.1343	0.9637	1013	960	1050	3023	HIGH	121
CU35	41.8669	1.5012	0.6840	1133	1086	803	3022	HIGH	122
RA21	29.4258	1.3687	0.8523	1010	1046	958	3014	HIGH	123
CU61	47.3479	1.8388	0.6088	1166	1163	682	3011	HIGH	124
CU33	50.7175	1.8626	0.5974	1177	1165	668	3010	HIGH	125
RA40	25.1559	1.1915	0.9592	971	988	1042	3001	HIGH	126
RA56	36.4479	1.3426	0.7933	1073	1034	894	3001	HIGH	127
YO30	24.9482	1.1535	0.9728	969	974	1055	2998	HIGH	128
JL04	30.9577	1.1596	0.9015	1019	977	1000	2996	HIGH	129
YO11	23.2203	1.1394	0.9951	953	966	1064	2983	HIGH	130
JM50	18.8248	0.9569	1.2549	923	911	1148	2982	HIGH	131
YO20	19.8221	0.8760	1.4186	929	877	1175	2981	HIGH	132
PL34	29.3277	1.2678	0.8534	1009	1010	960	2979	HIGH	133
JL11	22.6618	0.8163	1.4812	949	847	1182	2978	HIGH	134
PS87	24.1727	0.9712	1.0377	966	918	1090	2974	HIGH	135
JL20	26.6078	0.9924	0.9760	986	925	1058	2969	HIGH	136
PS10	16.9456	1.1022	1.1572	889	955	1125	2969	HIGH	137
PS55	14.7357	1.1363	1.2335	843	963	1145	2951	HIGH	138
CU42	36.6038	1.3226	0.7354	1075	1028	846	2949	HIGH	139
PL33	27.2833	1.1467	0.8880	990	968	988	2946	HIGH	140
YO42	22.7962	0.9547	1.0262	951	909	1081	2941	HIGH	141
JM62	18.1794	0.7779	1.9749	908	820	1208	2936	HIGH	142
CU48	42.1966	1.5446	0.6197	1137	1097	701	2935	HIGH	143
PS57	16.9884	1.1346	1.0310	890	961	1084	2935	HIGH	144

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
YO10	20.5849	1.0044	1.0056	935	928	1072	2935	HIGH	145
JL42	39.6821	1.6263	0.6150	1113	1121	695	2929	HIGH	146
YO28	25.3412	1.0035	0.9209	973	927	1016	2916	HIGH	147
CU40	37.9597	1.3680	0.6645	1092	1045	773	2910	HIGH	148
JL34	23.7682	0.9471	0.9479	960	907	1034	2901	HIGH	149
CU50	54.1483	1.9913	0.5208	1187	1185	528	2900	HIGH	150
YO27	33.1954	1.2591	0.7411	1041	1005	849	2895	HIGH	151
RA36	20.5343	0.8499	1.0363	934	867	1089	2890	HIGH	152
CM25	28.8899	1.2129	0.7847	1004	994	889	2887	HIGH	153
JA45	25.9256	1.0286	0.8653	978	932	976	2886	HIGH	154
JM15	14.8567	0.8074	1.6186	849	841	1194	2884	HIGH	155
CU47	39.3816	1.4406	0.6281	1104	1064	714	2882	HIGH	156
RA58	31.6525	1.1512	0.7802	1027	971	884	2882	HIGH	157
PS12	13.7461	1.0425	1.1541	810	936	1124	2870	HIGH	158
YO22	18.1619	0.8400	1.0675	907	859	1103	2869	HIGH	159
PU17	16.7299	0.7433	1.4525	886	804	1176	2866	HIGH	160
PS66	13.5559	0.8254	2.1640	804	851	1210	2865	HIGH	161
YO25	21.2052	0.9284	0.9306	940	898	1026	2864	HIGH	162
YO33	23.4600	0.8819	0.9280	956	882	1024	2862	HIGH	163
JL28	27.2268	1.0491	0.8292	989	941	931	2861	HIGH	164
CB24	44.1049	1.6000	0.5545	1152	1112	596	2860	HIGH	165
JL12	22.2936	0.8649	0.9495	948	874	1037	2859	HIGH	166
AS06	93.6074	3.3935	0.4776	1213	1209	433	2855	HIGH	167
CB06	43.6594	1.6197	0.5466	1149	1120	582	2851	HIGH	168
RA62	42.0608	1.4879	0.5791	1135	1079	637	2851	HIGH	169

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CB09	33.7636	1.2609	0.6769	1050	1006	791	2847	HIGH	170
PS34	18.7433	1.4486	0.7486	921	1067	858	2846	HIGH	171
RA29	18.0183	0.8622	0.9990	905	872	1067	2844	HIGH	172
PL70	39.0573	2.0895	0.5324	1099	1190	548	2837	HIGH	173
PS54	18.7483	1.7307	0.6608	922	1148	765	2835	HIGH	174
PS64	17.4732	1.1840	0.8468	896	985	953	2834	HIGH	175
CU25	19.5176	0.7889	1.0009	925	830	1069	2824	HIGH	176
RA65	30.9914	1.1735	0.6966	1021	981	821	2823	HIGH	177
JA13	16.4944	0.8888	0.9691	884	884	1054	2822	HIGH	178
YO09	18.6695	0.9094	0.9109	917	892	1007	2816	HIGH	179
PL16	18.1540	0.7533	1.0588	906	809	1098	2813	HIGH	180
RA18	29.1215	1.1685	0.7035	1006	979	828	2813	HIGH	181
JA40	31.9514	1.2040	0.6772	1028	991	792	2811	HIGH	182
JU50	13.8407	0.7329	1.7039	812	794	1199	2805	HIGH	183
PS09	16.9088	1.1493	0.8418	888	970	942	2800	HIGH	184
RA46	24.3379	0.9577	0.8173	968	913	917	2798	HIGH	185
JU26	17.9665	1.7257	0.6553	904	1146	746	2796	HIGH	186
NE85	15.5110	0.6638	2.6590	861	718	1214	2793	HIGH	187
RA51	33.0735	1.2548	0.6562	1039	1003	750	2792	HIGH	188
CM21	56.7726	2.0533	0.4566	1196	1188	396	2780	HIGH	189
PS39	13.2448	1.1717	0.9137	791	980	1009	2780	HIGH	190
RD54	15.4413	0.9390	0.9207	859	902	1015	2776	HIGH	191
JL19	28.4362	1.0919	0.6995	997	954	823	2774	HIGH	192
AO15	62.1209	2.1931	0.4411	1201	1196	370	2767	HIGH	193
CU53	22.6669	0.8627	0.8331	950	873	934	2757	HIGH	194

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
PS67	17.0977	1.0770	0.8138	891	948	915	2754	HIGH	195
CM28	41.1682	1.7249	0.4977	1127	1145	479	2751	HIGH	196
RA23	20.1971	0.9728	0.7949	932	919	898	2749	HIGH	197
PS61	14.6255	0.9438	0.9034	838	904	1002	2744	HIGH	198
JL49	55.4092	2.1231	0.4351	1192	1191	360	2743	HIGH	199
CU54	23.8459	0.8892	0.7925	962	885	893	2740	HIGH	200
JA17	13.4748	0.7953	1.0589	800	835	1099	2734	HIGH	201
CB17	38.8188	1.3601	0.5544	1097	1041	595	2733	HIGH	202
JU21	15.3403	0.6637	1.2982	856	717	1159	2732	HIGH	203
RA61	34.7168	1.2274	0.6009	1060	998	674	2732	HIGH	204
PS62	17.4745	1.4433	0.6615	897	1065	766	2728	HIGH	205
RA27	15.6120	0.8356	0.9014	864	858	999	2721	HIGH	206
RA30	16.2940	0.6813	1.0736	877	736	1108	2721	HIGH	207
PL59	21.6686	0.9254	0.7728	943	896	880	2719	HIGH	208
JL16	23.7259	1.0368	0.7001	959	935	824	2718	HIGH	209
PL41	14.5755	0.6681	1.2801	834	724	1157	2715	HIGH	210
PS74	12.8887	0.8432	1.0081	779	862	1074	2715	HIGH	211
CU49	39.4749	1.4462	0.5295	1106	1066	542	2714	HIGH	212
JM72	14.2657	0.6508	1.5355	827	698	1188	2713	HIGH	213
JL13	18.2096	0.6562	1.0523	909	707	1094	2710	HIGH	214
PS63	15.6842	1.3637	0.6810	868	1042	797	2707	HIGH	215
JM49	13.6079	0.7786	1.0162	805	821	1076	2702	HIGH	216
PS28	17.2368	1.1359	0.7361	893	962	847	2702	HIGH	217
PS68	15.9384	1.0446	0.7830	875	938	886	2699	HIGH	218
YO18	16.6929	0.7978	0.8636	885	839	973	2697	HIGH	219

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
PL65	21.8451	0.8982	0.7493	946	889	860	2695	HIGH	220
JM74	14.5880	0.6733	1.1903	835	727	1132	2694	HIGH	221
RA49	25.4767	1.0323	0.6721	975	934	785	2694	HIGH	222
JA21	15.8374	0.7975	0.8745	872	838	981	2691	HIGH	223
YO31	42.7243	1.6066	0.4809	1141	1113	437	2691	HIGH	224
RA50	37.8375	1.4915	0.5102	1088	1083	510	2681	HIGH	225
PL39	25.9540	1.0515	0.6586	981	942	757	2680	HIGH	226
RA37	17.7458	0.8166	0.8229	901	848	928	2677	HIGH	227
PS24	13.4815	1.0885	0.8191	801	950	921	2672	HIGH	228
JM78	14.1055	0.6738	1.1264	820	729	1117	2666	HIGH	229
CU12	20.0744	0.9666	0.6946	931	915	818	2664	HIGH	230
JU68	12.7389	0.8526	0.9278	770	869	1022	2661	HIGH	231
TP08	11.1242	0.7336	1.4838	682	796	1183	2661	HIGH	232
JL47	41.1064	1.6648	0.4601	1125	1129	405	2659	HIGH	233
CU63	42.5750	1.6677	0.4512	1138	1130	388	2656	HIGH	234
CM23	21.0176	0.8194	0.7576	938	849	868	2655	HIGH	235
TP13	17.2150	0.7264	0.8626	892	790	971	2653	HIGH	236
TC34	11.1749	0.7067	1.5870	687	772	1192	2651	HIGH	237
CU28	17.4283	0.6890	0.9087	895	749	1006	2650	HIGH	238
JL07	18.2941	0.6876	0.8989	912	743	995	2650	HIGH	239
YO06	14.2444	0.7213	0.9487	826	789	1035	2650	HIGH	240
PS27	12.6303	0.9130	0.8981	761	894	994	2649	HIGH	241
PS08	13.1564	0.8950	0.8589	788	888	969	2645	HIGH	242
CB02	25.9484	0.9784	0.6491	980	920	740	2640	HIGH	243
JL17	26.2588	1.1126	0.6152	982	956	697	2635	HIGH	244

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
PS51	20.6646	1.9670	0.5166	936	1179	520	2635	HIGH	245
RU75	15.4293	0.7396	0.8626	858	802	972	2632	MED	246
CU64	38.7515	1.5991	0.4734	1095	1110	425	2630	MED	247
CU32	49.2403	1.8053	0.4025	1171	1159	298	2628	MED	248
TP09	11.4124	0.6946	1.3540	703	754	1171	2628	MED	249
CU24	17.9628	0.6977	0.8547	903	758	965	2626	MED	250
JL55	41.1166	2.1893	0.4032	1126	1195	300	2621	MED	251
PL37	23.8871	1.0574	0.6259	963	943	711	2617	MED	252
PL36	21.5209	0.9635	0.6588	942	914	760	2616	MED	253
CU17	31.4175	1.1947	0.5582	1023	989	603	2615	MED	254
JU13	12.4896	0.7042	1.0402	747	768	1092	2607	MED	255
JL08	15.6622	0.6531	0.9505	867	700	1038	2605	MED	256
JM75	12.6064	0.6346	1.3370	756	678	1168	2602	MED	257
PL60	13.8836	0.6238	1.1436	814	665	1121	2600	MED	258
RU93	12.9635	0.6097	1.3577	782	646	1172	2600	MED	259
CU14	18.5367	0.8673	0.6858	914	875	809	2598	MED	260
JM83	15.0352	0.6885	0.9008	852	746	997	2595	MED	261
RL12	14.1598	0.6811	0.9557	822	734	1039	2595	MED	262
JA27	15.1668	0.7373	0.8366	853	801	938	2592	MED	263
PS75	14.6184	0.7819	0.8254	837	824	929	2590	MED	264
RA63	29.9294	1.0824	0.5659	1015	949	621	2585	MED	265
YO13	12.7481	0.7736	0.8947	772	818	992	2582	MED	266
PS31	15.7179	1.2089	0.6343	869	993	719	2581	MED	267
RD70	14.7123	0.6916	0.8853	841	751	986	2578	MED	268
PS53	17.6391	1.6605	0.5339	900	1127	550	2577	MED	269

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CB11	26.3164	0.9830	0.5982	984	922	670	2576	MED	270
JU37	11.1303	0.6928	1.2123	683	752	1139	2574	MED	271
PS35	15.4676	1.1650	0.6484	860	978	736	2574	MED	272
TC35	10.3385	0.6890	2.0932	616	748	1209	2573	MED	273
JM39	12.1634	0.5993	1.9439	738	627	1206	2571	MED	274
CM27	42.5929	1.7414	0.3858	1139	1151	274	2564	MED	275
PS65	14.8369	1.2945	0.6147	847	1021	694	2562	MED	276
PS04	12.5333	0.8523	0.8379	752	868	939	2559	MED	277
CU46	40.6633	1.4836	0.4308	1122	1077	353	2552	MED	278
AS05	58.6132	2.2087	0.3079	1199	1197	151	2547	MED	279
RA48	15.6125	0.6645	0.8545	865	719	963	2547	MED	280
CU62	40.8777	1.5709	0.4143	1123	1104	319	2546	MED	281
PS37	12.6830	1.0469	0.7281	767	939	839	2545	MED	282
AO13	71.2334	2.5797	0.2971	1205	1203	135	2543	MED	283
AS12	84.1953	3.3834	0.2859	1210	1207	118	2535	MED	284
CL05	54.0307	2.3048	0.3101	1185	1198	152	2535	MED	285
CL04	47.9730	1.9383	0.3324	1169	1173	190	2532	MED	286
PL15	14.8519	0.7890	0.7435	848	831	852	2531	MED	287
JA42	19.8188	0.8078	0.6577	928	842	755	2525	MED	288
CB04	35.5815	1.2263	0.4885	1066	997	457	2520	MED	289
CM32	39.7673	1.6168	0.3938	1116	1119	285	2520	MED	290
CU09	14.4483	0.7079	0.8092	832	774	910	2516	MED	291
CB25	43.4134	1.7135	0.3556	1147	1143	224	2514	MED	292
CL03	41.2258	1.7307	0.3650	1129	1147	238	2514	MED	293
YO12	14.4472	0.8450	0.6953	830	864	820	2514	MED	294

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JR21	12.0664	0.7208	0.8959	731	785	993	2509	MED	295
JR16	11.5957	0.6446	1.0722	713	689	1106	2508	MED	296
AO21	55.6118	1.9541	0.2989	1193	1177	137	2507	MED	297
CB26	37.4414	1.5226	0.4203	1083	1091	332	2506	MED	298
JL48	47.8824	1.9646	0.3167	1167	1178	161	2506	MED	299
PU06	10.0034	0.8498	0.9631	585	866	1048	2499	MED	300
AS04	76.7714	2.8565	0.2598	1207	1204	87	2498	MED	301
RA19	16.4686	0.8308	0.6587	883	855	758	2496	MED	302
JA23	15.5484	0.7360	0.7098	863	799	832	2494	MED	303
PU20	14.4475	0.5819	0.9963	831	597	1065	2493	MED	304
RU79	14.1737	0.6948	0.8098	824	755	912	2491	MED	305
AS02	55.1531	2.1485	0.2741	1191	1193	103	2487	MED	306
JM20	12.2548	0.7025	0.8684	740	767	979	2486	MED	307
JA25	13.9988	0.7156	0.7832	819	779	887	2485	MED	308
JL44	46.2195	1.7730	0.3219	1161	1155	169	2485	MED	309
RD73	11.9675	0.6883	0.9144	727	745	1011	2483	MED	310
RU84	13.3676	0.6568	0.8682	796	708	978	2482	MED	311
CM31	33.3510	1.2938	0.4642	1045	1020	412	2477	MED	312
AS15	85.8286	3.5171	0.2196	1211	1211	54	2476	MED	313
JM65	14.7700	0.9449	0.6375	845	906	724	2475	MED	314
RU36	12.3404	0.8417	0.7606	742	860	870	2472	MED	315
JM44	15.7864	0.7499	0.6755	870	808	789	2467	MED	316
AS08	109.2736	4.3262	0.1897	1216	1215	33	2464	MED	317
JL51	74.1706	2.9209	0.2195	1206	1205	53	2464	MED	318
JM84	18.3618	0.8143	0.6235	913	845	705	2463	MED	319

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
PU11	12.6274	0.7891	0.7614	759	832	871	2462	MED	320
JL52	89.1755	4.9015	0.1772	1212	1216	30	2458	MED	321
AS09	84.0619	3.3921	0.2038	1209	1208	40	2457	MED	322
RU86	11.4851	0.6424	0.9907	707	687	1063	2457	MED	323
CU66	37.5173	1.7125	0.3611	1084	1142	230	2456	MED	324
AS10	83.3629	3.4261	0.1979	1208	1210	37	2455	MED	325
TP07	10.2451	0.6877	1.0622	610	744	1101	2455	MED	326
JU30	12.7437	0.8732	0.6849	771	876	804	2451	MED	327
AS07	96.1444	3.8875	0.1611	1214	1213	23	2450	MED	328
CU69	39.3884	1.6869	0.3473	1105	1136	209	2450	MED	329
PS41	13.3437	1.0489	0.6304	794	940	716	2450	MED	330
YO34	26.2893	1.0314	0.5253	983	933	534	2450	MED	331
JL53	70.9632	3.8321	0.1680	1204	1212	26	2442	MED	332
AS01	105.2914	4.1721	0.1293	1215	1214	11	2440	MED	333
CB13	14.8799	0.6113	0.8397	850	648	941	2439	MED	334
PS06	11.1911	0.7142	0.8641	688	777	974	2439	MED	335
PS40	13.0427	1.1302	0.6146	785	959	693	2437	MED	336
RU66	13.7336	0.6569	0.8176	808	709	918	2435	MED	337
YO45	12.1412	0.5869	1.0413	734	606	1093	2433	MED	338
AO11	57.2342	2.0311	0.2136	1198	1187	46	2431	MED	339
NE59	12.0995	0.6017	0.9888	733	636	1061	2430	MED	340
CL02	39.5102	1.6902	0.3270	1107	1138	182	2427	MED	341
JL45	44.3435	1.7688	0.2860	1154	1154	119	2427	MED	342
CB41	52.4199	1.9676	0.2348	1181	1180	61	2422	MED	343
YO17	14.7476	0.7370	0.6676	844	800	776	2420	MED	344

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CB12	34.6451	1.2819	0.4288	1056	1016	347	2419	MED	345
RA64	29.6637	1.0710	0.4924	1011	946	462	2419	MED	346
CB38	54.3187	1.9408	0.2258	1188	1174	56	2418	MED	347
PS52	15.2500	1.5254	0.4950	854	1092	470	2416	MED	348
CB30	67.6203	2.3274	0.1395	1203	1199	13	2415	MED	349
JR22	12.5082	0.6346	0.8856	748	679	987	2414	MED	350
AO08	43.1718	1.4491	0.3376	1143	1069	199	2411	MED	351
JM82	12.5513	0.6929	0.8035	753	753	905	2411	MED	352
RA07	15.5160	0.7671	0.6446	862	815	733	2410	MED	353
RA42	15.8966	0.8766	0.5915	874	878	658	2410	MED	354
YO39	16.3378	0.8294	0.6045	879	853	678	2410	MED	355
CB01	33.7109	1.1879	0.4415	1048	987	371	2406	MED	356
AS13	43.5716	1.8020	0.2695	1148	1157	100	2405	MED	357
RA17	27.9297	1.1814	0.4735	992	984	426	2402	MED	358
CM30	28.8188	1.1374	0.4783	1002	964	435	2401	MED	359
RU76	14.5078	0.7406	0.6601	833	803	764	2400	MED	360
CB33	58.6323	2.1326	0.0725	1200	1192	6	2398	MED	361
CB42	54.3961	1.9538	0.1840	1189	1176	31	2396	MED	362
PS49	15.8547	1.6149	0.4619	873	1116	406	2395	MED	363
AO14	53.6926	1.9701	0.1756	1183	1181	29	2393	MED	364
RA41	17.2648	1.0126	0.5400	894	929	570	2393	MED	365
RD71	10.8584	0.5790	1.2028	662	593	1134	2389	MED	366
JA26	13.4823	0.6794	0.7413	802	733	850	2385	MED	367
PU10	10.8452	0.6462	0.9465	658	693	1033	2384	MED	368
JM42	11.9466	0.5914	0.9618	725	612	1046	2383	MED	369

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CU67	33.8405	1.3226	0.4052	1051	1027	304	2382	MED	370
PS82	12.1709	0.7019	0.7707	739	763	878	2380	MED	371
CB31	53.0623	1.8969	0.1546	1182	1172	21	2375	MED	372
PS85	13.9210	0.7874	0.6422	818	827	730	2375	MED	373
CB35	52.2492	1.8899	0.1646	1180	1170	24	2374	MED	374
AO09	45.2981	1.5051	0.2922	1157	1088	127	2372	MED	375
CB36	50.1782	1.8776	0.1653	1175	1169	25	2369	MED	376
CB39	49.4691	1.8141	0.1910	1172	1161	35	2368	MED	377
CB44	47.0941	1.6964	0.2356	1164	1140	63	2367	MED	378
TP16	10.2418	0.6280	1.0320	609	672	1085	2366	MED	379
RD69	12.1621	0.6347	0.8437	736	680	948	2364	MED	380
AO18	45.8866	1.5931	0.2647	1159	1108	95	2362	MED	381
CU65	32.2343	1.4261	0.3844	1031	1059	270	2360	MED	382
CU68	32.5827	1.3506	0.3943	1035	1037	288	2360	MED	383
AO04	43.1822	1.6278	0.2632	1144	1122	93	2359	MED	384
CB43	46.3894	1.6588	0.2399	1162	1126	69	2357	MED	385
YA04	10.0069	0.5529	1.9187	587	566	1203	2356	MED	386
CM17	14.3266	0.7061	0.6581	828	771	756	2355	MED	387
CB10	14.7307	0.5825	0.8120	842	598	914	2354	MED	388
JM35	12.1431	0.6157	0.8545	735	654	964	2353	MED	389
CB05	30.8457	1.1429	0.4385	1018	967	367	2352	MED	390
PS01	12.8355	0.8897	0.6127	776	886	690	2352	MED	391
RD58	12.6351	0.7204	0.6852	762	784	806	2352	MED	392
CB32	50.9299	1.7991	0.1143	1178	1156	10	2344	MED	393
RA66	32.3456	1.0674	0.4395	1032	944	368	2344	MED	394

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RU74	13.7420	0.6764	0.6834	809	732	800	2341	MED	395
CU51	45.2849	1.6902	0.2118	1156	1137	45	2338	MED	396
CL01	41.5876	1.8216	0.2103	1130	1162	44	2336	MED	397
RA69	27.2238	0.9331	0.4835	988	900	445	2333	MED	398
AS11	42.9220	1.8640	0.1557	1142	1166	22	2330	MED	399
RU57	12.7098	0.6456	0.7590	769	692	869	2330	MED	400
RD46	12.6618	0.7044	0.6781	764	769	794	2327	MED	401
PL42	16.8692	0.8446	0.5430	887	863	574	2324	MED	402
TC27	10.4344	0.7109	0.8196	626	775	922	2323	MED	403
JL21	18.7004	0.8150	0.5356	919	846	557	2322	MED	404
RU70	15.8169	0.7021	0.6106	871	765	684	2320	MED	405
JA44	23.4455	0.9420	0.4892	955	903	458	2316	MED	406
CU36	39.6854	1.4755	0.2921	1114	1075	126	2315	MED	407
JU33	13.2811	1.0149	0.5527	793	930	591	2314	MED	408
RL14	13.2343	0.6014	0.7880	790	633	891	2314	MED	409
PS07	12.4055	0.8792	0.6120	744	881	687	2312	MED	410
AO10	46.1285	1.5647	0.2142	1160	1103	47	2310	MED	411
AS14	39.6593	1.6728	0.2371	1112	1131	66	2309	MED	412
YO41	16.2996	0.7437	0.5701	878	805	625	2308	MED	413
CM29	38.5961	1.5299	0.2862	1093	1094	120	2307	MED	414
PL32	14.6406	0.7676	0.5890	839	816	652	2307	MED	415
TC32	9.8393	0.6625	0.9282	568	714	1025	2307	MED	416
PS60	10.6092	0.9574	0.6565	640	912	752	2304	MED	417
JA18	12.0411	0.8096	0.6442	728	843	732	2303	MED	418
AO02	33.4962	1.2873	0.3626	1046	1017	234	2297	MED	419

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RA47	16.3847	0.6833	0.6050	880	738	679	2297	MED	420
PS02	11.4572	0.9554	0.6059	705	910	681	2296	MED	421
JU59	8.8071	0.6449	1.1084	488	691	1115	2294	MED	422
RD63	12.6686	0.7270	0.6481	765	791	735	2291	MED	423
TP17	9.2297	0.5538	1.6709	523	569	1197	2289	MED	424
PL19	21.1725	0.8925	0.4923	939	887	461	2287	MED	425
CB14	13.8296	0.6003	0.7346	811	629	845	2285	MED	426
RA28	10.7607	0.5933	0.9247	649	617	1018	2284	MED	427
AS18	33.7259	1.7371	0.2557	1049	1149	82	2280	MED	428
RL11	13.1144	0.6255	0.7030	787	667	826	2280	MED	429
JU61	13.4599	0.9909	0.5326	799	924	549	2272	MED	430
RU90	10.2109	0.5371	1.1447	605	543	1122	2270	MED	431
NE84	12.8067	0.4711	0.9785	774	435	1059	2268	MED	432
TP14	11.6167	0.6274	0.7755	714	671	882	2267	MED	433
RA68	28.6149	0.9441	0.4306	1001	905	350	2256	MED	434
JU34	16.2345	1.2253	0.4450	876	996	383	2255	MED	435
JU08	15.3458	0.9373	0.5048	857	901	496	2254	MED	436
JU12	10.8810	0.6955	0.7117	664	756	833	2253	MED	437
JM53	10.7991	0.7179	0.6916	654	782	814	2250	MED	438
RL13	14.1233	0.6633	0.6256	821	716	710	2247	MED	439
RU69	13.6506	0.6269	0.6640	806	669	771	2246	MED	440
JM81	12.4133	0.6098	0.7395	745	647	848	2240	MED	441
RA06	12.5710	0.6740	0.6572	755	730	754	2239	MED	442
YO64	15.2836	0.5963	0.6590	855	621	761	2237	MED	443
PS79	12.6255	0.7551	0.5949	758	811	665	2234	MED	444

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RA72	33.6122	1.0889	0.3629	1047	951	235	2233	MED	445
RL08	11.6284	0.5163	0.9131	715	501	1008	2224	MED	446
YO08	13.3551	0.7196	0.5847	795	783	646	2224	MED	447
PS43	11.4785	0.8432	0.5900	706	861	656	2223	MED	448
AS16	26.3753	1.4716	0.3161	985	1073	159	2217	MED	449
JA28	16.4362	0.7770	0.5135	881	819	514	2214	MED	450
JU35	9.6900	0.8768	0.6682	555	879	779	2213	MED	451
JM79	12.7797	0.6072	0.6778	773	645	793	2211	MED	452
CU10	18.2370	0.7605	0.5021	910	814	486	2210	MED	453
AS20	30.0258	1.5951	0.2559	1016	1109	83	2208	MED	454
JA24	12.9182	0.7157	0.5849	780	780	647	2207	MED	455
YO23	10.2207	0.4964	1.1379	606	476	1120	2202	MED	456
CU70	36.6481	1.4892	0.2081	1077	1081	43	2201	MED	457
JU63	10.8458	0.7815	0.6329	659	823	718	2200	MED	458
TP10	12.3599	0.6733	0.6396	743	728	727	2198	MED	459
TP06	10.1822	0.6447	0.8015	601	690	903	2194	MED	460
TP15	8.8876	0.5352	1.3057	493	538	1160	2191	MED	461
JM76	12.6189	0.6400	0.6558	757	685	748	2190	MED	462
RA67	25.3054	0.8771	0.4212	972	880	334	2186	MED	463
RU92	10.7705	0.5238	0.9253	651	514	1020	2185	MED	464
CU08	13.9183	0.6539	0.5937	817	702	662	2181	MED	465
RA71	23.3307	0.7787	0.4586	954	822	403	2179	MED	466
PS69	10.4114	0.6860	0.6872	625	742	811	2178	MED	467
RA45	13.4040	0.6887	0.5714	798	747	629	2174	MED	468
JM14	10.6578	0.6200	0.7542	644	661	867	2172	MED	469

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CB03	37.3023	1.2756	0.2487	1081	1013	77	2171	MED	470
CB46	37.2405	1.4732	0.1434	1080	1074	16	2170	MED	471
TC26	8.9135	0.5849	0.9971	496	604	1066	2166	MED	472
TC33	8.9378	0.5429	1.1221	499	551	1116	2166	MED	473
PS84	10.8697	0.6483	0.6857	663	694	808	2165	MED	474
TH45	8.9236	0.4957	1.6175	497	473	1193	2163	MED	475
JM60	11.2451	0.6052	0.7016	692	642	825	2159	MED	476
RA70	21.2967	0.7476	0.4635	941	806	409	2156	MED	477
RA52	11.7543	0.4889	0.8595	718	467	970	2155	MED	478
RU87	11.8915	0.5810	0.7270	722	594	838	2154	MED	479
PL14	12.5094	0.6166	0.6555	749	657	747	2153	MED	480
RA16	12.0680	0.6589	0.6241	732	711	708	2151	MED	481
CB16	32.5766	1.2314	0.2834	1034	999	116	2149	MED	482
CB18	35.5924	1.3650	0.2031	1067	1043	39	2149	MED	483
JU24	10.1251	0.5962	0.8337	594	620	935	2149	MED	484
JM40	9.5806	0.6028	0.8525	548	640	959	2147	MED	485
RD75	11.3542	0.6203	0.6693	701	662	781	2144	MED	486
RU22	10.4108	0.4989	0.9568	624	478	1040	2142	MED	487
TC23	9.8708	0.5529	0.9018	571	567	1001	2139	MED	488
AS19	28.4552	1.4814	0.2321	999	1076	60	2135	MED	489
CU23	11.2735	0.5315	0.8027	695	531	904	2130	MED	490
JM51	9.7472	0.6544	0.7540	561	703	866	2130	MED	491
JA31	14.9291	0.7212	0.5025	851	788	489	2128	MED	492
JM80	10.9162	0.5410	0.8079	669	549	909	2127	MED	493
YO44	12.6420	0.6435	0.6025	763	688	675	2126	MED	494

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JM41	9.2988	0.6676	0.7679	526	722	877	2125	MED	495
JA09	10.4491	0.6506	0.6814	628	697	799	2124	MED	496
PU05	14.6679	0.6328	0.5613	840	674	608	2122	MED	497
CU26	12.8794	0.5711	0.6565	778	585	751	2114	MED	498
YO16	12.2751	0.6584	0.5934	741	710	661	2112	MED	499
CM15	11.3481	0.5258	0.7866	700	521	890	2111	MED	500
CU27	10.5155	0.5289	0.8451	633	524	951	2108	MED	501
RU71	11.7863	0.5769	0.6810	720	590	798	2108	MED	502
YA01	9.2831	0.4711	1.2305	525	434	1143	2102	MED	503
JU32	12.9631	0.9886	0.4513	781	923	389	2093	MED	504
PL31	12.5206	0.6529	0.5796	750	699	642	2091	MED	505
PS42	11.1625	0.9311	0.5075	686	899	503	2088	MED	506
PU16	13.8994	0.7071	0.5066	815	773	499	2087	MED	507
PS50	13.8812	1.4358	0.3429	813	1062	207	2082	MED	508
JU03	13.2726	0.9267	0.4521	792	897	391	2080	MED	509
TH44	8.0814	0.5430	1.0715	423	552	1105	2080	MED	510
AS17	25.1337	1.2904	0.2627	970	1018	90	2078	MED	511
RD61	10.6379	0.6003	0.6852	642	630	805	2077	MED	512
RU29	11.2013	0.5292	0.7489	689	525	859	2073	MED	513
CB45	33.9185	1.2674	0.1379	1052	1008	12	2072	MED	514
JA14	11.3171	0.7003	0.5625	698	759	612	2069	MED	515
JU46	8.8600	0.4667	1.2614	492	425	1150	2067	MED	516
RA73	23.5098	0.7876	0.3868	958	828	275	2061	MED	517
PL58	10.6833	0.5364	0.7509	646	539	862	2047	MED	518
TC31	9.0057	0.5573	0.8554	505	572	966	2043	MED	519

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RA74	23.0678	0.7964	0.3717	952	837	251	2040	MED	520
RU78	13.0000	0.6362	0.5388	784	682	568	2034	MED	521
JA32	14.4178	0.7023	0.4812	829	766	438	2033	MED	522
PL48	13.6576	0.7278	0.4781	807	792	434	2033	MED	523
CU29	16.4577	0.6271	0.4975	882	670	478	2030	MED	524
RU94	9.1977	0.4186	1.3462	521	338	1170	2029	MED	525
CM13	12.8681	0.5752	0.5941	777	588	663	2028	MED	526
JA16	10.1810	0.7165	0.5803	600	781	643	2024	MED	527
TH37	7.3991	0.5094	1.3252	367	490	1165	2022	MED	528
TP04	11.2691	0.6902	0.5410	694	750	571	2015	MED	529
RD02	8.1232	0.5067	1.0542	430	487	1095	2012	MED	530
RU05	7.8522	0.4817	1.2879	400	451	1158	2009	MED	531
JA20	9.9946	0.6545	0.6346	584	704	720	2008	MED	532
PS44	10.4650	0.8266	0.5206	629	852	527	2008	MED	533
RD32	9.9663	0.5735	0.7265	581	586	837	2004	MED	534
PL40	17.6295	0.8128	0.3741	899	844	255	1998	MED	535
JU27	10.3603	0.7832	0.5340	618	825	551	1994	MED	536
PL61	9.0598	0.4740	0.9594	508	443	1043	1994	MED	537
RD57	11.0562	0.6394	0.5763	678	683	632	1993	MED	538
RU21	9.3804	0.4463	1.0006	533	389	1068	1990	MED	539
RU62	12.0547	0.7019	0.5048	729	764	495	1988	MED	540
JM48	10.7572	0.5976	0.6255	648	623	709	1980	MED	541
JM33	8.6337	0.6014	0.7668	469	634	876	1979	MED	542
JU80	8.1859	0.4800	1.0299	433	449	1083	1965	MED	543
JU84	8.2324	0.6504	0.7046	435	696	830	1961	MED	544

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RD43	9.5564	0.5369	0.7654	546	541	874	1961	MED	545
JA33	12.9698	0.6708	0.4850	783	726	449	1958	MED	546
RU77	11.9637	0.6605	0.5159	726	713	519	1958	MED	547
JU20	10.7433	0.6556	0.5583	647	706	604	1957	MED	548
RD53	10.1348	0.5926	0.6518	596	614	741	1951	MED	549
CB19	28.1005	0.9827	0.1729	993	921	27	1941	MED	550
PL02	13.2303	0.5426	0.5580	789	550	602	1941	MED	551
YO21	11.6915	0.5395	0.6003	717	547	673	1937	MED	552
PL56	12.6283	0.6315	0.5068	760	673	500	1933	MED	553
JU22	8.0096	0.5194	0.9040	418	507	1004	1929	MED	554
JM45	8.5638	0.5536	0.7946	464	568	896	1928	MED	555
CB21	25.6701	1.0161	0.1466	977	931	18	1926	MED	556
JA02	10.9241	0.6973	0.5049	670	757	497	1924	MED	557
JU07	12.8205	0.7543	0.4228	775	810	338	1923	MED	558
PU14	10.3685	0.5844	0.6215	619	602	702	1923	MED	559
JL18	19.9935	0.7957	0.3143	930	836	156	1922	MED	560
PS30	11.0490	0.7334	0.4849	677	795	446	1918	MED	561
PS36	11.5208	0.9674	0.3977	709	917	292	1918	MED	562
JM12	10.4071	0.5573	0.6279	623	573	713	1909	MED	563
JM17	9.1912	0.6847	0.5864	519	740	649	1908	MED	564
JM63	9.8110	0.7208	0.5355	566	786	556	1908	MED	565
JM58	11.0448	0.6199	0.5386	676	660	566	1902	MED	566
TP12	9.9362	0.6359	0.5796	580	681	641	1902	MED	567
JA38	9.5020	0.4359	0.8768	541	372	982	1895	MED	568
PU07	9.3765	0.9115	0.4954	531	893	471	1895	MED	569

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
YO40	11.6520	0.6667	0.4896	716	720	459	1895	MED	570
JM13	9.0399	0.5292	0.7462	507	526	856	1889	MED	571
PL44	14.2218	0.7879	0.3597	825	829	229	1883	MED	572
JU49	7.2766	0.4627	1.0605	355	421	1100	1876	MED	573
PL45	18.9361	0.7559	0.2955	924	812	131	1867	MED	574
RD49	10.2290	0.5782	0.5967	607	592	667	1866	MED	575
RU89	8.9012	0.5345	0.7223	495	536	834	1865	MED	576
JA12	10.3372	0.6160	0.5532	615	655	592	1862	MED	577
RU32	10.8160	0.5310	0.6034	656	529	676	1861	MED	578
RL16	8.9375	0.4367	0.8839	498	377	985	1860	MED	579
PL64	12.0614	0.5846	0.5178	730	603	523	1856	MED	580
RU12	8.9415	0.4650	0.8331	500	422	932	1854	MED	581
CM22	14.1709	0.6057	0.4474	823	643	387	1853	MED	582
JM34	8.5415	0.4819	0.8331	461	454	933	1848	MED	583
RU28	8.2796	0.5035	0.8212	439	484	924	1847	MED	584
RA22	12.6701	0.7005	0.4134	766	760	316	1842	MED	585
RU61	12.5605	0.6247	0.4726	754	666	422	1842	MED	586
JU06	14.7789	0.9536	0.2589	846	908	86	1840	MED	587
YO68	14.6029	0.5439	0.4865	836	553	451	1840	MED	588
CU07	11.7566	0.5656	0.5259	719	582	537	1838	MED	589
NE11	6.8519	0.4289	1.3159	317	358	1163	1838	MED	590
TP18	8.6248	0.5894	0.6590	467	609	762	1838	MED	591
TC30	8.6353	0.5350	0.7033	470	537	827	1834	MED	592
JU15	10.5343	0.6684	0.4957	636	725	472	1833	MED	593
JR20	9.6555	0.6183	0.5644	553	659	616	1828	MED	594

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RA31	9.0927	0.5036	0.7072	511	485	831	1827	MED	595
JM21	7.9699	0.4866	0.8438	413	463	949	1825	MED	596
JU31	9.6286	0.7712	0.4882	551	817	456	1824	MED	597
PL43	12.4572	0.7208	0.3964	746	787	291	1824	MED	598
RA15	10.3430	0.6128	0.5344	617	650	553	1820	MED	599
CB15	20.3471	0.7582	0.2462	933	813	73	1819	MED	600
PS47	8.1950	0.5383	0.7293	434	544	840	1818	MED	601
PS48	6.9118	0.4536	1.0554	323	399	1096	1818	MED	602
YO43	10.3885	0.5973	0.5413	621	622	573	1816	MED	603
RU91	9.7245	0.5071	0.6621	557	489	768	1814	MED	604
PL13	11.0391	0.5930	0.5146	675	615	517	1807	MED	605
RL20	9.2157	0.4670	0.7460	522	426	854	1802	MED	606
RD55	10.2413	0.5931	0.5438	608	616	576	1800	MED	607
YO38	13.0898	0.6811	0.3887	786	735	279	1800	MED	608
JM61	10.8477	0.6007	0.5092	660	632	507	1799	MED	609
JM54	9.7250	0.6539	0.5272	558	701	539	1798	MED	610
CU21	8.4855	0.4235	0.8933	457	347	991	1795	MED	611
JM77	10.2533	0.6061	0.5258	611	644	536	1791	MED	612
RA34	10.9349	0.5757	0.5230	671	589	531	1791	MED	613
RU34	9.7435	0.5617	0.5900	560	576	655	1791	MED	614
YO67	13.5279	0.5840	0.4460	803	600	385	1788	MED	615
JA34	13.4013	0.7114	0.3493	797	776	212	1785	MED	616
JA37	8.6934	0.4572	0.7987	479	405	900	1784	MED	617
CU04	11.0601	0.5895	0.5045	679	610	494	1783	MED	618
RD44	9.9740	0.5369	0.5917	582	540	659	1781	MED	619

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
TP11	7.5631	0.4753	0.8487	379	444	955	1778	MED	620
JU56	6.6518	0.4509	1.0340	293	396	1087	1776	LOW	621
RD74	9.5633	0.5607	0.5894	547	575	654	1776	LOW	622
RD52	10.1397	0.5911	0.5386	597	611	567	1775	LOW	623
TP05	8.7356	0.5370	0.6560	480	542	749	1771	LOW	624
TH39	6.8365	0.3888	1.4102	311	282	1173	1766	LOW	625
YA03	7.6749	0.4367	0.9075	385	376	1005	1766	LOW	626
RU67	11.2767	0.5830	0.4942	696	599	468	1763	LOW	627
RU23	8.5781	0.4254	0.8429	465	349	946	1760	LOW	628
JU55	7.7185	0.5100	0.7617	390	492	872	1754	LOW	629
PU09	10.1057	0.5641	0.5458	593	580	580	1753	LOW	630
CU30	18.5481	0.7007	0.2479	915	761	75	1751	LOW	631
JA07	11.5152	0.6674	0.4144	708	721	320	1749	LOW	632
TC22	7.3544	0.4196	0.9627	362	339	1047	1748	LOW	633
JM32	8.6646	0.5046	0.6748	472	486	787	1745	LOW	634
PL46	11.3436	0.5978	0.4713	699	624	420	1743	LOW	635
JU76	8.6856	0.6027	0.5681	476	639	623	1738	LOW	636
RL10	10.0487	0.5164	0.5817	589	502	645	1736	LOW	637
BS34	5.9776	0.4293	1.3158	214	359	1162	1735	LOW	638
PL12	10.5348	0.4593	0.6044	637	416	677	1730	LOW	639
JM23	7.4043	0.4532	0.8543	368	398	962	1728	LOW	640
RU30	10.4854	0.5189	0.5492	632	506	588	1726	LOW	641
NE58	8.6307	0.3962	0.8443	468	305	950	1723	LOW	642
JU85	7.5403	0.5945	0.6393	377	618	725	1720	LOW	643
NE75	7.1740	0.3952	1.0049	346	303	1071	1720	LOW	644

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RD45	9.3683	0.4859	0.6401	530	462	728	1720	LOW	645
JU04	11.0075	0.9994	0.2808	674	926	109	1709	LOW	646
RA35	9.4646	0.5891	0.5368	537	608	562	1707	LOW	647
TC25	9.1283	0.5642	0.5618	514	581	611	1706	LOW	648
TC16	7.4331	0.4775	0.7803	371	448	885	1704	LOW	649
JM25	8.5133	0.5229	0.6426	460	512	731	1703	LOW	650
JU29	11.3847	0.8335	0.3031	702	856	144	1702	LOW	651
JU83	7.4816	0.5683	0.6541	373	583	745	1701	LOW	652
PL35	10.4691	0.6019	0.4766	630	637	432	1699	LOW	653
JM24	7.9619	0.4943	0.6910	412	471	813	1696	LOW	654
RU04	7.7787	0.4433	0.8176	393	384	919	1696	LOW	655
CU20	8.5074	0.4178	0.7977	459	337	899	1695	LOW	656
JU11	10.3332	0.6830	0.4250	614	737	342	1693	LOW	657
YO24	11.0789	0.5305	0.5018	680	528	485	1693	LOW	658
CM16	10.9614	0.5390	0.4958	672	545	473	1690	LOW	659
RU68	10.7940	0.5500	0.4965	652	559	475	1686	LOW	660
JU64	7.6568	0.7018	0.5232	383	762	533	1678	LOW	661
RU73	9.5553	0.5179	0.5702	545	504	627	1676	LOW	662
PL26	13.9114	0.8026	0.1490	816	840	19	1675	LOW	663
JM86	15.6562	0.6502	0.2827	866	695	113	1674	LOW	664
RU81	10.7683	0.5500	0.4927	650	560	463	1673	LOW	665
CB23	19.5345	0.6842	0.0703	927	739	5	1671	LOW	666
RU35	9.9278	0.4715	0.5887	578	436	651	1665	LOW	667
JU05	11.5903	0.9012	0.2348	712	890	62	1664	LOW	668
PU02	11.8949	0.8461	0.2395	724	865	68	1657	LOW	669

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RA44	9.8927	0.6601	0.4382	574	712	366	1652	LOW	670
YO15	9.9862	0.5149	0.5397	583	500	569	1652	LOW	671
JM59	10.8961	0.6678	0.3784	665	723	261	1649	LOW	672
RA26	9.5176	0.5625	0.5215	543	577	529	1649	LOW	673
PL09	9.9058	0.4365	0.6158	576	374	698	1648	LOW	674
YO02	10.1894	0.6003	0.4688	602	628	416	1646	LOW	675
JU73	9.8914	0.5243	0.5348	573	516	554	1643	LOW	676
JM16	10.1980	0.5812	0.4821	603	596	442	1641	LOW	677
RU20	6.9068	0.3942	0.9259	322	297	1021	1640	LOW	678
TC24	8.2472	0.5506	0.5793	438	562	638	1638	LOW	679
PL52	8.8951	0.4718	0.6238	494	437	706	1637	LOW	680
JU72	7.9032	0.5631	0.5866	406	578	650	1634	LOW	681
RU08	9.0943	0.4538	0.6352	512	400	721	1633	LOW	682
PL55	9.9333	0.6137	0.4584	579	652	401	1632	LOW	683
CU22	9.1804	0.4353	0.6489	518	371	738	1627	LOW	684
RU59	9.8469	0.5445	0.5072	569	555	502	1626	LOW	685
PS45	7.9062	0.5597	0.5815	407	574	644	1625	LOW	686
PL57	8.7601	0.4816	0.6128	483	450	691	1624	LOW	687
PU04	11.2371	0.8296	0.2428	690	854	70	1614	LOW	688
PL30	12.7082	0.7325	0.2190	768	793	52	1613	LOW	689
YO65	11.2637	0.4867	0.4879	693	465	455	1613	LOW	690
RL18	8.0923	0.3961	0.7776	425	304	883	1612	LOW	691
YA06	7.0249	0.4152	0.8380	340	331	940	1611	LOW	692
JA04	10.0945	0.6160	0.4354	590	656	361	1607	LOW	693
TH41	5.9151	0.4178	0.9894	206	336	1062	1604	LOW	694

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CM12	10.2984	0.4587	0.5456	613	412	578	1603	LOW	695
JU02	10.6568	0.9086	0.2382	643	891	67	1601	LOW	696
RD64	9.1101	0.4991	0.5614	513	479	609	1601	LOW	697
YO66	11.2391	0.4447	0.5189	691	386	524	1601	LOW	698
JM69	8.4649	0.6212	0.4993	454	663	482	1599	LOW	699
JA01	10.8981	0.6631	0.3504	666	715	216	1597	LOW	700
JU69	10.5171	0.8852	0.2516	634	883	79	1596	LOW	701
JU74	8.6822	0.4176	0.6737	474	335	786	1595	LOW	702
JU36	10.1733	0.6338	0.4138	599	676	317	1592	LOW	703
NE08	6.4861	0.3791	0.9648	275	264	1052	1591	LOW	704
PS76	9.4832	0.5326	0.5151	540	533	518	1591	LOW	705
RD05	7.9127	0.4080	0.7536	408	318	864	1590	LOW	706
JU65	9.7597	0.7933	0.3332	563	834	192	1589	LOW	707
JA29	11.8572	0.6554	0.3077	721	705	150	1576	LOW	708
RD41	8.4742	0.4818	0.5953	456	453	666	1575	LOW	709
PS70	8.0963	0.5510	0.5467	426	563	583	1572	LOW	710
JA39	11.1162	0.5169	0.4467	681	503	386	1570	LOW	711
CB22	17.7867	0.6226	0.0619	902	664	3	1569	LOW	712
PL03	11.1596	0.3840	0.5617	685	273	610	1568	LOW	713
JM52	8.8435	0.6339	0.4563	491	677	394	1562	LOW	714
JR14	7.3211	0.3931	0.7999	360	296	901	1557	LOW	715
JU25	8.8141	0.7476	0.3774	489	807	259	1555	LOW	716
RU03	6.3365	0.3951	0.8990	257	302	996	1555	LOW	717
JU28	10.1042	0.8347	0.2713	592	857	101	1550	LOW	718
JA15	10.0045	0.5689	0.4436	586	584	379	1549	LOW	719

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CM14	10.2595	0.5327	0.4586	612	534	402	1548	LOW	720
JU62	10.4463	0.8535	0.2159	627	870	51	1548	LOW	721
JR15	6.5445	0.4258	0.8145	280	350	916	1546	LOW	722
PU19	12.5309	0.5780	0.3415	751	591	203	1545	LOW	723
PL54	7.4132	0.4701	0.6535	370	431	743	1544	LOW	724
TC15	6.3605	0.4725	0.7334	261	439	844	1544	LOW	725
JM18	9.9023	0.5955	0.4295	575	619	349	1543	LOW	726
NE04	6.0577	0.3317	1.2317	231	167	1144	1542	LOW	727
NE69	7.0004	0.4134	0.7730	334	326	881	1541	LOW	728
NE03	6.4810	0.3589	0.9634	274	217	1049	1540	LOW	729
PU22	10.5417	0.6401	0.3500	638	686	215	1539	LOW	730
JU86	7.2943	0.4756	0.6470	358	446	734	1538	LOW	731
CM03	9.7872	0.5483	0.4666	565	557	414	1536	LOW	732
TC17	6.6357	0.3143	1.0778	291	133	1111	1535	LOW	733
CM05	8.9533	0.4769	0.5487	501	447	586	1534	LOW	734
JM55	8.4535	0.5543	0.5126	451	570	513	1534	LOW	735
JU14	10.7953	0.7354	0.2544	653	797	81	1531	LOW	736
RD60	9.5152	0.5468	0.4751	542	556	431	1529	LOW	737
RU11	8.4713	0.4959	0.5575	455	474	600	1529	LOW	738
RU14	11.3082	0.5638	0.3735	697	579	253	1529	LOW	739
YA07	6.8519	0.3902	0.8205	316	286	923	1525	LOW	740
JU38	8.4206	0.7360	0.3885	448	798	278	1524	LOW	741
NE55	7.2831	0.4029	0.7461	356	311	855	1522	LOW	742
TH23	5.9388	0.3516	1.0742	209	203	1109	1521	LOW	743
RD37	8.4413	0.4920	0.5569	449	468	598	1515	LOW	744

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JU09	10.1705	0.6852	0.3237	598	741	173	1512	LOW	745
YO05	9.0819	0.5294	0.4968	509	527	476	1512	LOW	746
JU57	6.3622	0.4174	0.8094	262	334	911	1507	LOW	747
JU70	9.7061	0.7838	0.2892	556	826	124	1506	LOW	748
JA05	9.9093	0.5742	0.4243	577	587	341	1505	LOW	749
NE61	9.6364	0.3823	0.6104	552	269	683	1504	LOW	750
RU33	9.1508	0.4506	0.5485	516	395	585	1496	LOW	751
RL06	8.0712	0.3656	0.7332	421	232	842	1495	LOW	752
JU01	9.8853	0.8250	0.2437	572	850	71	1493	LOW	753
JA10	10.5174	0.6257	0.3306	635	668	187	1490	LOW	754
JU39	6.9443	0.5342	0.5714	327	535	628	1490	LOW	755
NE36	6.4753	0.3951	0.8105	273	301	913	1487	LOW	756
BS32	7.2421	0.4267	0.6686	352	352	780	1484	LOW	757
TC20	10.8159	0.5484	0.3844	655	558	269	1482	LOW	758
NE45	7.9901	0.4344	0.6166	414	367	699	1480	LOW	759
TP02	8.4581	0.5313	0.5055	452	530	498	1480	LOW	760
RD59	9.4747	0.5524	0.4429	538	565	376	1479	LOW	761
CU06	10.5982	0.5986	0.3491	639	626	210	1475	LOW	762
RU58	10.0327	0.5844	0.3922	588	601	283	1472	LOW	763
TC19	7.7317	0.4849	0.5656	391	459	619	1469	LOW	764
JU43	6.2479	0.3901	0.8338	247	285	936	1468	LOW	765
PU03	9.7549	0.8588	0.1899	562	871	34	1467	LOW	766
PU18	11.5843	0.5207	0.3710	711	509	247	1467	LOW	767
NE56	9.2528	0.3943	0.5793	524	299	639	1462	LOW	768
PL63	10.9014	0.6753	0.2361	667	731	64	1462	LOW	769

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RD35	8.7672	0.5032	0.5033	485	483	491	1459	LOW	770
PS78	8.0758	0.5238	0.5175	422	515	521	1458	LOW	771
YO07	9.8201	0.4937	0.4723	567	470	421	1458	LOW	772
CM08	8.6919	0.4594	0.5376	477	417	563	1457	LOW	773
JM64	8.6851	0.6136	0.4193	475	651	329	1455	LOW	774
PS81	8.9938	0.5146	0.4850	503	499	448	1450	LOW	775
JA03	9.5533	0.6153	0.3734	544	653	252	1449	LOW	776
PL25	11.5803	0.6398	0.2230	710	684	55	1449	LOW	777
PU01	7.6735	0.9666	0.3058	384	916	148	1448	LOW	778
RA05	8.1127	0.4739	0.5451	429	442	577	1448	LOW	779
PL29	11.4548	0.6007	0.2825	704	631	112	1447	LOW	780
PS38	8.6613	0.7924	0.3006	471	833	141	1445	LOW	781
RU65	9.3785	0.5102	0.4710	532	494	419	1445	LOW	782
RU64	10.6142	0.5503	0.3687	641	561	242	1444	LOW	783
JM43	7.7438	0.4684	0.5658	392	429	620	1441	LOW	784
JU41	6.2788	0.3704	0.8424	251	244	945	1440	LOW	785
BS25	5.2394	0.3739	0.9751	133	248	1057	1438	LOW	786
JL02	11.1595	0.6122	0.2738	684	649	102	1435	LOW	787
PS72	7.8582	0.5069	0.5312	401	488	546	1435	LOW	788
BS20	5.1522	0.3812	0.9614	122	267	1045	1434	LOW	789
CU16	8.5487	0.5138	0.4960	462	497	474	1433	LOW	790
TH40	4.9778	0.3559	1.1277	105	208	1118	1431	LOW	791
JU66	8.3127	0.9151	0.2631	441	895	92	1428	LOW	792
TC14	6.6314	0.4320	0.6640	289	364	772	1425	LOW	793
JM22	8.2347	0.4737	0.5307	436	441	545	1422	LOW	794

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
NE02	5.8904	0.3309	0.9737	202	163	1056	1421	LOW	795
YO03	8.0868	0.4843	0.5268	424	458	538	1420	LOW	796
JU78	6.8744	0.4574	0.6129	319	406	692	1417	LOW	797
RU83	10.2051	0.5810	0.3514	604	595	218	1417	LOW	798
NE22	6.9552	0.4275	0.6415	330	357	729	1416	LOW	799
RU37	8.3418	0.4832	0.5143	443	457	516	1416	LOW	800
RU80	9.7306	0.5146	0.4345	559	498	358	1415	LOW	801
RL01	8.4189	0.4149	0.5770	447	330	633	1410	LOW	802
NE53	6.6872	0.3911	0.6970	295	289	822	1406	LOW	803
JA06	10.1315	0.6034	0.3201	595	641	166	1402	LOW	804
RL03	8.5620	0.4653	0.5111	463	424	511	1398	LOW	805
TH36	4.8022	0.3497	1.1038	84	200	1114	1398	LOW	806
PL07	9.6195	0.4452	0.4896	550	387	460	1397	LOW	807
RD04	6.3528	0.4088	0.6942	260	319	817	1396	LOW	808
NE07	5.9645	0.3338	0.9188	210	171	1013	1394	LOW	809
NE62	7.2419	0.3853	0.6632	351	274	769	1394	LOW	810
CM01	8.1011	0.4719	0.5193	427	438	525	1390	LOW	811
JR08	6.8486	0.3833	0.6838	313	272	802	1387	LOW	812
RU63	10.3930	0.5206	0.3739	622	508	254	1384	LOW	813
TC11	6.1121	0.3943	0.7430	234	298	851	1383	LOW	814
RU31	9.0859	0.4227	0.5177	510	346	522	1378	LOW	815
RD19	6.7894	0.3760	0.6926	305	255	816	1376	LOW	816
RU07	7.8237	0.3921	0.6124	395	292	689	1376	LOW	817
NE54	7.3813	0.3662	0.6635	366	234	770	1370	LOW	818
JM28	6.9433	0.5444	0.5023	326	554	488	1368	LOW	819

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
BS15	5.5141	0.3739	0.8454	166	249	952	1367	LOW	820
JA11	9.3203	0.6334	0.3178	528	675	164	1367	LOW	821
BS29	6.5493	0.3915	0.6803	281	290	795	1366	LOW	822
NE21	7.0110	0.4207	0.6124	336	342	688	1366	LOW	823
BS21	5.0016	0.3390	1.0205	106	179	1078	1363	LOW	824
BS27	5.2022	0.3687	0.9011	126	239	998	1363	LOW	825
RD56	9.1557	0.5402	0.4012	517	548	296	1361	LOW	826
BS06	5.2188	0.3348	0.9638	131	173	1051	1355	LOW	827
TC28	8.0529	0.4604	0.5137	420	419	515	1354	LOW	828
NE10	6.0109	0.3554	0.8219	220	207	926	1353	LOW	829
RU82	8.4617	0.4962	0.4730	453	475	423	1351	LOW	830
JA08	10.0969	0.5978	0.2959	591	625	133	1349	LOW	831
BS30	5.8115	0.3921	0.7485	194	291	857	1342	LOW	832
JR19	8.7358	0.5925	0.3698	481	613	246	1340	LOW	833
BS07	5.8735	0.3801	0.7637	201	265	873	1339	LOW	834
JU82	6.5692	0.4731	0.5631	284	440	614	1338	LOW	835
PS29	9.4167	0.7153	0.1501	534	778	20	1332	LOW	836
BS28	6.6256	0.4132	0.6306	288	325	717	1330	LOW	837
BS23	5.2624	0.3704	0.8435	139	243	947	1329	LOW	838
RU72	8.3048	0.4390	0.5077	440	381	504	1325	LOW	839
RU85	9.4336	0.5015	0.4087	535	482	307	1324	LOW	840
NE57	8.1457	0.4169	0.5357	431	332	558	1321	LOW	841
JM06	6.6115	0.4558	0.5716	287	403	630	1320	LOW	842
JM73	8.7945	0.5251	0.4125	487	518	315	1320	LOW	843
CM11	9.8628	0.4754	0.4028	570	445	299	1314	LOW	844

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JM47	6.7698	0.4426	0.5702	302	383	626	1311	LOW	845
PL20	10.9015	0.5100	0.3067	668	491	149	1308	LOW	846
JM31	7.8786	0.6023	0.3803	403	638	263	1304	LOW	847
RU56	8.7630	0.5121	0.4165	484	495	325	1304	LOW	848
PS86	10.8496	0.4976	0.3182	661	477	165	1303	LOW	849
JM68	8.0055	0.7047	0.2830	417	770	114	1301	LOW	850
YO14	7.8451	0.4579	0.5012	398	407	483	1288	LOW	851
RD65	8.4459	0.4483	0.4816	450	394	439	1283	LOW	852
RU88	8.1827	0.4822	0.4564	432	455	395	1282	LOW	853
JM66	8.4870	0.6015	0.3250	458	635	176	1269	LOW	854
RD51	8.9757	0.5259	0.3643	502	522	237	1261	LOW	855
JM85	9.0208	0.5233	0.3680	506	513	240	1259	LOW	856
PL04	9.1970	0.4016	0.4738	520	309	427	1256	LOW	857
BS19	5.0242	0.3596	0.8212	109	218	925	1252	LOW	858
CM09	8.7499	0.4710	0.4224	482	433	337	1252	LOW	859
JA30	9.6712	0.5553	0.2894	554	571	125	1250	LOW	860
PL50	8.3444	0.5252	0.3942	444	519	287	1250	LOW	861
NE15	6.0526	0.3607	0.6807	229	224	796	1249	LOW	862
RA04	7.8477	0.5101	0.4320	399	493	356	1248	LOW	863
JU58	6.9414	0.5265	0.4568	325	523	397	1245	LOW	864
TH09	5.6663	0.3888	0.6681	185	283	777	1245	LOW	865
BS01	4.6774	0.3380	0.8927	77	177	990	1244	LOW	866
JM67	7.8348	0.6174	0.3313	397	658	189	1244	LOW	867
CU11	7.2483	0.3756	0.5788	353	254	636	1243	LOW	868
JM05	6.1280	0.4267	0.5891	237	353	653	1243	LOW	869

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JL38	11.8946	0.5224	0.0937	723	511	8	1242	LOW	870
JU77	5.9791	0.3682	0.6681	215	237	778	1230	LOW	871
CU19	7.4940	0.4111	0.5231	375	322	532	1229	LOW	872
JM03	6.6618	0.4466	0.5299	294	391	543	1228	LOW	873
JM19	7.3630	0.4867	0.4569	365	464	399	1228	LOW	874
TC18	6.8902	0.4603	0.5023	320	418	487	1225	LOW	875
NE18	5.9856	0.3777	0.6523	216	261	742	1219	LOW	876
PU15	7.3621	0.3766	0.5566	364	256	597	1217	LOW	877
RA33	6.8064	0.4089	0.5516	307	320	589	1216	LOW	878
JM46	6.7227	0.3443	0.6368	298	194	723	1215	LOW	879
RD16	6.0121	0.2944	0.7918	221	100	892	1213	LOW	880
YO01	7.6318	0.5862	0.3538	380	605	223	1208	LOW	881
JU10	7.5201	0.5251	0.4114	376	517	313	1206	LOW	882
RL22	7.7887	0.4583	0.4581	394	411	400	1205	LOW	883
TH19	8.6738	0.2237	0.6269	473	18	712	1203	LOW	884
TH29	5.5564	0.3423	0.7316	172	189	841	1202	LOW	885
RD47	8.3595	0.4879	0.3938	445	466	286	1197	LOW	886
BS03	5.3516	0.3736	0.6835	148	246	801	1195	LOW	887
BS17	5.2049	0.3577	0.7453	127	214	853	1194	LOW	888
PS73	6.3507	0.4673	0.5092	258	427	508	1193	LOW	889
YO19	6.9934	0.4995	0.4431	332	480	377	1189	LOW	890
BS04	5.1058	0.3500	0.7539	120	201	865	1186	LOW	891
RL02	7.0512	0.4293	0.4989	344	360	481	1185	LOW	892
RU26	7.0330	0.4144	0.5115	342	329	512	1183	LOW	893
JR13	5.9986	0.3548	0.6569	218	205	753	1176	LOW	894

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JA41	9.4532	0.5214	0.2945	536	510	129	1175	LOW	895
RL19	9.0040	0.4202	0.4155	504	340	323	1167	LOW	896
JM26	7.2295	0.4830	0.4346	349	456	359	1164	LOW	897
RL24	8.6925	0.4067	0.4397	478	315	369	1162	LOW	898
RU25	6.7765	0.3695	0.5650	303	240	618	1161	LOW	899
PL21	10.9955	0.4214	0.3019	673	344	143	1160	LOW	900
RD76	6.9621	0.4475	0.4743	331	393	428	1152	LOW	901
RU46	7.4625	0.4592	0.4382	372	415	365	1152	LOW	902
BS33	5.4176	0.3636	0.6617	156	228	767	1151	LOW	903
PL10	8.8231	0.4273	0.4068	490	356	305	1151	LOW	904
PL24	9.3653	0.3560	0.4641	529	209	410	1148	LOW	905
PU12	7.9439	0.4679	0.4084	410	428	306	1144	LOW	906
NE33	6.4338	0.3237	0.6367	269	152	722	1143	LOW	907
JM70	7.7149	0.5875	0.3048	389	607	146	1142	LOW	908
JA22	7.9607	0.4857	0.3820	411	461	266	1138	LOW	909
JR02	6.0606	0.3099	0.6718	232	123	783	1138	LOW	910
RA32	6.5162	0.3786	0.5569	277	262	599	1138	LOW	911
JM04	5.5504	0.4433	0.5462	171	385	581	1137	LOW	912
TH27	5.4526	0.3432	0.6718	162	191	784	1137	LOW	913
PL11	10.3699	0.3812	0.3713	620	266	250	1136	LOW	914
TC10	5.4430	0.3433	0.6714	161	192	782	1135	LOW	915
NE60	6.9507	0.3946	0.5079	329	300	505	1134	LOW	916
JA19	7.0231	0.5323	0.3790	339	532	262	1133	LOW	917
RD23	6.8051	0.3098	0.6191	306	122	700	1128	LOW	918
BS18	4.2784	0.3100	0.8511	38	125	957	1120	LOW	919

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
JM38	6.4564	0.4270	0.5027	271	354	490	1115	LOW	920
JM56	7.3020	0.5256	0.3619	359	520	233	1112	LOW	921
PL06	6.2703	0.3738	0.5641	250	247	615	1112	LOW	922
JU53	6.8726	0.4937	0.4150	318	469	322	1109	LOW	923
YA05	5.5603	0.3444	0.6490	174	195	739	1108	LOW	924
CU05	8.5849	0.5179	0.2959	466	505	134	1105	LOW	925
TH22	7.3381	0.2230	0.6393	361	17	726	1104	LOW	926
BS08	4.6295	0.3140	0.8008	69	130	902	1101	LOW	927
BS24	5.3032	0.3603	0.6484	142	221	737	1100	LOW	928
NE25	7.9945	0.4141	0.4309	416	327	355	1098	LOW	929
BS02	4.8952	0.2331	0.8664	92	26	977	1095	LOW	930
RA08	6.4191	0.3750	0.5431	266	251	575	1092	LOW	931
TC13	7.2855	0.4302	0.4425	357	361	373	1091	LOW	932
NE24	6.1737	0.3652	0.5647	241	231	617	1089	LOW	933
BS22	5.5068	0.3908	0.5723	165	288	631	1084	LOW	934
JU71	6.4724	0.5517	0.3710	272	564	248	1084	LOW	935
JL54	12.1621	0.4202	0.0619	737	341	4	1082	LOW	936
JR01	6.3031	0.3082	0.6235	255	118	704	1077	LOW	937
JM30	6.7370	0.4371	0.4568	299	378	398	1075	LOW	938
RU60	7.9911	0.4472	0.3831	415	392	268	1075	LOW	939
JU48	6.2050	0.3682	0.5534	243	238	593	1074	LOW	940
JR03	5.3692	0.3887	0.5794	152	281	640	1073	LOW	941
RD12	6.6498	0.3588	0.5383	292	216	565	1073	LOW	942
PL01	7.6979	0.4328	0.4141	388	366	318	1072	LOW	943
BS11	4.2662	0.2892	0.8421	36	89	943	1068	LOW	944

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
TH35	4.7474	0.3488	0.6753	80	199	788	1067	LOW	945
BS35	5.2430	0.3642	0.6218	134	229	703	1066	LOW	946
TH32	5.4147	0.3143	0.6673	155	134	775	1064	LOW	947
JR17	6.7465	0.3813	0.5035	301	268	493	1062	LOW	948
TH43	5.5617	0.3517	0.6056	175	204	680	1059	LOW	949
NE42	5.7687	0.4590	0.4870	189	414	453	1056	LOW	950
TH11	5.4234	0.3826	0.5690	157	271	624	1052	LOW	951
TC29	9.4826	0.3577	0.4009	539	213	295	1047	LOW	952
PS13	5.1628	0.4817	0.4950	125	452	469	1046	LOW	953
NE06	5.9684	0.3318	0.5949	212	168	664	1044	LOW	954
RD21	6.4191	0.3310	0.5628	267	164	613	1044	LOW	955
PS83	9.5837	0.4462	0.2760	549	388	105	1042	LOW	956
TH15	9.1485	0.3398	0.4256	515	183	343	1041	LOW	957
RD67	8.2457	0.5001	0.2871	437	481	122	1040	LOW	958
BS16	4.4767	0.3048	0.7660	53	111	875	1039	LOW	959
JU19	7.8271	0.5393	0.2644	396	546	94	1036	LOW	960
NE37	4.8101	0.3154	0.6917	85	136	815	1036	LOW	961
NE82	5.9171	0.3664	0.5518	207	235	590	1032	LOW	962
RD77	7.4130	0.3903	0.4426	369	287	375	1031	LOW	963
RU10	7.2324	0.4653	0.3761	350	423	258	1031	LOW	964
JR05	5.3466	0.2746	0.6859	147	72	810	1029	LOW	965
RD11	6.6029	0.3376	0.5381	286	176	564	1026	LOW	966
NE46	7.6880	0.4323	0.3850	387	365	271	1023	LOW	967
TC08	7.0031	0.3995	0.4449	335	307	381	1023	LOW	968
BS26	5.4291	0.3313	0.6151	159	166	696	1021	LOW	969

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RU09	7.6443	0.4420	0.3711	382	382	249	1013	LOW	970
JM11	6.9938	0.4316	0.4103	333	362	310	1005	LOW	971
NE09	6.0242	0.2965	0.5983	225	104	671	1000	LOW	972
TH38	4.4184	0.2724	0.7726	50	67	879	996	LOW	973
RU01	5.0937	0.2695	0.6903	119	64	812	995	LOW	974
PL51	8.0183	0.4386	0.3358	419	379	196	994	LOW	975
RD03	5.6504	0.3113	0.6112	181	127	685	993	LOW	976
TH42	5.0814	0.3293	0.6302	118	160	715	993	LOW	977
BS13	4.2097	0.2692	0.7935	33	63	895	991	LOW	978
PL62	7.9329	0.4855	0.2867	409	460	121	990	LOW	979
NE34	5.6577	0.3600	0.5476	182	220	584	986	LOW	980
JM10	7.6873	0.4364	0.3568	386	373	226	985	LOW	981
NE40	6.0275	0.3552	0.5341	226	206	552	984	LOW	982
CU02	6.7077	0.4001	0.4433	297	308	378	983	LOW	983
PL22	9.3086	0.3607	0.3612	527	223	231	981	LOW	984
TH30	4.5595	0.2647	0.7506	62	58	861	981	LOW	985
YO04	7.0365	0.4582	0.3581	343	409	228	980	LOW	986
JU75	6.9279	0.4949	0.3255	324	472	178	974	LOW	987
JR18	6.9015	0.4111	0.4178	321	321	327	969	LOW	988
RD01	5.9940	0.3864	0.4939	217	275	467	959	LOW	989
RL21	6.8507	0.4038	0.4199	314	312	330	956	LOW	990
JU17	6.0395	0.4366	0.4306	228	375	351	954	LOW	991
RL07	7.0117	0.3658	0.4453	337	233	384	954	LOW	992
JM71	6.7400	0.4579	0.3697	300	408	245	953	LOW	993
RD09	5.9685	0.3644	0.5097	213	230	509	952	LOW	994

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RD15	5.6596	0.2929	0.5990	183	95	672	950	LOW	995
RD18	5.5194	0.3445	0.5456	168	196	579	943	LOW	996
JM09	6.8441	0.4143	0.4047	312	328	302	942	LOW	997
JM27	6.1475	0.4260	0.4262	239	351	344	934	LOW	998
JU47	5.9348	0.2812	0.5850	208	78	648	934	LOW	999
NE87	4.6350	0.2287	0.7231	71	24	835	930	LOW	1000
RU06	6.2151	0.3923	0.4450	244	294	382	920	LOW	1001
CU01	7.2002	0.4709	0.2992	348	432	138	918	LOW	1002
NE32	8.4159	0.3199	0.4169	446	144	326	916	LOW	1003
BS09	4.3808	0.3018	0.6587	47	108	759	914	LOW	1004
JU44	6.2186	0.3865	0.4562	245	276	393	914	LOW	1005
NE35	5.3314	0.3395	0.5488	144	182	587	913	LOW	1006
RD40	7.6438	0.3012	0.4691	381	106	417	904	LOW	1007
YO69	9.7605	0.4116	0.1435	564	323	17	904	LOW	1008
JL58	10.8276	0.3680	0.0986	657	236	9	902	LOW	1009
NE20	6.0706	0.3431	0.4971	233	190	477	900	LOW	1010
PS46	4.9773	0.3768	0.5258	104	258	535	897	LOW	1011
RD72	7.8768	0.4390	0.2833	402	380	115	897	LOW	1012
JL57	10.6701	0.3701	0.0755	645	242	7	894	LOW	1013
RD38	6.5741	0.3882	0.4202	285	278	331	894	LOW	1014
NE28	8.7941	0.3442	0.3497	486	193	214	893	LOW	1015
PS17	5.8371	0.5124	0.3387	195	496	200	891	LOW	1016
RA25	6.2575	0.4021	0.4205	248	310	333	891	LOW	1017
NE13	5.3381	0.3149	0.5593	145	135	606	886	LOW	1018
JM29	6.2696	0.4125	0.4104	249	324	311	884	LOW	1019

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
CM04	6.1947	0.4066	0.4159	242	314	324	880	LOW	1020
TH18	7.8835	0.2727	0.4625	404	68	407	879	LOW	1021
RA01	5.9139	0.4079	0.4309	205	317	354	876	LOW	1022
TH20	6.3782	0.3139	0.5016	263	129	484	876	LOW	1023
PL05	8.3237	0.4075	0.2848	442	316	117	875	LOW	1024
NE16	5.2136	0.2765	0.5978	130	74	669	873	LOW	1025
PU08	6.5599	0.4557	0.3312	282	402	188	872	LOW	1026
RL04	6.5024	0.3221	0.4851	276	146	450	872	LOW	1027
RU15	6.8513	0.4317	0.3344	315	363	193	871	LOW	1028
BS10	4.1052	0.2823	0.6592	27	80	763	870	LOW	1029
JR12	6.0167	0.4464	0.3756	223	390	257	870	LOW	1030
NE19	5.3014	0.3415	0.5294	141	188	541	870	LOW	1031
JU81	6.0158	0.4346	0.3885	222	368	277	867	LOW	1032
TC09	4.9329	0.3015	0.5926	100	107	660	867	LOW	1033
JU60	6.3052	0.4700	0.3257	256	430	179	865	LOW	1034
NE17	5.6460	0.3262	0.5194	180	156	526	862	LOW	1035
RL05	5.5158	0.2665	0.5773	167	61	634	862	LOW	1036
RD62	6.7845	0.3873	0.3899	304	277	280	861	LOW	1037
YA02	5.4253	0.2836	0.5674	158	81	622	861	LOW	1038
NE47	6.4296	0.3768	0.4216	268	257	335	860	LOW	1039
RU16	5.3888	0.2952	0.5589	153	102	605	860	LOW	1040
TC01	5.8431	0.2952	0.5368	197	101	561	859	LOW	1041
TC05	5.2077	0.3391	0.5318	128	180	547	855	LOW	1042
JM36	6.0187	0.3922	0.4224	224	293	336	853	LOW	1043
NE43	5.9048	0.3736	0.4594	203	245	404	852	LOW	1044

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RD48	6.9455	0.4349	0.3114	328	370	154	852	LOW	1045
JU23	6.4357	0.4563	0.3242	270	404	174	848	LOW	1046
JM57	6.2351	0.4216	0.3751	246	345	256	847	LOW	1047
NE31	7.4820	0.4347	0.2748	374	369	104	847	LOW	1048
TC02	4.3605	0.2007	0.6768	45	12	790	847	LOW	1049
BS12	4.2560	0.2933	0.6240	35	97	707	839	LOW	1050
RU13	6.8284	0.3698	0.3943	309	241	289	839	LOW	1051
JA35	6.8253	0.4612	0.2796	308	420	108	836	LOW	1052
PS77	6.4161	0.3824	0.4045	265	270	301	836	LOW	1053
RD50	7.2686	0.4583	0.2452	354	410	72	836	LOW	1054
RU18	4.9581	0.2467	0.6117	102	41	686	829	LOW	1055
CM10	7.3570	0.4172	0.2956	363	333	132	828	LOW	1056
PU13	7.0289	0.3565	0.3857	341	211	273	825	LOW	1057
NE65	5.2385	0.3281	0.5228	132	157	530	819	LOW	1058
PL23	7.1730	0.2858	0.4517	345	84	390	819	LOW	1059
NE12	5.8429	0.3251	0.4939	196	153	465	814	LOW	1060
NE50	5.5713	0.3620	0.4645	176	225	413	814	LOW	1061
JM08	6.5692	0.4530	0.2890	283	397	123	803	LOW	1062
NE38	4.9248	0.3142	0.5413	99	132	572	803	LOW	1063
TC12	5.6884	0.3963	0.4094	187	306	308	801	LOW	1064
CM06	6.0534	0.3883	0.3963	230	279	290	799	LOW	1065
CM02	6.2862	0.4044	0.3614	253	313	232	798	LOW	1066
RD25	5.3456	0.2536	0.5579	146	51	601	798	LOW	1067
TH01	5.4386	0.3625	0.4541	160	226	392	778	LOW	1068
JL56	10.4813	0.3187	0.0171	631	142	2	775	LOW	1069

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
TH33	5.0449	0.3094	0.5289	114	121	540	775	LOW	1070
RD36	6.2881	0.3754	0.3819	254	253	265	772	LOW	1071
JM37	6.5433	0.4546	0.2627	279	401	91	771	LOW	1072
NE49	5.6629	0.3599	0.4365	184	219	363	766	LOW	1073
JR04	4.8840	0.2239	0.5908	89	19	657	765	LOW	1074
NE70	5.2597	0.3076	0.5083	138	116	506	760	LOW	1075
RU42	5.7425	0.2744	0.5069	188	70	501	759	LOW	1076
RD17	5.0253	0.3393	0.4939	110	181	466	757	LOW	1077
RL09	6.7064	0.3170	0.4147	296	139	321	756	LOW	1078
NE51	5.4570	0.3156	0.4869	163	137	452	752	LOW	1079
RD13	4.5404	0.2582	0.5782	59	54	635	748	LOW	1080
JU42	5.2449	0.3283	0.4876	135	158	454	747	LOW	1081
NE01	4.3533	0.3047	0.5538	43	110	594	747	LOW	1082
JR09	6.1210	0.4252	0.3173	235	348	162	745	LOW	1083
JR10	6.3934	0.4210	0.2928	264	343	128	735	LOW	1084
RL15	5.8734	0.2602	0.4981	200	55	480	735	LOW	1085
PL08	8.1041	0.3062	0.3259	428	114	180	722	LOW	1086
TH12	6.6346	0.3774	0.3173	290	259	163	712	LOW	1087
JR07	5.0470	0.2414	0.5364	115	35	560	710	LOW	1088
JU52	5.0156	0.3404	0.4674	108	184	415	707	LOW	1089
RU55	6.3508	0.3299	0.3936	259	162	284	705	LOW	1090
JR06	4.6858	0.2717	0.5361	78	66	559	703	LOW	1091
RD22	5.5378	0.2895	0.4827	170	90	443	703	LOW	1092
RD14	4.6023	0.2305	0.5612	65	25	607	697	LOW	1093
NE83	5.7819	0.3179	0.4364	191	140	362	693	LOW	1094

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
TH10	5.0323	0.3312	0.4626	112	165	408	685	LOW	1095
RD06	5.6106	0.2913	0.4642	177	93	411	681	LOW	1096
BS14	5.0042	0.3463	0.4425	107	197	374	678	LOW	1097
PS80	5.7734	0.3341	0.4122	190	172	314	676	LOW	1098
RD29	4.9150	0.2283	0.5353	98	23	555	676	LOW	1099
TC06	5.8457	0.3166	0.4230	198	138	339	675	LOW	1100
TH14	7.9019	0.2934	0.3230	405	98	170	673	LOW	1101
RU24	5.6130	0.3182	0.4295	178	141	348	667	LOW	1102
TH26	4.7734	0.3229	0.4751	81	149	430	660	LOW	1103
JU67	6.5266	0.4271	0.1430	278	355	15	648	LOW	1104
TC03	4.4979	0.2518	0.5300	55	48	544	647	LOW	1105
RD34	5.9647	0.3232	0.3903	211	150	281	642	LOW	1106
PL47	6.8335	0.2878	0.3693	310	88	243	641	LOW	1107
TH13	7.5601	0.2642	0.3429	378	57	206	641	LOW	1108
RD66	6.2850	0.3931	0.2586	252	295	85	632	LOW	1109
BS31	4.9035	0.3408	0.4265	94	186	345	625	LOW	1110
NE14	4.8756	0.2866	0.4817	88	87	440	615	LOW	1111
RD26	5.2093	0.2489	0.4809	129	43	436	608	LOW	1112
NE29	5.5221	0.3476	0.3637	169	198	236	603	LOW	1113
RD08	5.3666	0.3000	0.4279	151	105	346	602	LOW	1114
RL23	6.1377	0.3501	0.3162	238	202	160	600	LOW	1115
JM07	5.4668	0.3775	0.3243	164	260	175	599	LOW	1116
NE26	5.6825	0.3560	0.3388	186	210	201	597	LOW	1117
RD24	6.1256	0.2841	0.3882	236	82	276	594	LOW	1118
CU13	6.0050	0.3790	0.2795	219	263	107	589	LOW	1119

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
NE30	5.8733	0.3742	0.2995	199	250	139	588	LOW	1120
NE71	4.6395	0.2257	0.5035	72	22	492	586	LOW	1121
NE68	6.0352	0.3355	0.3267	227	174	181	582	LOW	1122
JU79	5.2561	0.4589	0.1749	137	413	28	578	LOW	1123
RD10	4.6555	0.2813	0.4732	74	79	424	577	LOW	1124
JR11	4.6225	0.3414	0.4107	68	187	312	567	LOW	1125
JU45	5.2484	0.3605	0.3449	136	222	208	566	LOW	1126
JU51	4.2516	0.2862	0.4832	34	85	444	563	LOW	1127
JU18	5.9139	0.3629	0.2948	204	227	130	561	LOW	1128
PS18	6.1597	0.3886	0.2047	240	280	41	561	LOW	1129
TH07	7.1800	0.2335	0.3299	347	27	184	558	LOW	1130
NE74	4.6206	0.2744	0.4706	67	71	418	556	LOW	1131
NE05	5.0335	0.2656	0.4444	113	59	380	552	LOW	1132
TH25	4.9130	0.3380	0.3855	97	178	272	547	LOW	1133
RD20	4.6657	0.2957	0.4381	76	103	364	543	LOW	1134
NE23	5.4009	0.3370	0.3492	154	175	211	540	LOW	1135
TC04	3.7800	0.2786	0.4821	18	76	441	535	LOW	1136
NE52	4.7883	0.2912	0.4339	83	92	357	532	LOW	1137
JU54	4.1416	0.2571	0.4849	30	53	447	530	LOW	1138
NE27	5.3257	0.3575	0.3233	143	212	171	526	LOW	1139
NE44	5.3565	0.3891	0.2538	150	284	80	514	LOW	1140
RA24	4.8866	0.3578	0.3415	90	215	204	509	LOW	1141
TH08	5.1372	0.3295	0.3572	121	161	227	509	LOW	1142
NE41	5.3009	0.3188	0.3527	140	143	220	503	LOW	1143
NE76	7.0164	0.2848	0.2479	338	83	76	497	LOW	1144

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
TH21	5.1586	0.2715	0.4102	123	65	309	497	LOW	1145
NE63	4.1346	0.2455	0.4747	29	38	429	496	LOW	1146
TH34	4.3546	0.3255	0.3999	44	154	294	492	LOW	1147
TH17	3.4013	0.2084	0.4930	11	14	464	489	LOW	1148
TH31	4.6443	0.3054	0.4014	73	113	297	483	LOW	1149
RU48	5.0729	0.3235	0.3494	117	151	213	481	LOW	1150
CU03	5.5585	0.3335	0.2976	173	170	136	479	LOW	1151
TH06	4.4238	0.2617	0.4422	51	56	372	479	LOW	1152
JA43	5.6190	0.3753	0.2030	179	252	38	469	LOW	1153
RA10	5.0264	0.3405	0.3235	111	185	172	468	LOW	1154
TC07	4.4851	0.2863	0.4181	54	86	328	468	LOW	1155
TC21	5.7883	0.3327	0.2784	192	169	106	467	LOW	1156
NE39	4.3483	0.2732	0.4307	41	69	352	462	LOW	1157
RU44	4.6589	0.2458	0.4243	75	40	340	455	LOW	1158
RD31	4.9028	0.3224	0.3404	93	147	202	442	LOW	1159
NE48	4.5808	0.2930	0.3911	63	96	282	441	LOW	1160
NE64	4.8419	0.3100	0.3535	87	124	222	433	LOW	1161
RU45	4.6191	0.2687	0.3989	66	62	293	421	LOW	1162
PS71	5.7997	0.3070	0.2824	193	115	111	419	LOW	1163
RA14	4.8370	0.3212	0.3301	86	145	185	416	LOW	1164
RU53	5.1607	0.1886	0.3822	124	9	267	400	LOW	1165
RU47	5.0719	0.3140	0.3040	116	131	145	392	LOW	1166
RD30	4.5373	0.2338	0.4051	58	28	303	389	LOW	1167
RL17	4.8949	0.2391	0.3779	91	33	260	384	LOW	1168
RD07	4.9757	0.3027	0.3218	103	109	168	380	LOW	1169

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
NE77	4.9497	0.3290	0.2611	101	159	89	349	LOW	1170
RD27	4.9059	0.2664	0.3329	96	60	191	347	LOW	1171
RA11	3.5729	0.2547	0.3812	14	52	264	330	LOW	1172
TH24	4.5595	0.2760	0.3344	61	73	194	328	LOW	1173
RD28	4.5116	0.2527	0.3513	56	49	217	322	LOW	1174
TH04	4.2815	0.2475	0.3666	39	42	239	320	LOW	1175
RU02	4.5438	0.3050	0.3053	60	112	147	319	LOW	1176
TH28	4.4176	0.3079	0.3114	49	117	153	319	LOW	1177
RU38	4.9038	0.3226	0.2291	95	148	57	300	LOW	1178
NE79	3.9571	0.2418	0.3686	20	36	241	297	LOW	1179
RA03	3.7226	0.2380	0.3693	16	31	244	291	LOW	1180
RA09	3.4955	0.2502	0.3531	12	45	221	278	LOW	1181
RD39	5.3553	0.2346	0.2689	149	29	98	276	LOW	1182
TH03	4.5131	0.3090	0.2695	57	119	99	275	LOW	1183
CM07	4.4674	0.3258	0.2362	52	155	65	272	LOW	1184
NE86	4.3066	0.2380	0.3372	40	30	198	268	LOW	1185
TH02	4.6298	0.3092	0.2476	70	120	74	264	LOW	1186
NE72	4.7800	0.3132	0.2150	82	128	49	259	LOW	1187
RD42	4.7386	0.2904	0.2492	79	91	78	248	LOW	1188
RU43	4.3761	0.2396	0.3207	46	34	167	247	LOW	1189
RU27	3.1110	0.1913	0.3557	8	10	225	243	LOW	1190
NE81	3.6626	0.2514	0.3254	15	47	177	239	LOW	1191
NE88	3.8296	0.2428	0.3295	19	37	183	239	LOW	1192
NE73	3.9871	0.2247	0.3345	21	21	195	237	LOW	1193
RU51	4.0641	0.2134	0.3370	22	15	197	234	LOW	1194

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
RU40	2.5615	0.1696	0.3518	6	7	219	232	LOW	1195
RA02	4.1064	0.2509	0.3118	28	46	155	229	LOW	1196
RU19	3.5091	0.1849	0.3420	13	8	205	226	LOW	1197
RD33	4.0683	0.2390	0.3152	23	32	157	212	LOW	1198
NE78	4.5917	0.2941	0.2148	64	99	48	211	LOW	1199
RA13	3.3377	0.2043	0.3306	9	13	186	208	LOW	1200
TH16	4.1782	0.2171	0.3161	32	16	158	206	LOW	1201
JM01	4.0976	0.3103	0.1941	26	126	36	188	LOW	1202
RU54	4.0758	0.2243	0.3013	24	20	142	186	LOW	1203
RU50	4.4176	0.2793	0.2151	48	77	50	175	LOW	1204
NE67	4.2675	0.2458	0.2654	37	39	97	173	LOW	1205
NE66	4.3510	0.2498	0.2573	42	44	84	170	LOW	1206
NE80	4.1633	0.2923	0.2068	31	94	42	167	LOW	1207
JM02	4.0844	0.2783	0.2293	25	75	58	158	LOW	1208
RU17	2.3390	0.1461	0.3000	5	5	140	150	LOW	1209
RU39	3.3393	0.1980	0.2818	10	11	110	131	LOW	1210
RU41	2.6030	0.1595	0.2650	7	6	96	109	LOW	1211
RU52	2.1706	0.1344	0.2608	4	4	88	96	LOW	1212
RA12	3.7499	0.2530	0.1395	17	50	14	81	LOW	1213
RU49	2.0363	0.1223	0.2311	3	3	59	65	LOW	1214
BS05	1.7180	0.0878	0.1856	2	2	32	36	LOW	1215
AO01	0.0000	0.0000	0.0000	1	1	1	3	LOW	1216
AO03	0.0000	0.0000	0.0000	1	1	1	3	LOW	1217
AO05	0.0000	0.0000	0.0000	1	1	1	3	LOW	1218
AO12	0.0000	0.0000	0.0000	1	1	1	3	LOW	1219

2020 Report Dataset	Unit Area Loads			Sorted Sequence (Rank Order) between HUs for each Pollutant's Load					
VAHU6	Ag N (kg/Ag ha-yr)	Ag P (kg/Ag ha-yr)	Ag S (mt/Ag ha-yr)	NSEQ	PSEQ	SSEQ	Sum Order	Agricultural Pollutant Potential Rank	Row #
AO16	0.0000	0.0000	0.0000	1	1	1	3	LOW	1220
AO19	0.0000	0.0000	0.0000	1	1	1	3	LOW	1221
AO20	0.0000	0.0000	0.0000	1	1	1	3	LOW	1222
AO22	0.0000	0.0000	0.0000	1	1	1	3	LOW	1223
AO25	0.0000	0.0000	0.0000	1	1	1	3	LOW	1224
CB27	0.0000	0.0000	0.0000	1	1	1	3	LOW	1225
CB28	0.0000	0.0000	0.0000	1	1	1	3	LOW	1226
CB34	0.0000	0.0000	0.0000	1	1	1	3	LOW	1227
CB37	0.0000	0.0000	0.0000	1	1	1	3	LOW	1228
JL50	0.0000	0.0000	0.0000	1	1	1	3	LOW	1229
JU16	0.0000	0.0000	0.0000	1	1	1	3	LOW	1230
NE89	0.0000	0.0000	0.0000	1	1	1	3	LOW	1231
NE90	0.0000	0.0000	0.0000	1	1	1	3	LOW	1232
PL27	0.0000	0.0000	0.0000	1	1	1	3	LOW	1233
PL28	0.0000	0.0000	0.0000	1	1	1	3	LOW	1234
PU21	0.0000	0.0000	0.0000	1	1	1	3	LOW	1235
TH05	0.0000	0.0000	0.0000	1	1	1	3	LOW	1236
TH46	0.0000	0.0000	0.0000	1	1	1	3	LOW	1237
TP01	0.0000	0.0000	0.0000	1	1	1	3	LOW	1238
TP03	0.0000	0.0000	0.0000	1	1	1	3	LOW	1239
TP19	0.0000	0.0000	0.0000	1	1	1	3	LOW	1240

Attachment B

Drainage Basins in Each Soil and Water Conservation District

SWCD	Location
APPOMATTOX RIVER	Both
BIG SANDY	OCB
BIG WALKER	OCB
BLUE RIDGE	Both
CHOWAN BASIN	OCB
CLINCH VALLEY	OCB
COLONIAL	CB
CULPEPER	CB
DANIEL BOONE	OCB
EASTERN SHORE	Both
EVERGREEN	OCB
HALIFAX	OCB
HANOVER-CAROLINE	CB
HEADWATERS	CB
HENRICOPOLIS	CB
HOLSTON RIVER	OCB
JAMES RIVER	Both
JOHN MARSHALL	CB
LAKE COUNTRY	OCB
LONESOME PINE	OCB
LORD FAIRFAX	CB
LOUDOUN	CB
MONACAN	CB
MOUNTAIN	CB
MOUNTAIN CASTLES	Both
NATURAL BRIDGE	CB
NEW RIVER	OCB
NORTHERN NECK	CB
NORTHERN VA	CB
PATRICK	OCB
PEAKS OF OTTER	Both
PEANUT	Both
PETER FRANCISCO	CB
PIEDMONT	Both
PITTSYLVANIA	OCB
PRINCE WILLIAM	CB
ROBERT E. LEE	Both
SCOTT COUNTY	OCB
SHENANDOAH VALLEY	CB
SKYLINE	Both
SOUTHSIDE	OCB
TAZEWELL	OCB
THOMAS JEFFERSON	CB
THREE RIVERS	CB
TIDEWATER	CB
TRI-COUNTY/CITY	CB
VIRGINIA DARE	Both

Attachment C

This attachment provides data by Drainage Basin (CB and OCB), District, Agricultural Pollutant Potential Rank (H, M, and L), Total Area (acres) of Hydrologic Units in each District by Agricultural Pollutant Potential Rank and Drainage Basin, and the resulting Percentage Rank (Cost-share Multiplier).

Drainage Basin	SWCD Number	District Name	Agricultural Pollutant Potential Rank	Total Agricultural Area (acres) of Hydrologic Units in each District by Agricultural Pollutant Potential Rank and Drainage Basin	Percentage AGLAND Rank (Cost-share Multiplier)
CB	1	TIDEWATER	HIGH	4887.500407	0.005870222
CB	1	TIDEWATER	MED	28995.3885	0.035055269
CB	1	TIDEWATER	LOW	2953.52736	0.003588317
CB	2	THOMAS JEFFERSON	HIGH	7127.917333	0.008561115
CB	2	THOMAS JEFFERSON	MED	46984.33914	0.056803814
CB	2	THOMAS JEFFERSON	LOW	147393.4072	0.179072075
CB	3	SOUTHSIDE	HIGH	0	0
CB	3	SOUTHSIDE	MED	0	0
CB	3	SOUTHSIDE	LOW	59.2441269	7.19772E-05
CB	4	NATURAL BRIDGE	HIGH	484.8315415	0.000582316
CB	4	NATURAL BRIDGE	MED	11375.03248	0.013752353
CB	4	NATURAL BRIDGE	LOW	69520.19377	0.084461887
CB	5	PIEDMONT	HIGH	7269.355424	0.008730992
CB	5	PIEDMONT	MED	47203.49882	0.057068777
CB	5	PIEDMONT	LOW	38975.51323	0.047352362
CB	6	BLUE RIDGE	HIGH	0	0
CB	6	BLUE RIDGE	MED	0	0
CB	6	BLUE RIDGE	LOW	3202.866795	0.003891246
CB	7	CULPEPER	HIGH	85333.42485	0.102491266
CB	7	CULPEPER	MED	82575.72283	0.099833606
CB	7	CULPEPER	LOW	95208.80451	0.115671647
CB	8	NORTHERN NECK	HIGH	71099.79046	0.0853957
CB	8	NORTHERN NECK	MED	35455.53411	0.042865551
CB	8	NORTHERN NECK	LOW	0	0
CB	9	SHENANDOAH VALLEY	HIGH	141140.4741	0.169519341
CB	9	SHENANDOAH VALLEY	MED	63642.27635	0.076943171

CB	9	SHENANDOAH VALLEY	LOW	1325.292216	0.001610132
CB	10	ROBERT E. LEE	HIGH	1114.535414	0.001338633
CB	10	ROBERT E. LEE	MED	14126.19284	0.017078491
CB	10	ROBERT E. LEE	LOW	58575.90997	0.071165393
CB	12	JAMES RIVER	HIGH	8349.322225	0.010028106
CB	12	JAMES RIVER	MED	5784.618802	0.006993573
CB	12	JAMES RIVER	LOW	3447.4099	0.004188348
CB	13	LORD FAIRFAX	HIGH	70161.11057	0.084268281
CB	13	LORD FAIRFAX	MED	85749.41249	0.10367058
CB	13	LORD FAIRFAX	LOW	79542.32744	0.096638037
CB	14	SKYLINE	HIGH	0	0
CB	14	SKYLINE	MED	0	0
CB	14	SKYLINE	LOW	165.175844	0.000200676
CB	15	PEANUT	HIGH	44185.12398	0.053069349
CB	15	PEANUT	MED	11384.62066	0.013763945
CB	15	PEANUT	LOW	0	0
CB	16	MOUNTAIN	HIGH	1295.888387	0.00155645
CB	16	MOUNTAIN	MED	20471.95086	0.024750479
CB	16	MOUNTAIN	LOW	63791.36539	0.077501785
CB	17	TRI-COUNTY/CITY	HIGH	23937.66828	0.028750773
CB	17	TRI-COUNTY/CITY	MED	28550.05699	0.034516866
CB	17	TRI-COUNTY/CITY	LOW	2578.416518	0.003132585
CB	18	COLONIAL	HIGH	31860.55164	0.038266697
CB	18	COLONIAL	MED	2291.081763	0.002769906
CB	18	COLONIAL	LOW	1641.633487	0.001994463
CB	20	EASTERN SHORE	HIGH	0	0
CB	20	EASTERN SHORE	MED	63149.85176	0.076347832
CB	20	EASTERN SHORE	LOW	0	0
CB	21	NORTHERN VIRGINIA	HIGH	48.05920122	5.77224E-05
CB	21	NORTHERN VIRGINIA	MED	1179.969752	0.001426577
CB	21	NORTHERN VIRGINIA	LOW	2204.235973	0.002677983
CB	22	VIRGINIA DARE	HIGH	0	0
CB	22	VIRGINIA DARE	MED	4514.884815	0.005458472
CB	22	VIRGINIA DARE	LOW	0.002554824	3.10392E-09
CB	30	HANOVER-CAROLINE	HIGH	79252.26923	0.095187383
CB	30	HANOVER-CAROLINE	MED	12363.3455	0.014947218
CB	30	HANOVER-CAROLINE	LOW	990.3269752	0.001203174

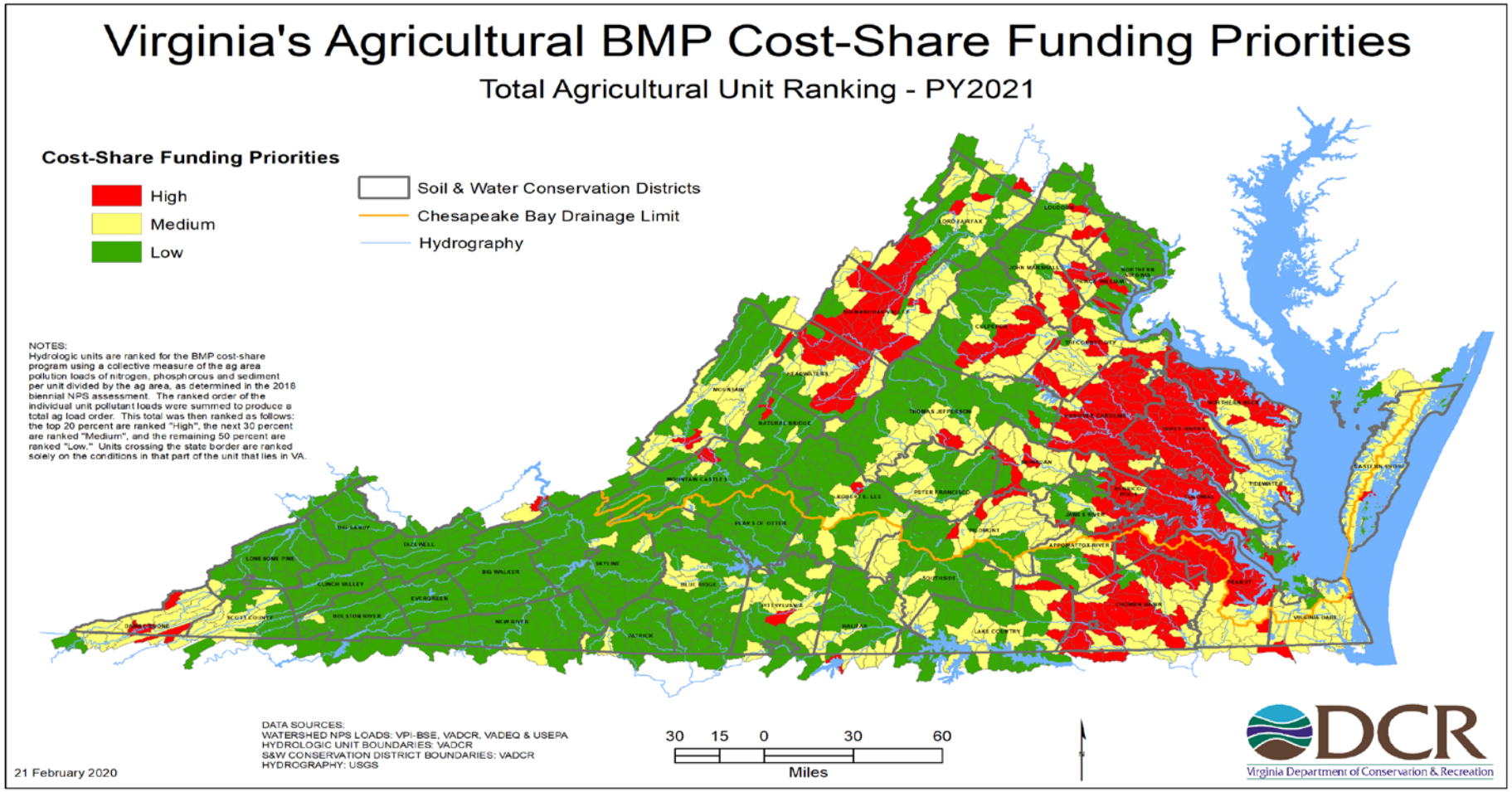
CB	32	JOHN MARSHALL	HIGH	19665.95158	0.02362015
CB	32	JOHN MARSHALL	MED	71228.12429	0.086114421
CB	32	JOHN MARSHALL	LOW	50224.69917	0.06101929
CB	34	PEAKS OF OTTER	HIGH	0	0
CB	34	PEAKS OF OTTER	MED	0	0
CB	34	PEAKS OF OTTER	LOW	6945.207093	0.008437912
CB	35	PRINCE WILLIAM	HIGH	6940.877009	0.008336467
CB	35	PRINCE WILLIAM	MED	14822.35392	0.017920146
CB	35	PRINCE WILLIAM	LOW	330.9806667	0.000402117
CB	36	LOUDOUN	HIGH	3718.615613	0.004466311
CB	36	LOUDOUN	MED	30306.23712	0.036640078
CB	36	LOUDOUN	LOW	70128.24576	0.085200625
CB	38	MONACAN	HIGH	11376.49468	0.013663946
CB	38	MONACAN	MED	33314.7763	0.040277386
CB	38	MONACAN	LOW	7869.867931	0.009561307
CB	39	PETER FRANCISCO	HIGH	1737.232452	0.002086535
CB	39	PETER FRANCISCO	MED	32315.2573	0.039068973
CB	39	PETER FRANCISCO	LOW	41970.5606	0.050991123
CB	40	HENRICOPOLIS	HIGH	9187.209261	0.011034465
CB	40	HENRICOPOLIS	MED	1416.786028	0.001712887
CB	40	HENRICOPOLIS	LOW	362.5589037	0.000440482
CB	41	HEADWATERS	HIGH	106146.8486	0.127489608
CB	41	HEADWATERS	MED	63139.63876	0.076335485
CB	41	HEADWATERS	LOW	20776.37295	0.025241755
CB	42	APPOMATTOX RIVER	HIGH	768.7443223	0.000923314
CB	42	APPOMATTOX RIVER	MED	4332.950834	0.005238514
CB	42	APPOMATTOX RIVER	LOW	349.8932562	0.000425094
CB	43	THREE RIVERS	HIGH	93325.09434	0.112089807
CB	43	THREE RIVERS	MED	6673.790315	0.008068577
CB	43	THREE RIVERS	LOW	0	0
CB	45	MOUNTAIN CASTLES	HIGH	2177.270165	0.00261505
CB	45	MOUNTAIN CASTLES	MED	3785.831985	0.004577051
CB	45	MOUNTAIN CASTLES	LOW	52561.39577	0.063858203
OCB	3	SOUTHSIDE	HIGH	112.7137361	0.000663188
OCB	3	SOUTHSIDE	MED	36307.41155	0.061162604
OCB	3	SOUTHSIDE	LOW	57670.07314	0.040182884
OCB	5	PIEDMONT	HIGH	0	0

OCB	5	PIEDMONT	MED	2708.947953	0.004563429
OCB	5	PIEDMONT	LOW	10899.76487	0.007594649
OCB	6	BLUE RIDGE	HIGH	0	0
OCB	6	BLUE RIDGE	MED	28005.99304	0.047178231
OCB	6	BLUE RIDGE	LOW	99411.38664	0.069267056
OCB	10	ROBERT E. LEE	HIGH	0	0
OCB	10	ROBERT E. LEE	MED	38280.03375	0.064485637
OCB	10	ROBERT E. LEE	LOW	39550.13987	0.027557424
OCB	11	NEW RIVER	HIGH	0	0
OCB	11	NEW RIVER	MED	2621.184822	0.004415586
OCB	11	NEW RIVER	LOW	146698.5189	0.102215399
OCB	12	JAMES RIVER	HIGH	9642.828369	0.056736693
OCB	12	JAMES RIVER	MED	1200.894552	0.002022998
OCB	12	JAMES RIVER	LOW	295.862069	0.000206148
OCB	14	SKYLINE	HIGH	456.3285621	0.002684956
OCB	14	SKYLINE	MED	5591.585806	0.009419453
OCB	14	SKYLINE	LOW	194732.173	0.135683898
OCB	15	PEANUT	HIGH	30499.70525	0.17945486
OCB	15	PEANUT	MED	54078.46902	0.091099306
OCB	15	PEANUT	LOW	0	0
OCB	19	CHOWAN BASIN	HIGH	93355.44244	0.549286878
OCB	19	CHOWAN BASIN	MED	74314.33607	0.125188168
OCB	19	CHOWAN BASIN	LOW	3245.530531	0.002261394
OCB	20	EASTERN SHORE	HIGH	1413.089252	0.008314367
OCB	20	EASTERN SHORE	MED	45668.45257	0.076931992
OCB	20	EASTERN SHORE	LOW	0	0
OCB	22	VIRGINIA DARE	HIGH	42.04510977	0.000247386
OCB	22	VIRGINIA DARE	MED	57212.50783	0.096378833
OCB	22	VIRGINIA DARE	LOW	0	0
OCB	23	HOLSTON RIVER	HIGH	0	0
OCB	23	HOLSTON RIVER	MED	2466.851707	0.0041556
OCB	23	HOLSTON RIVER	LOW	103523.3069	0.072132127
OCB	24	DANIEL BOONE	HIGH	10681.73705	0.062849448
OCB	24	DANIEL BOONE	MED	53763.47527	0.090568675
OCB	24	DANIEL BOONE	LOW	0	0
OCB	25	CLINCH VALLEY	HIGH	0	0
OCB	25	CLINCH VALLEY	MED	0	0

OCB	25	CLINCH VALLEY	LOW	87570.94866	0.061016972
OCB	26	SCOTT COUNTY	HIGH	102.7728656	0.000604697
OCB	26	SCOTT COUNTY	MED	29250.61563	0.049274893
OCB	26	SCOTT COUNTY	LOW	35216.98969	0.024538207
OCB	27	LONESOME PINE	HIGH	0	0
OCB	27	LONESOME PINE	MED	224.145551	0.00037759
OCB	27	LONESOME PINE	LOW	20812.52893	0.014501584
OCB	28	EVERGREEN	HIGH	0	0
OCB	28	EVERGREEN	MED	0	0
OCB	28	EVERGREEN	LOW	64963.79496	0.045264944
OCB	29	TAZEWELL	HIGH	0	0
OCB	29	TAZEWELL	MED	0	0
OCB	29	TAZEWELL	LOW	64950.38467	0.0452556
OCB	31	PITTSYLVANIA	HIGH	6773.606838	0.039854702
OCB	31	PITTSYLVANIA	MED	61051.85147	0.102846501
OCB	31	PITTSYLVANIA	LOW	74458.13513	0.051880333
OCB	33	HALIFAX	HIGH	19.95938022	0.000117437
OCB	33	HALIFAX	MED	27045.10404	0.045559541
OCB	33	HALIFAX	LOW	68615.69293	0.047809484
OCB	34	PEAKS OF OTTER	HIGH	0	0
OCB	34	PEAKS OF OTTER	MED	0	0
OCB	34	PEAKS OF OTTER	LOW	104199.1397	0.072603028
OCB	37	BIG WALKER	HIGH	0	0
OCB	37	BIG WALKER	MED	0	0
OCB	37	BIG WALKER	LOW	135584.1868	0.094471245
OCB	42	APPOMATTOX RIVER	HIGH	7546.888646	0.044404555
OCB	42	APPOMATTOX RIVER	MED	13930.40813	0.023466835
OCB	42	APPOMATTOX RIVER	LOW	10968.81889	0.007642764
OCB	44	PATRICK	HIGH	0	0
OCB	44	PATRICK	MED	4688.483217	0.007898108
OCB	44	PATRICK	LOW	40393.86206	0.028145306
OCB	45	MOUNTAIN CASTLES	HIGH	0	0
OCB	45	MOUNTAIN CASTLES	MED	70.2974991	0.000118421
OCB	45	MOUNTAIN CASTLES	LOW	15571.04663	0.010849467
OCB	46	LAKE COUNTRY	HIGH	9310.415041	0.054780832
OCB	46	LAKE COUNTRY	MED	55140.03693	0.092887598
OCB	46	LAKE COUNTRY	LOW	51336.40851	0.035769765

OCB	47	BIG SANDY	HIGH	0	0
OCB	47	BIG SANDY	MED	0	0
OCB	47	BIG SANDY	LOW	4521.306075	0.003150319

Attachment D



VIRGINIA AGRICULTURAL BMP COST-SHARE (VACS) PROGRAM GUIDELINES

Overview

This Program provides cost-share and technical assistance to landowners and agricultural operators that voluntarily install selected BMPs. The guidelines set out in this section complement the policy and procedural direction provided in Section I of this guidance document and should be taken together in implementing the Program and its associated BMPs.

Program Eligibility Requirements

Program eligibility requirements are provided in **Section I**. Any financial records supplied by an applicant to verify eligibility will not be duplicated or retained by the District. Participation in Virginia's cost-share or tax credit program does not convey the public's right to access the participant's property.

Definition of Applicant

All individuals and privately held business entities operating agricultural land within the boundaries of the Commonwealth of Virginia are eligible to apply and participate in the Virginia Agricultural BMP Cost-Share Program. When an individual or entity operates land not within the boundaries of a Soil and Water Conservation District, the District that has the landowner's hydrologic unit listed in this Manual will administer the program to the landowner.

Land owned and managed by municipalities or other federal and state governmental agencies or partitions thereof are **not eligible** to receive Virginia cost-share assistance. Lands located outside of the state are **not eligible** unless a portion of the field or site in need of treatment lies within Virginia's boundary, in which case the entire field or site in need of treatment is eligible.

District service areas approved by the Virginia Soil and Water Conservation Board have historically followed county borders. Agricultural fields may cross county borders and therefore a field may exist in more than one District. Additionally there may be discrepancies as to which District a given parcel resides in based upon tax parcel maps, boundary surveys, or other bona-fide documentation. In 2016, DCR reviewed county boundaries and tax parcel boundaries and adjusted some county boundaries to better follow legal tax parcel maps. For the purposes of this cost-share program only, Districts are urged to utilize the county boundary layer available in the AgBMP Tracking Module to determine the District that will administer the Virginia Agricultural BMP Cost-Share Program. Absent clarity of cost-share oversight authority for a given field from the revised boundary layer map, the District having the largest amount of acreage within its boundaries should administer the Program for the entire field. However, alternatively, if neighboring Districts can cooperatively agree to utilize other existing boundary determination methodologies, those sources may be utilized.

Districts will establish local water quality considerations (see secondary considerations) to serve as guidance for determining which applications will receive cost-share and tax credit approvals. These considerations must be consistently administered when considering any BMP for approval.

Cost-share payments are made to the entity (by social security or federal tax identification number) that applies and signs the request form to participate in the program. The applicant must have a current federal tax form W-9 on file with the District to assure that correct tax information for the applicant is available for reporting purposes. Districts will issue cost-share and/or state tax credits, as well as IRS 1099 tax forms, to applicants based upon W-9 data on file with that District. The VACS Program only allows Districts to issue two-party or co-payee (two payee signatures required) cost-share checks to lending institutions. For participants in the Virginia Department of Environmental Quality's Agricultural BMP Loans Program, DCR has approved an Assignment of Payment Form which, if signed by the applicant, allows the cost-share payment to be sent directly to the Virginia Resource Authority. In such situations, the applicant will still receive the IRS 1099 tax forms.

Applicants, as defined in Section I. 4, may self-certify that they meet the eligibility criteria set out in Section I. A self-certification form is included in the Glossary and Forms section of the BMP Manual. Districts may request that applicants' provide proof of agricultural production.

When an applicant agrees to implement the approved BMP for the specified lifespan, the applicant is responsible for that BMP regardless of changes in the control of the land including the sale of the property as well as any change in farm lease arrangements. Maintenance agreements between the involved parties can be encouraged, but ultimate responsibility still rests with the applicant. Districts may choose to encourage landowner participation over tenant participation in their information and promotional campaigns.

Failure to maintain the practice for the specified lifespan will result in the applicant being required to refund all or part of the state provided cost-share and/or tax credit amount. In the case of the death of the participant this requirement may be waived. This waiver requires an official action of the District Board that must be recorded in the minutes.

Authority for Officers and Employees or Immediate Family Member of an Officer or Employee of Districts to Participate in the VACS Program

The State and Local Government Conflict of Interests Act (COIA) provides an exception to the prohibition against officers and employees or an immediate family member of an officer or employee to engage a contract with the officer or employee's employing agency. As of July 1, 2017, contracts are allowed between an officer, an employee, or an immediate family member of an officer or employee of a District to participate in the Virginia Agricultural Best Management Practices Cost-Share Program or to participate in other cost-share programs for the installation of best management practices to improve water quality. The exception does not apply to subcontracts or other agreements to provide services for implementation of a cost-share contract established under the Program or other such cost-share programs. A District Director or employee cannot lawfully enter into a contract with a program participant to provide services for the cost-share practice.

History

The VACS Program originated in 1984 with a small number of eligible BMPs and has continually added and revised BMPs in response to ever changing non-point source pollution and agricultural issues. Many of these changes have been influenced by the agricultural non-point source research and BMP development priorities of the Chesapeake Bay Program. For many

years, the VACS Program provided funds for the demonstration of BMPs and the education of agricultural operators about innovative management and conservation methods.

The VACS Program continues to evolve with ever increasing emphasis on the implementation of agricultural BMPs in locations that provide the greatest nutrient and sediment reductions for the taxpayer's dollar spent. This focused program's mission requires an understanding and commitment by all of those that have a role in program outreach and implementation. Cost-shared BMPs must maximize nutrient and sediment reductions and also protect the taxpayer's interest, by implementing the most cost-effective BMPs possible in locations that achieve the greatest pollutant reductions on a field by field basis. Program implementation should be based upon sound conservation planning and best professional judgment.

The 1987 Chesapeake Bay Agreement committed the Environmental Protection Agency (EPA) in collaboration with Pennsylvania, the District of Columbia, Maryland, and Virginia to reduce by 40%, nutrient inputs to the Chesapeake Bay. Virginia has historically supported the Chesapeake Bay restoration effort through program participation, the development of compatible agricultural BMPs, and by dedicating certain funding streams to address identified Bay and tributary nonpoint source (NPS) pollution issues. The inclusion of the Chesapeake Bay on the federal list of impaired waters and the development of Virginia's Chesapeake Bay Watershed Implementation Plan (WIP) has increased Virginia's efforts to further reduce agricultural non-point source pollution.

Historical Cost-Effective Practices

In December of 2004, the Chesapeake Bay Commission (CBC) published a booklet entitled "Cost Effective Strategies for the Bay". An analysis of BMP applicability, practice cost-effectiveness, and the availability of land to implement the BMPs has identified practices that have the potential to deliver the largest nutrient and sediment reductions for the least cost to the taxpayer. Virginia identified Nutrient Management Plan Writing and Revisions NM-1 (now NM-1A), side dressing and split nutrient applications, (NM-3C, NM-4), Cover Crop practices, (SL-8, SL-8B, SL-8H, and WQ-4), along with Long Term Vegetative Cover on Cropland (SL-1), and High Residue Tillage Systems (SL-15A, SL-15B) as the "most cost-effective BMPs" available through the VACS Program at that time. Since the identification of this initial list of BMPs, precision nutrient management (NM-5N and NM-5P), livestock exclusion practices (SL-6), as well as riparian buffer practices (FR-3) have been added to the list.

To maximize Virginia's return on stakeholder time and taxpayer funding, as well as to increase cost-effective nutrient and sediment reductions, the above BMPs should be actively promoted by Districts and implemented wherever agricultural land operators are willing to have them applied. Cost-share allocations will be provided to Districts to obligate in the Chesapeake Bay (CB) or Outside of the Chesapeake Bay (OCB) drainage basin as the local District Board believes will best benefit local water quality.

VACS Program Funding Sources and Interest Income Earned

The primary source of funding for the VACS Program is from deposits made to the Water Quality Improvement Fund (WQIF) or directly to the Virginia Natural Resources Commitment Fund (VNRCF), a sub-fund of the WQIF created in 2008 to specifically support implementation of agricultural BMPs. The General Assembly has declared that the purpose of the funds

deposited to the WQIF is to provide water quality improvement grants to local governments, Soil and Water Conservation Districts, state agencies, institutions of higher education, and individuals for point and nonpoint source pollution prevention, reduction, and control programs. The 2010 Virginia General Assembly authorized an increase in the real estate recordation fee collected for recording land transactions. These additional locally collected fees are deposited in the VNRCF on a monthly basis. The projected recordation fee revenues are collected each fiscal year along with any other General Fund, WQIF, and VNRCF deposits, as specified in the Appropriations Act, for implementation of agricultural BMPs.

Other funds from state and federal sources may support the Program and may include monies from federal grants. Some Districts also administer other grant programs or locally funded agricultural incentive programs to encourage owners and operators of agricultural lands to apply BMPs that control sediment, nutrient loss and the transport of pollutants, or protect the health of riparian and aquatic ecosystems, and improve the quality of state waters. Many Districts administer multiple conservation programs focused on the reduction of surface runoff, erosion, leaching, bacterial contaminants, and inadequate animal waste management.

Distributions from sources identified above are set out in Section I and Districts are provided with details about funding allocations at the beginning of the state fiscal year. Details describing administrative and programmatic deliverables are documented in grant agreements signed by DCR and District Boards of Directors.

Program funds will be administered based upon signed cost-share grant agreements. DCR generates the cost-share grant agreement itemizing DCR and District deliverables associated with VACS Program implementation. Districts may supplement the cost-share funds provided by DCR with District funds and/or other sources that may be available to them. However, any cost-share funds issued by DCR to Districts are dedicated to the implementation of VACS practices. Districts must abide by these program guidelines when using these funds. Funds for implementing VACS BMPs in the CB drainage basin and OCB drainage basin shall be managed separately as the proportion of the overall funds for use within each drainage basin is controlled by the Code of Virginia and Appropriations Act language.

All interest monies earned on cost-share funds issued to each District by DCR must be used solely for cost-share purposes. Interest monies may be devoted to reasonable program expenses such as fees charged for bank services that are related to VACS Program monies. Ideally the interest income earned is dedicated to additional approved VACS BMPs.

Cost-share Program Funding Allocations

Districts are provided funds for the VACS Program designated to be spent in the Chesapeake Bay (CB) or outside of the Chesapeake Bay (OCB) drainage basins to encourage implementation of BMPs in high priority hydrologic units in accordance with Section I. District locations are illustrated on the map found on page II-53. Districts should approve and obligate funds emphasizing identified high priority watersheds and site-specific cost-effective BMPs in accordance with minimum statewide or priority considerations and approved secondary or local water quality considerations to provide the greatest nutrient and sediment reductions at the least cost to the tax payer.

Conservation District Coordinators (CDC) will confer with District staff at least quarterly to

determine their projected needs for cost-share payments for completed and certified BMPs. CDCs will generate a disbursement letter based upon their District's projected ninety-day needs and AgBMP Tracking Module data showing approved and completed practices.

Reallocation of VACS Cost-share Funds

Details regarding the reallocation process may be found in the *Virginia Soil and Water Conservation Board Policy and Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Funding Allocations* as well as the *Department of Conservation and Recreation and Virginia Soil and Water Conservation District Cost-Share and Technical Assistance Grant Agreement*.

Technical Assistance Funding

Details regarding the allocation for technical assistance funds to Districts may be found in the *Virginia Soil and Water Conservation Board Policy and Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Funding Allocations* as well as the *Department of Conservation and Recreation and Virginia Soil and Water Conservation District Cost-Share and Technical Assistance Grant Agreement*.

The State and Local Government Conflict of Interests Act

The State and Local Government Conflict of Interests Act (COIA), Va. Code § 2.2-3100 et seq., prohibits a range of behavior relating to impermissible conflicts. COIA, along with federal corruption statutes, applies to public officials and employees of the Soil and Water Conservation Districts. The law provides for both civil and criminal penalties for violations. District officers and District employees who question whether certain conduct would violate COIA should ask legal counsel at the Office of the Attorney General for an opinion and may rely on such advice as a shield to prosecution pursuant to Code § 2.2-3121.

Officers and staff should review COIA. This guidance does not serve as legal advice or a substitute for a review of COIA. For example, a potential conflict of interest exists when an District Director or District staff person (or an immediate family member) has a material personal interest, either direct or indirect, in an application for cost-share or tax credit being considered by a Board of Directors (BOD), or by a committee of the BOD, that the affected Director or staff person participates on, that will discuss or decide if the cost-share or tax credit application is approved. There are many other possible examples including supervising family members who are on staff or securing a contract with the District other than a contract for employment.

When a possible conflict of interest is identified, the Director or staff person must disclose to the Board or other committee members the material facts as to their personal interest in the transaction or in any corporation, partnership, association or other organization that may receive financial benefit as a result of the decision of the BOD or committee.

After disclosure of the possible conflict of interest, the Director or staff person (interested individual) shall leave the room prior to the discussion of the application. The interested individual shall not participate in any discussion or in making any decision or recommendation

associated with the application. Such action by the interested individual shall be noted in the minutes of the BOD or committee. The interested individual may return to the room and resume participation in the proceedings once all discussions have concluded and all decisions or recommendations rendered pertaining to the application.

Participant Recruitment, Application Ranking, and BMP Approval

The Virginia Agricultural BMP Cost-Share Program gives Districts the responsibility to determine the recipients of state cost-share funds. Districts recruit and evaluate applications which result in improved water quality. Recruitment involves the establishment of local District criteria, which are important for several reasons. Selection of criteria which address local water quality ensures that the water quality benefits from this program are maximized. Clearly understood priorities make the approval process much easier and minimize possible misunderstandings.

Districts should recruit participants from hydrologic units in descending priority, first recruiting participation of lands within a high priority hydrologic unit. Cost-share requests in a medium or low priority hydrologic unit(s) may be considered for funding after high priority hydrologic units have been addressed. A District may shift recruitment efforts from a higher priority hydrologic unit to address a specific site-related water quality problem, such as a Total Maximum Daily Load (TMDL), that can be resolved utilizing available BMPs.

The objective of the VACS Program is to prioritize and address water quality problems. The 2020 agricultural non-point source ranking of the units of the Virginia National Watershed Boundary Database (NWBD) currently provides the most accurate identification, at a landscape scale, of the lands with the greatest potential to contribute agricultural non-point source pollution into Virginia's rivers and streams. These rankings are excerpted from the Virginia Department of Conservation and Recreation's Agricultural Non-Point Source Pollution Assessment (NPS Assessment) which is included in the 305(b)/303(d) Water Quality Assessment Integrated Report prepared by the Virginia Department of Environmental Quality as required under the federal Clean Water Act.

Factors in this NPS Assessment which affect the amount of nutrient loads reaching water from agricultural lands include the erodibility of the soils, types of agricultural practices, types and numbers of farm animals, land cover, stream density, rainfall, seasonal variations in plant growth and nutrient applications, existence and type of agricultural BMPs, manure use, soil saturation, and slope.

Districts should recruit applicants for whom BMP implementation will reduce the greatest amount of nutrient, sediment, and other identified contaminants, while utilizing the least amount of cost-share funds to address site-specific water quality problems in the highest priority watersheds. The District Board should annually review and establish recruitment guidelines. Recruitment guidelines and secondary considerations should be District Board-approved several months before the VACS Program Year begins on July 1. Districts may find it valuable to hold public meetings and allow public comment and input in developing these criteria. The District should advertise approved VACS Program ranking criteria and make participants aware of changes in guidance which may impact them.

Districts are strongly encouraged to conduct recruitment of program participants on a continuous basis, thus identifying future funding needs.

Approval of VACS Program funding requests is the responsibility of the local District Board of Directors. All actions taken must be voted upon and the outcome recorded in the minutes of the meeting where such action is taken. Districts should be prepared to verify and document that their cost-share allocations are being spent in accordance with the priority and secondary considerations and according to administrative guidance published in this Manual.

Priority Considerations (Statewide Water Quality Considerations)

These must be used by all Districts to qualify cost-share applications for funding approval consideration by the District Board. Any application that does not meet at least one of these priority considerations discussed below should not receive funding:

1. Priority must be given first to candidates in the highest ranked hydrologic units. See Pages II-54 - II-55 for the NWBD unit list and the Policy section for rankings. Multi-county Districts may select a priority hydrologic unit from each county for recruitment. Descending priority would be given to those in units ranked "medium", and then units ranked "low".

   Districts should prioritize the implementation of appropriate BMPs that will reduce the greatest amount of nutrient and sediment contamination while utilizing the least amount of cost-share funds to address site-specific water quality problems in identified high priority hydrologic units with all program cost-share funds.

2. Applications for cost-share funding that are located within a designated NPS impaired waters drainage area (identified as *Impairment Type* in the AgBMP Tracking Module mapping) shall be prioritized for funding of practices that reduce the identified impairment type (nutrient, bacteria, septic).

3. Applications for cost-share funding on fields that are at least 1/3 HEL (Highly Erodible Land) soils receive priority.

4. Applications for cost-share to implement BMPs that are within an approved Virginia Resource Management Plan management area will also receive priority consideration over similar BMPs outside of the management area. The AgBMP Tracking Module will automatically calculate a 10% reduction in the CEF score for these BMPs.

Exceptions to the priority considerations may be made for animal waste management practices and for actions taken to protect groundwater, gully erosion, or critical areas. The following list of practices are priorities and do not need to meet any other priority consideration in order to be eligible for cost-share funding:

NM-1A	Nutrient Management Plan Writing and Revisions
NM-5N	Precision Nutrient Management on Cropland – Nitrogen Application
NM-5P	Precision Nutrient Management on Cropland – Phosphorous Application
SL-6N	Stream Exclusion with Narrow Width Buffer and Grazing Land Management

SL-6W	Stream Exclusion with Wide Width Buffer and Grazing Land Management
SL-8B	Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management
SL-11	Permanent Vegetative Cover on Critical Areas
WP-1	Sediment Retention, Erosion or Water Control Structures
WP-3	Sod Waterway
WP-4	Animal Waste Control Facilities
WP-4B	Dairy Loafing Lot Management System
WP-4C*	Composter Facilities
WP-4FP*	Feeding Pad
WP-4LC	Animal Waste Control Facility for Confined Livestock Operations
WP-4LL	Loafing Lot Management System with Manure Management (Excluding Bovine Dairy)
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage
WQ-1	Grass Filter Strips
FR-3	Woodland Buffer Filter Area

*WP-4C and WP-4FP may only be treated as priority practices if they are a part of a combined contract that also funds a SL-6N, SL-6W, or WP-4.

Secondary Considerations (Local Water Quality Considerations)

Any VACS application which qualifies for funding using primary considerations should then be ranked against a list of "secondary considerations". Secondary considerations are utilized by Districts to prioritize applications that address locally identified water quality concerns. Secondary considerations should be narrative statements that can be easily understood by any potential participant.

The District Board must identify their local water quality concerns and then develop and approve a list of secondary considerations ranking criteria which give priority to those applications which would address those water quality concerns. The secondary considerations adopted by a District must be submitted to the Agricultural Incentives Program Manager for review and approval before any cost-share applications are approved. Once approved and accepted, each District will be expected to adhere to these guidelines when authorizing practice approvals for the entire fiscal year. Revised secondary considerations may not be implemented until the beginning of the next fiscal year. After such guidelines are in place, VACS recruitment by staff may begin in accordance with the expressed priorities.

The list of criteria adopted as "secondary considerations" by each Board may be as extensive as each District deems appropriate. Districts may choose to develop separate secondary considerations for each priority hydrologic unit. Districts may select a combination of these or other factors that will be followed to determine program participants and prioritize funding:

1. Fields with a high leaching index or other major impacts upon groundwater (such as sinkholes).
2. Land with an existing Conservation Plan, which includes the requested VACS practice.
3. Applications with the lowest Conservation Efficiency Factor (CEF) when compared to other applications for the same practice.
4. Applications with highest percentage of a total Conservation Plan to be implemented in a given year.

5. Applications with the largest number of acres of Conservation Plan to be implemented.
6. Applicants with a history of successful participation in conservation programs; successful participation means completing previously approved practices within the time frame identified by the District or maintaining previously installed practices within specifications throughout its lifespan, etc.
7. Applications that will exclude the highest density of livestock (defined as the number of 1,000 lb. animal units excluded per linear foot of stream bank protected).
8. Applications to implement practices that will reduce contaminated runoff into source water for public drinking water.
9. Applications that will protect identified Healthy Waters (based upon INSTAR data).

Additionally, Districts within the Chesapeake Bay basin shall give priority to BMPs addressed within the Virginia Chesapeake Bay Watershed Implementation Plan. Districts Outside of the-Chesapeake Bay basin shall give priority to BMPs in the highest priority agricultural nonpoint source hydrologic units (as ranked by DCR; high, medium, and low).

Conservation Efficiency Factor

A Conservation Efficiency Factor (CEF) is calculated by the AgBMP Tracking Module. Districts shall use this tool when ranking cost share practice requests; the lower the CEF value, the higher the conservation efficiency of the project.

The CEF uses eleven different components including soil loss data that is input by the District and environmental information associated with the location of the practice, to generate a factor that can be used to rank the proposed practice compared with other instances of the same BMPs as well as instances of other BMPs (See Section I.7 discussion on the Targeting of the Expenditure of Cost-share Funds). Although the CEF can be used to rank different BMPs, it will more accurately rank different BMPs that are oriented toward reduction of the same contaminant. For example, when comparing the same BMP implemented in different locations the CEF will provide a high degree of confidence in the practice ranking. When comparing two different cropland practices (like a SL-3 to an SL-4), both of which primarily reduce sediment runoff from crop fields, the CEF ranking scores should produce a ranking with a high degree of reliability. However, it should not be relied upon absolutely but rather should be analyzed to assure that the CEF makes sense given other environmental factors applicable to each specific site and BMP. If the CEF is used to rank two different BMPs that are focused on reducing different contaminants, such as a WP-4 as compared to an SL-1, the factor may provide some guidance as to the anticipated environmental benefits associated with the different geographical locations. However, the level of reliability associated with comparing highly divergent BMPs is acknowledged to be less than perfect.

Beginning in FY2018, the calculation of an installation's cost efficiency includes animal unit counts rather than a count of systems implemented. For FY2021, CEF uses the 2018 impaired waters derived impairment areas and agricultural loadings from the 2020 NPS Assessment.

When BMP measures request an estimate of erosion reduction anticipated as a result of implementing the practice, the data provided is used to measure program accomplishments. It is in everyone's best interest to provide as accurate and complete an estimate as possible so that the most accurate reflection of program accomplishments can be reported.

Evaluation Worksheets

It is recommended that Districts develop evaluation worksheets. These worksheets should be designed to convert the anticipated environmental benefits of implementing a BMP into standardized scores so that competing cost-share applications can be ranked. Several approaches are possible for Districts to evaluate and rank recruited cost-share applications. An example is included on the following pages. The example provides detailed information regarding the benefits of the proposed project and assigns points associated with those benefits. After the basic location information, the worksheet addresses the priority considerations required to qualify for the program. These items should always be addressed first to determine if a request should receive additional consideration towards approval to receive cost-share funds.

If any of the four statewide priority conditions are met, the practice should then be evaluated according to the District's secondary or local water quality priorities. In this example, a weighted system is used to permit an objective comparison of competing projects. Each area of concern identified by the District is scored according to its rating for significance on the site and its rating for significance to the District. The staff, based on best professional judgment and site specific evaluations, enters the first weighted factor. The District Board determines the second weighted factor. In this example, the public water supply concern has been given highest priority as an issue by giving it a weight of four. The other four areas are given lesser weights of three, two and one. These values are assigned by the District as deemed appropriate for their jurisdiction.

This format provides space to specify details supporting the rating given. This would be very helpful to a District with a significant number of requests to evaluate. Projects without a significant impact in those areas identified as important by the Board should not be approved.

Example

Cost-Share Evaluation Worksheet

Name _____ Farm Name _____

Address_ Farm Number_____OPID # _____

_____ Field(s) _____

Phone #_____Tract # _____

Primary Considerations

(1) Agricultural non-point source pollution ranking of the .....{ } NWBD unit where BMP will be implemented. (High = 5, Medium = 3, Low =0)

Or – Exception for serious animal waste, groundwater, or gully erosion concerns (Rank from 1 through 5 based upon the amount, and type of anticipated NPS pollution contributed) .....{ }

(2) Candidate is located within an identified NPS impaired waters drainage area shall be prioritized for funding of practices that reduce the identified impairment type.

Within an Impairment Type area……..... { } (2 points if yes, 0 if no)

And addressing the impairment cause of concern……... { } (2 points if yes, 0 if no)

(3) At least 1/3 HEL (5 if 1/3 HEL, 0 if not HEL).....{ }

(4) Priority NWBD hydrologic unit (yes =3, no = 0).....{ }

Number:

The District's priority hydrologic units in ranked order are:

(5)

Total points toward primary considerations .....**{ }**

.....

Secondary Considerations or District Priorities (Rate significance from 1-4)

(1) Practice will protect source water for a public water supply ..... { } x 4 =

Reasons for rate significance:

(2) Groundwater concerns ..... { } x 3 =

Specify:

These may include sinkholes, highly permeable soils, presence of wellheads or similar considerations.

(3) Animal Waste concerns ..... { } x 3 =

Reasons for rate significance:

Number of (1,000 lb.) animal unit's waste that will be managed_____

Number of Tons of animal waste to be stored and properly utilized_____

(4) Erosion concerns..... { } x 2 =

Greater erosion rates based upon RUSLE 2 calculations will receive a higher rate significance. >2T = 1 points, ≤ 2T = 2points, T = 3 points

(5) Acres to be implemented in plan ..... { } x 1 =

Actual = _____

(6) A Conservation Plan for the entire tract or farm exists, (5 points if the plan already exists, 3 if it is to be developed, 0 if no Conservation Plan is anticipated.

Existing (Date written:_____) .....{ }

To be developed.....{ }

Total points toward primary considerations .....**{ }**

Total Score toward secondary considerations or District priorities = _____

Worksheet
Completed by:_____ Date:_____

Virginia's Healthy Waters Initiative

Traditionally, water quality based programs have emphasized practice implementation to support restoration of streams and improvement of degraded surface waters. This is very important but there are viable opportunities for best management practices to protect streams that are already considered healthy. Recognizing that it is generally less expensive to conserve and protect healthy ecosystems than to restore them after they have been damaged, agricultural BMPs can serve a key role in the protection of healthy waters and healthy watersheds. The integrity (health) of aquatic ecosystems (streams) is tightly linked to the watersheds of which they are a part. There is a direct relationship between land cover, key watershed processes, and the health of streams.

Virginia has identified numerous ecologically healthy streams, creeks and rivers throughout the state, and there are more yet to be identified. Healthy streams are identified by factors that include: high numbers of native species and a broad diversity of species; few or no non-native species; few generalist species that are tolerant of degraded water quality; high numbers of native predators; migratory species whose presence indicates that river or stream systems are not blocked by dams or other impediments; and low incidence of disease or parasites. Healthy streams in Virginia have been identified and ranked through a stream ecological integrity assessment known as the **In**teractive **St**ream **A**ssessment **R**esource (INSTAR) http://instar.vcu.edu/ as "exceptionally healthy," "healthy," or "restoration candidate." INSTAR was originally designed to assist individuals with planning and land use decisions by identifying healthy streams in their communities and encouraging their protection. Districts may choose to prioritize BMP applications from areas with identified healthy waters by specifying healthy waters as a secondary consideration.

Some actions that typically support healthy waters protection:

- **Create, maintain, or expand riparian buffers**: Vegetative corridors, extending at least 35' in width upland from the top of the stream bank, buffer streams from activities in the watershed by intercepting runoff that would otherwise transport sediment and other pollutants to the stream. This is one of the most effective measures for protecting streams.
- **Protecting headwater streams:** Often intermittent, and therefore not recognized as a "blue line stream" and underserved by regulation, these streams are extremely important to the natural function of downstream waters. Fencing livestock out of these areas can prevent downstream degradation of high quality perennial streams.
- **Maintain natural stream flow**: The natural, seasonal pattern of stream flow, the stream's response to storm events, and maintaining minimum flow levels may be as critical to a stream's health as water quality.
- **Protect natural stream channels:** Denying livestock unlimited access to stream channels reduces direct introduction of some pollution (bacteria) as well as limits the disturbance to habitat and the creation of erosion problems.

Agricultural BMPs that support the protection of healthy waters work in the same fashion as those that are implemented to restore impaired streams. Actions like creating **filter strips or riparian buffers, restoring wetlands, protecting stream banks through fencing, developing alternate water sources for livestock, stabilizing stream banks and channels, and capturing and controlling sediment and erosion** all provide important protective measures in watersheds that have identified healthy streams but also see the impact that Virginia's working lands experience daily.

Cost-Share Funding Restrictions

- Programmatic caps shall be administered in accordance with the *Virginia Soil and Water Conservation Board Policy and Procedures on Soil and Water Conservation District Cost-Share and Technical Assistance Allocations*.

The AgBMP Tracking Module provides the District the ability to monitor participant cost-share approval and payment status during the Program Year, both within and across District boundaries. Districts are advised to make use of the "Participants Contracts" function to ensure participants are not overpaid based on statewide caps. District staff should monitor the amount of cost-share funds that have been approved within their own District and cumulatively among all Districts for a given participant.

Local VACS Program Implementation

All practices listed in the Manual are available to participants in any District in the Commonwealth of Virginia. Districts must offer all practices to all interested applicants in their area. Districts cannot make modifications or changes to standards and specifications without prior approval from DCR.

Cost-share funds are intended to provide an incentive for the implementation of BMPs or their continuation in future years. Practices considered for funding must be projects that meet and adhere to the standards and specifications as described in this Manual. If there is any question as to the applicability of a particular BMP, the conservation technical staff should review the specification to ensure the particular BMP is appropriate to improve the specific natural resource concern identified on the agricultural operation. BMPs initiated prior to submitting a cost share or tax credit application are not eligible. Authorization to receive cost-share and/or tax credit can only be granted upon approval of an application by the Board of Directors.

Practices will be certified by the participant and an appropriately-qualified individual as meeting VACS practice specifications before issuance of the cost-share payment. If an NRCS practice standard referenced in the VACS specification is in conflict with the Virginia BMP practice specification language, the VACS practice specification language must be followed.

Guidance on Volunteer Hours and the Cost-Share Program

This guidance provides clarification for allowing volunteer hours that have value in the calculations to determine Agricultural BMP cost-share practice reimbursement amounts. The cost-share program does not restrict the source of the labor that a participant may value and submit as a cost associated with the implementation of authorized BMPs. It is important that the number of hours and value of those hours is appropriate to accomplish the BMP installation. The

relationship between the labor suppliers (which may include family, a licensed contractor, non-governmental organization (NGO), or a farm employee) is between the participant and the labor supplier. As with all reimbursable BMPs, the practice participant must provide documentation to support the labor component of the installed practice – meaning the quantity of labor hours and monetary value of the labor performed must be provided. Districts must ensure that the labor charges submitted are in line with the Total Eligible Estimated Cost that was the original basis for the amount of cost-share approved for BMP installation. Further, Districts must have comfort with the fairness of the labor cost submitted for calculation of the cost-share reimbursement payment. The most pertinent questions to answer when calculating the cost-share payment is whether the labor cost submitted is appropriate for the labor required to implement the practice based upon local labor rates and whether the quantity of hours submitted is reasonable for the amount of work accomplished.

District Directors, District employees, and their immediate families are responsible for ensuring that any contracts and agreements entered into are not in violation with the State and Local Government Conflict of Interests Act. The Office of the Attorney General may provide counsel if there are questions or concerns regarding compliance with the Act.

State Environmental Law Compliance

The following list denotes program eligibility for VACS Program cost-share assistance. For operations that fulfill all other VACS Program eligibility requirements:

- Problems identified with a founded Agricultural Stewardship Act (ASA) complaint – **Are eligible** as long as the producer elects to implement an agricultural stewardship plan to correct the problem.

- Problems identified with a founded ASA complaint – **Are Not Eligible** if the Commissioner of Agriculture has issued a corrective order as a result of not implementing an approved agricultural stewardship plan.

- Problems identified as possibly being in violation of a state environmental law or regulation - **Are eligible** if the producer is working with the Department of Environmental Quality (DEQ) to come into compliance with state requirements, or the producer has identified needed actions independently.

- Problems identified as being in violation of a state environmental law or regulation – **Are Not Eligible** if the producer has received an enforcement order from DEQ, unless cost-share assistance was requested to help correct the problem prior to commencement of the enforcement action.

- Except as otherwise expressly provided in this Manual, the VACS Program is not intended to provide financial assistance for any voluntary actions or any minimum actions required by local ordinance; mitigation bank; or any state or federal law, regulation, or permit. Should any funded practice be used for such purposes during its lifespan, all or part of the financial assistance (including cost-share and tax credit) from the VACS shall be refunded on a pro-rata basis. Such restriction shall not apply to the Resource Management Plan Program.

Compliance with Federal Agricultural Programs

When a District is notified by a USDA agency that an individual or farm operation is in violation of any Farm Bill conservation provision or certain federal farm programs, that individual or farm operation is prohibited from receiving VACS Program cost-share funds. In these cases, an application may be accepted, but the practice will not be approved until the District has approved a Conservation Plan and the individual has regained eligible status with USDA.

In the event a Virginia Agricultural BMP Cost-Share Program participant is determined by USDA to be out of compliance, the language below is appropriate to use when notifying that individual of his state cost-share status.

The_____Soil and Water Conservation District Board has been notified by USDA staff that your farm operation is determined to be out of compliance with (insert the program or provision) and as a result you now are ineligible to receive funds from the Virginia Agricultural BMP Cost- Share Program. The District Board is unable to (approve your request for cost-share program funds), or (honor its earlier approval of cost-share funding for your request) for the [name of practice(s) and practice code(s)] under the Cost-Share Program.

Contingent upon available funding, your request(s) for cost-share assistance will be reconsidered by the District Board once you have regained eligible status with USDA.

You may wish to consider the Virginia Agricultural BMP Tax Credit Program. This program is open to all individuals regardless of eligible status with USDA.

Sincerely,
District
Chairman

Nutrient Management Requirements

Nutrient management plans are required as a prerequisite for animal waste practices and certain other identified agronomic practices. The individual BMP specifications contain additional information on specific plan requirements. The nutrient management plan 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.

Conservation Plan Requirements

The VACS Program supports and encourages the development and implementation of DCR Conservation Plans, USDA Conservation Plans, and Resource Management Plans on agricultural land in Virginia to provide erosion control or address water quality issues. BMPs included in an RMP receive priority consideration for VACS funding; there are several suggested secondary considerations that incentivize the implementation of BMPs in a Conservation Plan.

BMPs may require the development of a Conservation Plan. A DCR Conservation Plan, a USDA Conservation Plan, or a Resource Management Plan will meet this requirement as long as the BMP for which funding is being requested is included in the plan. Prior to any cost-share payment being made to the participant, a required plan must be approved by the District Board.

Language in the Code of Virginia (§ 58.1-339.3 and § 58.1-439.5) differs from VACS Program requirements; the Code requires a participant to have a soil Conservation Plan approved by the local Soil and Water Conservation District in order to be eligible to receive an Agricultural BMP Tax Credit, regardless of the implemented practice. Additionally, when the participant seeks funding for a practice from federal programs, a USDA plan is required. Forestry practices also require a plan that meets the minimum criteria established by Department of Forestry.

Recognizing the level of BMP implementation that will be required to reduce agricultural nonpoint source pollution throughout the state, the VACS Program exempts certain agronomic BMPs from the requirement to have an approved Conservation Plan prior to receiving VACS funding approval. Removal of the conservation planning requirement from these practices is an effort to reduce the amount of administrative time and effort required by Districts toward implementing these practices. Specifically these practices are: Nutrient Management practices (NM-1A, NM-3C, NM-4, NM-5N, NM-5P and NM-7), Cover Crop practices, (SL-8, SL-8A, SL-8B, SL-8H, and WQ-4), High Residue Tillage System practices (SL-15A and SL-15B), Conversion of Cropland to Long Term Vegetative Cover (SL-1) and all Continuous Conservation Initiative practices.

Location of Practice Instance Point – Distance to Stream and Relief to Stream

Districts are required to digitize a point for all state cost-share practices. Having a point represent the location of a practice instance allows DCR to associate that instance with whatever geographic unit DCR or another organization may require for their program purposes.

A practice instance point should be near the centroid and/or highest point of where the practice is applied and contained within fields associated with the BMP. Separate BMP instances may also be grouped together and represented by a single point as long as the fields containing the BMP instances are contiguous. A measurement is then taken between the practice instance point and the top of the bank of the nearest stream or man-made drainage channel. The distance should be measured along the path of flow between the practice instance point and the top of bank in feet. Sinkholes, being a geological barrier to flow and potential source of groundwater contamination, can be substituted as a delivery point rather than a blue line stream. The AgBMP Tracking Module will display information indicating whether the path to the stream represents an increase or decrease in elevation. If needed, the practice instant point may be adjusted to accurately represent the centroid or highest point of the fields.

State Resource Reviews

Overview

For Program Year 2019, the AgBMP Tracking Module was modified to assist the Districts in screening Commonwealth resources (threatened and endangered species, cultural resources, floodplains, etc.) for potential impacts by BMP projects. These screening tools consist of specific

spatial queries to indicate when further review may be necessary for archeological sites and preservation easements, Virginia fish and wildlife information, rare species, natural communities, predicted suitable species habitat, and TMDL implementation areas. Additionally, the module displays FEMA floodplain data. For all identified resources of concern, Districts are expected to address any issues brought forward during the BMP planning process. This Resource Review process shall be completed **prior** to the Board's approval of a contract.

Requirements for Practices/Components to be Digitized in the AgBMP Tracking Module to Facilitate Resource Reviews

To facilitate the screening of BMP instances for potential impacts to resource concerns, DCR worked with state partner agencies to identify BMP components may cause an impact to a resource. The agencies have reached agreements on how the AgBMP Tracking Module should conduct screenings. Based on those agreements, and to ensure proper screening of resources, Districts must **digitize all of the components that make up the practices identified in the table below** in the AgBMP Tracking Module using the BMP Mapping tool. This requirement is in addition to locating the BMP instance with a point and, where required, digitizing the path to stream.

Practices Requiring Digitizing of Components

Code	Practice Name
CCI-HRB-1	Herbaceous Riparian Buffer – Maintenance Practice
CCI-FRB-1	Forested Riparian Buffer - Maintenance Practice
CCI-SE-1	Stream Exclusion - Maintenance Practice
CCI-SL-6N	Stream Exclusion with Narrow Width Buffer – Maintenance Practice
CCI-SL-6W	Stream Exclusion with Wide Width Buffer – Maintenance Practice
CCI-WP-2N	Stream Protection with Narrow Width Buffer – Maintenance Practice
CCI-WP-2W	Stream Protection with Wide Width Buffer – Maintenance Practice
CRFR-3	CREP Riparian Forest Buffer Planting
CRSL-6	CREP Grazing Land Protection
CRWP-2	CREP Streambank Protection
CRWQ-1	CREP Grass Filter Strips
CRWQ-11	CREP Agricultural Sinkhole Protection
CRWQ-6B	CREP Wetland Restoration
FR-1	Afforestation of Crop, Hay and Pasture Land
FR-3	Woodland Buffer Filter Area
LE-1T*	Livestock Exclusion with Riparian Buffers for TMDL Imp.
LE-2T*	Livestock Exclusion with Reduced Setback for TMDL Imp.
RB-4P	Septic Tank System Installation/Replacement with Pump
RB-5	Installation of Alternative Waste Treatment System
SL-10T*	Pasture Management
SL-11B	Farm Road, Animal Travel Lane, Heavy Use Area Stabilization
SL-4	Terrace Systems
SL-5	Diversions
SL-6N	Stream Exclusion with Narrow Width Buffer
SL-6W	Stream Exclusion with Wide Width Buffer

SL-6A	Small Acreage Grazing System
SL-6AT*	Small Acreage Grazing System (TMDL)
SL-6B	Alternative Water System
SL-7	Extension of Watering Systems
WP-1	Sediment Retention, Erosion or Water Control Structures
WP-2A	Streambank Stabilization
WP-2N	Streambank Protection (fencing with narrow width buffer)
WP-2W	Streambank Protection (fencing with wide width buffer)
WP-2B	Stream Crossing & Hardened Access
WP-2C	Stream Channel Stabilization
WP-2D	Maintenance of Stream Exclusion Fencing
WP-2T*	Stream Protection - TMDL
WP-3	Sod Waterway
WP-4	Animal Waste Control Facilities
WP-4B	Dairy Loafing Lot Management System
WP-4C	Composter Facilities
WP-4E	Animal Waste Structure Pumping Equipment
WP-4F	Animal Mortality Incinerator
WP-4FP	Feeding Pad
WP-4LC	Animal Waste Control Facility for Confined Livestock Operations
WP-4LL	Loafing Lot Management System with Manure Management
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage
WP-5	Stormwater Retention Pond
WP-6	Agricultural Chemical & Fertilizer Handling Facility
WP-7	Surface Water Runoff Impoundment for Water Quality
WP-8	Relocation of Confined Feeding Operations
WQ-1	Grass Filter Strips
WQ-11	Agricultural Sinkhole Protection
WQ-5	Water Table Control Structures
WQ-6	Constructed Wetlands
WQ-6B	Wetland Restoration
WQ-7	Irrigation Water Recycling System
WQ-8	Fuel Storage Treatment
WQ-9	Capping/Plugging of Abandoned Wells

**TDML Practice*

Specific Resources to be Screened via the AgBMP Tracking Module

The screening and review procedures for each resource are summarized below. More detailed review procedures are provided through the AgBMP Tracking Module. Training will also be made available to District employees on both the new functionality in the AgBMP Tracking Module and on the partner agency systems used to facilitate these reviews.

Department of Conservation and Recreation Floodplain Management Program

DCR Floodplain Management Program staff are currently working to develop guidance for the review of agricultural BMPs in floodplains. Once this guidance is completed, spatial queries will be implemented in the AgBMP Tracking Module similar to the reviews for other resource

concerns. Until that time, the FEMA Flood Hazard data has been added to the BMP Map so District employees can visualize any potential concerns with BMP projects near or intersecting floodplains. Questions about the Floodplain Management Program should be directed to DCR Floodplain Management Program staff or the locality in which the BMP instance is located. Contacts for the specific localities can be found on the Floodplain Management Contacts webpage (http://www.dcr.virginia.gov/dam-safety-and-floodplains/floodplain-directory).

Department of Historic Resources Archeological Sites and Preservation Easements

The AgBMP Tracking Module screens for concerns involving both archeological sites and preservation easements. Screening is based on the locations of digitized BMP components and the calculated total cumulative ground disturbance. BMPs with disturbed areas greater than one-half acre will be flagged for reviews. If a BMP component of concern is within 100' of either an archeological site or a preservation easement, the intersected resource will be flagged for further review. The AgBMP Tracking Module will return a table of flagged resources, both on the Resource Concerns tab and in various reports.

Districts users will research these flagged resources through the Department of Historic Resources (DHR) Virginia Cultural Resource Information System (VCRIS) and submit a request for review through the Electronic Project Information Exchange (ePIX). Access to VCRIS will be provided through one or more shared accounts. District users will establish ePIX accounts to facilitate any BMP projects that require DHR review. Those registered in the ePIX system are also able to view the project review application and review status of projects. All comments by DHR will be issued electronically and provided via email to project contacts.

DHR has also requested to review any project that has cumulative ground disturbance greater than one-half acre. The AgBMP Tracking Module will automatically buffer digitized BMP components to calculate the area of ground disturbance and will flag BMPs that exceed the half-acre threshold. BMPs that exceed the half-acre threshold will have the area displayed on the Resource Concerns tab and in various reports. These flagged BMPs should also be submitted to DHR for review through the ePIX system.

Department of Game and Inland Fisheries Virginia Fish and Wildlife Information Service (VAFWIS)

The AgBMP Tracking Module screens for Department of Game and Inland Fisheries (DGIF) Virginia Fish and Wildlife Information Service (VAFWIS) species and resources based on the locations of digitized BMP components. If a BMP component of concern is within two miles of a VAFWIS species or resource, the intersected species or resource will be flagged for further review. Results and guidance are grouped into three tables, one including listed special status species, one with designated wildlife resources, and the other table listing common wildlife species and resources. Information from these tables will also be available in various reports. Hyperlinks to the DGIF Virginia Fish and Wildlife Information Service for each species and resources will be provided in the table where available. Listed species, tier species, freshwater mussels and listed reptiles not in the "semi-aquatic" category "hits" will require additional project review by appropriate DGIF staff for the species taxonomic group. Results of this review will be documented for the BMP in the AgBMP Tracking Module as an attachment.

Department of Conservation and Recreation, Division of Natural Heritage, Rare Species and Natural Communities

The AgBMP Tracking Module will screen for DCR Division of Natural Heritage (DNH) rare, threatened and endangered species and Natural Heritage predicted suitable habitat based on the locations of digitized BMP components. If a BMP component of concern is within the determined buffer, the intersected resource will be flagged for further review. The AgBMP Tracking Module will return a table of flagged resources, both on the Resource Concerns tab and in various reports.

Districts users will submit a request for review of flagged resources through the Virginia Natural Heritage Data Explorer. District users may establish Data Explorer accounts to facilitate any BMP projects that require DNH review. This review by DNH will also provide the District user feedback regarding whether further review may be needed by DGIF and/or the U.S. Fish and Wildlife Service.

Department of Environmental Quality TMDL Implementation Areas

The AgBMP Tracking Module will identify the active Department of Environmental Quality (DEQ) TMDL implementation area (i.e. approved or completed) reports in which a BMP instance falls based on the point location. The system will return a list of the intersected report areas with a link to the TMDL Implementation Plan(s) on DEQ's website. Districts users should review the TMDL Implementation Plan Report(s) to ensure that the BMP instance addresses water quality concerns to the extent possible.

Resource Concerns Tab in the AgBMP Tracking Module

The Resource Concerns tab in the AgBMP Tracking Module for a BMP instance will display the results of the resource screenings as described above with the date of last update. Individual summary tables are displayed for each resource concern with a link to documentation on the steps to be taken if or when a resource of concern is identified. The BMP component(s) that resulted in the resource to be flagged as a concern are also displayed.

An 'Update' button available on this tab allows District users to run the Resource Review queries again at any time so that results can be updated as the BMP is moved from the planning stages to implementation. This update will occur automatically when a planned BMP instance is moved from a Conservation Plan or Resource Management Plan in proposed status to a cost-share or tax credit contract. All resources must be addressed before the contract is approved by the SWCD and changed to Approved status in the AgBMP Tracking Module.

Two reports are also available from this tab. The Resource Concerns Report will include a summary of all information on the tab. This information will also appended into the Conservation Planning and Resource Management Planning reports that contain BMP data. The Resource Concerns Change Report will include any changes (additions or deletions of resource concerns) since the last time the data was updated. This report will be helpful identifying new issues that will need to be addressed as a BMP moves from the planning stage to implementation.

Any BMP modifications as a result of the review should be discussed with the participant and any design adjustments made prior to SWCD Board approval of the contract.

Conservation Planning Module

DCR has developed a conservation planning module within the DCR Conservation Application Systems Suite. District conservation planning staff will be provided training related to the planning module.

DCR Agricultural BMP Engineering Services Program

This program provides engineering assistance to the 47 Soil and Water Conservation Districts across the Commonwealth. Engineering assistance includes: engineering support with designs, training of District staff, and the implementation of various quality control mechanisms. The most notable of these quality control mechanisms is the implementation of DCR's Engineering Job Approval Authority (EJAA) for District staff. See the glossary in this Manual for a definition of EJAA. The process and criteria for issuance of EJAA is detailed in the *Virginia Soil and Water Board Guidance Document on Engineering Job Approval Authority Procedures*, which can be found at http://www.dcr.virginia.gov/soil-and-water/des-ejaa.

DCR has Professional Engineers who have the ability to issue EJAA to District staff who have demonstrated competency in the design and construction of various agricultural best management practices per USDA-NRCS standards and specifications. **If a District staff person does not have DCR EJAA for any of the practice components being designed/installed as part of the VACS practice, they are not authorized by DCR to proceed to construction of those practice components. They should contact the DCR Agricultural BMP Engineer/Technician servicing their District for further instructions on what requirements will be needed to complete the practice.**

All practices designed by a private engineer shall be submitted to Agricultural BMP Engineering Services Program for a functional review. The practice shall not proceed to construction until the design has been formally approved by the Agricultural BMP Engineering Services Program. Additionally, As-Built drawings shall be submitted to Agricultural BMP Engineering Services Program, which may conduct a final onsite checkout of the project to ensure the constructed project matches the As-Built drawings. Payment shall not be issued to a participant until the Agricultural BMP Engineering Services Program has completed a final construction review of the completed project and the As-Built Drawings.

Various levels of EJAA will be delegated to an individual District employee for each practice component based on increasing levels of complexity. For example, EJAA may be issued to a given District staff person for a Livestock Pipeline based on a design that utilizes a maximum pipe diameter size of 1.5". The District staff person cannot design a system with a pipeline that exceeds 1.5" diameter.

An individual EJAA sheet will be issued for each District staff person who holds DCR EJAA. This sheet fully defines the various levels for EJAA as well as their limits. Please see the DCR EJAA chart below to determine which practice components require DCR EJAA and which components require design by a Professional Engineer. If a VACS practice is not listed in this

chart, the practice does not contain components that require EJAA or a Professional Engineer and the practice can proceed to completion without the EJAA requirement.

All DCR EJAA and completed designs will be subject to annual reviews and engineering spot checks.

For any practice that is funded with at least 50% federal funds, NRCS may have the lead for all engineering services, although the Agricultural BMP Engineering Services Program will continue to assist with the providing engineering services if requested by either the District or NRCS.

VACS Practice Components Requiring EJAA or PE Review and Approval

VACS Practice Code	VACS Practice Name	NRCS Practice Code	NRCS Practice Name	Professional Engineer (PE) or Engineering Job Approval Authority (EJAA) Required as indicated below
FR-4	Woodland Erosion Stabilization	362	Diversion	EJAA
SE-2	Shoreline Stabilization	580	Streambank and Shoreline Protection	PE
SL-4	Terrace Systems	600	Terrace	EJAA
SL-5	Diversion	362	Diversion	EJAA
SL-6N and SL-6W	Stream Exclusion with Grazing Land Management Protection (with either narrow or wide width buffers)	516	Livestock Pipeline	EJAA
		533	Pumping Plant	EJAA
		561	Heavy Use Area Protection	EJAA
		574	Spring Development	EJAA
		575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		614	Watering Facility	EJAA
		642	Water Well	EJAA
SL-7	Extension of Watering System	516	Livestock Pipeline	EJAA
		533	Pumping Plant	EJAA
		561	Heavy Use Area Protection	EJAA
		575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		614	Watering Facility	EJAA
WP-1	Sediment Retention, Erosion or Water Control Structure	350	Sediment Basin	PE
		362	Diversion	EJAA
		410	Grade Stabilization Structure	PE
		468	Lined Waterway or Outlet	EJAA
		638	Water and Sediment Control Basin	PE
WP-2N and WP-2W	Stream Protection (with either narrow or wide width buffers)	575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
WP-2A	Streambank Stabilization	575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		580	Streambank and Shoreline Protection	PE
WP-3	Sod Waterways	412	Grassed Waterway	EJAA

		606	Subsurface Drain	EJAA
		620	Underground Outlet	EJAA
WP-4	Animal Waste Control Facilities	313	Waste Storage Facility	PE
		359	Waste Treatment Lagoon	PE
		362	Diversion	EJAA
		367	Roofs and Covers	PE
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		620	Underground Outlet	EJAA
		633	Waste Recycling	PE
		634	Waste Transfer	PE
WP-4B	Dairy Loafing Lot Management System	313	Waste Storage Facility	PE
		356	Dike	EJAA
		362	Diversion	EJAA
		367	Roofs and Covers	PE
		412	Grassed Waterway	EJAA
		516	Livestock Pipeline	EJAA
		533	Pumping Plant	EJAA
		575	Trails and Walkways	EJAA
		580	Streambank and Shoreline Protection	PE
		614	Watering Facility	EJAA
		632	Solid Liquid Separation Facility	PE
		633	Waste Recycling	PE
		634	Waste Transfer	PE
		642	Water Well	EJAA
WP-4C	Composting Facilities	313	Waste Storage Facility	PE
		316	Animal Mortality Facility	PE
		317	Composting Facility	PE
		362	Diversion	EJAA
		367	Roofs and Covers	PE
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		620	Underground Outlet	EJAA
		633	Waste Recycling	PE
		634	Waste Transfer	PE

WP-4F	Animal Mortality Incinerator Facility	316	Animal Mortality Facility	PE
		317	Composting Facility	PE
		362	Diversion	EJAA
		367	Roofs and Covers	PE
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		620	Underground Outlet	EJAA
		633	Waste Recycling	PE
		634	Waste Transfer	PE
WP-4FP	Feeding Pad	362	Diversion	EJAA
		561	Heavy Use Area Protection	EJAA
WP-4LC	Animal Waste Control Facilities for Confined Livestock Operations	313	Waste Storage Facility	PE
		362	Diversion	EJAA
		367	Roofs and Covers	EJAA
		412	Grassed Waterway	EJAA
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		620	Underground Outlet	EJAA
		633	Waste Recycling	EJAA
		634	Waste Transfer	EJAA
WP-4LL	Loafing Lot Management System with Manure Management (Excluding Bovine Dairy)	313	Waste Storage Facility	PE
		362	Diversion	EJAA
		367	Roof and Covers	PE
		412	Grassed Waterway	EJAA
		516	Livestock Pipeline	EJAA
		533	Pumping Plant	EJAA
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		614	Watering Facility	EJAA
		620	Underground Outlet	EJAA
		633	Waste Recycling	PE
		634	Waste Transfer	PE

		642	Water Well	EJAA
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage	313	Waste Storage Facility	PE
		362	Diversion	EJAA
		367	Roofs and Covers	PE
		412	Grassed Waterway	EJAA
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		575	Trails and Walkways	EJAA
		620	Underground Outlet	EJAA
		633	Waste Recycling	PE
		634	Water Well	EJAA
WP-6	Agricultural Chemical & Fertilizer Handling Facility	309	Agrichemical Handling Facility	PE
WQ-1	Grass Filter Strips	466	Land Smoothing	EJAA
		572	Spoil Spreading	EJAA
WQ-5	Water Table Control Structure	587	Structure for Water Control	PE
WQ-11	Agricultural Sinkhole Protection	362	Diversion	EJAA
		500	Obstruction Removal	EJAA
WQ-12	Roof Runoff Management System	362	Diversion	EJAA
		412	Grassed Waterway	EJAA
		468	Lined Waterway or Outlet	EJAA
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		606	Subsurface Drain	EJAA
		620	Underground Outlet	EJAA

Land Conservation Easements and BMP Cost-Share Program Eligibility

Open Space and Conservation Easements that restrict certain land uses by a property owner are promoted as a method of long-term land protection. The Commonwealth of Virginia offers a state tax credit (the Land Preservation Tax Credit, or LPTC) to any landowner who donates an open-space or conservation easement for the benefit of conservation. The value of the tax credit is determined through a professional land appraisal process that establishes the land's values before and after the easement is recorded and determines the value of the donation. The difference in value becomes the basis for the amount of the tax credit. The Commonwealth and DCR wish to support the protection of agricultural lands by encouraging permanent conservation easements. Questions have arisen about the relationship between open space and conservation easements and the Virginia Agricultural Best Management Practices Cost-Share Program.

The Commonwealth funds the maximum amount of NPS reductions by assuring that each conservation effort provides maximum impact for the taxpayer's dollar. It may appear at first glance that the Commonwealth would be paying twice for the same conservation treatment if cost-share incentives or BMP tax credits apply to the same land that is eligible for tax credits as a result of a permanent conservation easement. In fact, the appraisal process for such easements analyzes only the development potential of the land; the valuation of the land does not take into account any BMPs that may be in place. Even though the LPTC and cost-share incentives may apply to the same property, they have entirely different purposes. The LPTCs are primarily an incentive to reduce subdivision and development of land, while cost-share payments or BMP tax credits are incentives to help landowners implement best management practices that reduce NPS pollution from agricultural operations. When a donated conservation easement requires livestock exclusionary fencing, the landowner may apply to receive cost-share when the fence is built later. The existence of easement language that requires livestock exclusion from riparian buffers does not render the landowner or land ineligible to receive cost-share or tax credits for the implementation of BMPs.

If the landowner applies and receives cost-share from the District and/or a BMP tax credit for his out-of-pocket expenses related to installing riparian exclusion fence and an alternative watering system prior to the recording of the conservation easement, the landowner must honor the ten-year commitment to maintain the practice. After the ten-year lifespan of the practice, there is no further obligation to the cost-share and/or BMP tax credit programs, and the landowner may manage the land in keeping with the recorded easement. During the lifespan of the practice, the more stringent requirements apply.

If after the installation of the exclusionary fence, the landowner elects to record an easement with a private conservancy or a conservation agency that restricts livestock from the riparian areas, then the maintenance of the exclusionary fence or removal of the livestock from the property may be extended depending on the requirements set out in the easement.

Cost-Share Rates

Each VACS practice specification contains a payment rate for that particular practice. The payment rate may be a percent-based rate or a flat, per acre payment rate, or both. Percentage

based cost-share payments should be calculated to reimburse the participant for the percentage of reimbursement of the approved eligible cost. Cost-share payments shall be made based upon the lesser of actual or estimated eligible cost, unless otherwise explicitly allowed within this Manual (see BMP specification rates sections).

Certain practices may be funded solely with state funds or in combination with other cost-share assistance programs (i.e. piggy-back funding). Other assistance programs include but are not limited to DEQ-administered Section 319 NPS Management Implementation Grant Program, the Environmental Quality Incentive Program (EQIP), the Emergency Watershed Protection (EWP) program, and other USDA programs. The Department of Forestry Conservation Programs, like Reforestation of Timberland, may only be used for combined funding with the forestry practices FR-1, FR-3, and FR-4.

Districts, federal agencies, or other conservation organizations may choose to combine resources to fund mutually high priority practices up to a maximum state and federal cost-share rate as listed in the VACS BMP specifications. Other sources of funding, including funding from local and private sources, may provide additional reimbursement opportunities. Experience has shown that a contribution towards implementing the practice by the participant encourages the long-term maintenance of the practice. Districts are encouraged to meet with local conservation workgroups to discuss funding options, priorities, and program administration. In addition, Districts may use locally-approved current commercial rates (e.g. seed, lime, fertilizer, machinery, and labor), District approved unit cost, or statewide average cost to establish estimates for eligible practice components.

Participant Notification

Prior to funding approval, the District must calculate a maximum cost-share payment amount based on the estimated practice cost. After approval, Districts **must** notify each applicant of the maximum dollar amount approved as well as the cost-share rate for the practice. The following sample language can be used: "*Your application to install a (Practice Name and Number) under the Virginia Agricultural BMP Cost-Share Program has been approved for* _____ *percent of the total eligible cost, not to exceed* _____ *dollars.*"

Landowners need to be informed that the authorized amount of cost-share assistance is the maximum they can receive and that disbursal of funds is not expected before a specified date. Participant notification of approved funding must also include a copy of the DCR practice specifications to ensure the participant is aware of all aspects of the commitment.

Payments that exceed the estimated total cost due to additional incurred expenses that arise after the original District authorization are allowed for constructed practices under the following conditions:

1. Site conditions unforeseen during the design of the practice warrant design or construction changes that create an additional expense; if the condition had been known at the time of the original design, it would have been addressed in the original design and cost estimate.

2. Additional material expenses must be directly related to the unforeseen site condition altering material quantity or structural specification.

District Board action may approve additional cost-share funds up to the specified practice cost-share rate as allowed within this Manual for additional eligible component expenses related to the unforeseen condition. The sum of additional cost-share and the cost-share amount originally approved cannot exceed the specified cost-share rate for the practice as provided in this Manual.

When funds are available, District Board action may approve such requests for additional cost-share on an individual basis throughout the Program Year and only for those practices installed during the same Program Year. Authorization of additional cost-share must be recorded in the District meeting minutes. Appropriate changes should be made and noted on the request application and the AgBMP Tracking Module.

Procedures to Request a Variance to Exceed Cost-share Cap

Districts may request a Variance to exceed the current participant cap per applicant per Program Year for the following eligible practices or combinations of practices:

- SL-6W
- WP-4
- WP-4B
- WP-4LC
- WP-4LL
- WP-4SF
- WP-4/WP-4C combination projects
- SL-6N/SL-6W combination projects
- SL-6N/WP-4FP combination projects
- SL-6N/WP-4SF combination projects
- SL-6W/WP-4FP combination projects
- SL-6W/WP-4SF combination projects

In preparing for a Variance request, the District staff must first compile the following documentation that will first be presented to their Board:

1. Narrative outlining the Resource Concerns (AWMS Plan-System Description and Resource Concerns)
2. Contract Number
3. Tract #
4. BMP Specification
5. Conservation Plan
6. Animal Type(s)
7. Animal #
8. Quantity Waste Treated
9. Sizing Calculations
10. Size of Storage Facility
11. If Feeding Facility: What is Being Fed, How it is Being Fed, Percent Confinement Used for Sizing
12. Needs Determination Worksheet or Risk Assessment Form
13. Copy of Topo with proposed location of facility
14. Plan Map with proposed location of facility and all associated components
15. Detailed Total Estimated Project Cost of the Practice
16. Estimated Cost-Share and Tax Credit (Documentation to demonstrate ability to fund project)
17. Other Sources of Funding (Partner Agencies)

Additional documentation (such as pictures) to support the request is encouraged.

Once the necessary documentation has been compiled by the District staff, the District Board must recommend or deny the request for a Variance by formal action recorded in the minutes. However, the Board shall not approve the practice for funding at this time.

If the request is recommended by the Board, all documentation including the Board's recommendation shall be submitted to the Agricultural Incentives Program Manager as a single PDF document. The Agricultural Incentives Program Manager will then convene the DCR Variance Committee to consider the request. The DCR Variance Committee will consist of the Agricultural Incentives Program Manager, a Conservation District Coordinator, and a DCR Agricultural BMP Engineer.

In reviewing the request, the DCR Variance Committee will:

1. Ensure the proposed practice is eligible for funding and meets all applicable standards and specification requirements;
2. Review the information submitted to ensure accuracy of all calculations, plans, and other documentation as required above; and
3. Ensure the proposed practice is the lowest cost, technically-feasible solution to the water quality issues.

The DCR Variance Committee may request additional information if needed, but will review the Variance request and respond to the District Board (copying District staff) within 45 business days of receipt of the request. DCR Data Services will also be notified in order to allow the Variance in the AgBMP Tracking Module. The District Board shall only approve such practice after the Variance has been approved by the DCR Variance Committee.

If additional eligible component expenses are requested by the participant due to unforeseen site conditions (as referenced on Page II-29-II-30), the District Board must submit an additional request to the Agricultural Incentives Program Manager for approval before such additional funds may be approved.

<u>Payment</u>

Any BMP application must meet appropriate technical standards and specifications for that practice before cost-share payment is made. Payment is issued after the participant and a qualified technical representative have certified the practice installation on Part III of the Virginia BMP Incentives Contract. USDA technical staff may not sign the Technical Practice Certification as written in the Part III of the VACs contractual documents when they have not been involved in assuring that all federally required documentation has been accomplished.

The amount of the cost-share payment is calculated based upon the estimated cost or total actual cost, whichever is less. Estimated cost should include engineering cost for structural practices or other professional services required to properly design and implement the BMP. Engineering cost may include survey, design, and/or post construction certification and as built drawings.

Costs related to conducting state resource evaluations reviews such as a survey for cultural resources, threatened, endangered, or rare species, or an analysis for floodplain review should also be included in the estimated costs. The estimated costs should include any costs related to

obtaining necessary permits, including permits related to the Chesapeake Bay Preservation Act, erosion and sediment control, and stormwater management. This includes third-party engineering and design costs associated with the obtaining of an approved permit from the locality as well as the costs associated with the implementation of the permitted plan. Any engineering, design and implementation costs that are unrelated to the actual installation of the VACS practice (i.e. for other projects on the applicant's property) shall not be included as a reimbursable expense, even if the other projects are included in the same approved permit.

When installed practices are receiving combined funding from a District and other sources, the District cost-share payment must reflect the balance due (not to exceed the amount approved by the District for the cost-share payment) after payment has been approved or issued by the other sources. Total combined state and federal conservation program cost-share payments must not exceed state cost-share rates specified in this Manual (see rates section of BMP specifications) or as otherwise explicitly allowed within this Manual.

Districts must provide an Internal Revenue Service Form 1099-G to any individual installing an agricultural practice who receives $600 or more in payment(s) from cost-share or other funding sources (such as settlement funds) per their federal taxpayer identification number or social security number during the calendar year. If the payment for an NM-1A, NM-5N, NM-5P, or RMP-1 practice is redirected at the participant's request to a certified nutrient management planner or Resource Management Plan developer, then the appropriate 1099-Misc should be issued to the entity receiving the cost-share funds (see NM-1A and RMP-1 specifications). Districts that issue payments for non-agricultural practices (such as DEQ 319 septic practices or Virginia Conservation Assistance Program practices) must provide a 1099-MISC to participants. Districts must also file the appropriate IRS Form 1099 and Form 1096 with the Internal Revenue Service in accordance with IRS regulations. Neither the local Soil and Water Conservation District nor DCR provides tax advice; the program participant may wish to consult with an independent tax advisor regarding any potential tax consequences.

Documentation

Districts will retain all billings and supporting data in their files according to the following unless otherwise notified by DCR:

- Districts must complete their data input in the AgBMP Tracking Module according to the program schedule published in the front of this Manual.
- DCR Contract Parts I, II and III completed accurately.
- A copy of the approval letter/memo that was sent to the participant.
- A copy of the Carryover approval letter/memo that was sent to the participant for each Carryover, if applicable.
- A copy of the tax credit certificate, if applicable.
- Conservation plans, Nutrient Management Plans, Grazing Management Plans, Agricultural Waste Management System Plans, and/or Dry Manure Storage Structure Agreement, as required by the BMP specification.
- Practice design sheets and as-built designs.
- Documentation of a Resource Review having been completed (Ex. a printout of the resource concerns page from the Tracking Module is sufficient; an NRCS CPA-52 does not meet this requirement).
- If resource concerns were identified, documentation of the concern being address. (Ex: an NRCS CPA 52, or other documents/communications from DCR-DNH, DGIF, or DHR).
- Conservation Planning notes (Con-6 Notes).
- Location map with road names or route numbers and/or driving directions.
- DCR Bid Solicitation Sheet, if applicable.
- Copies of all of the bills/invoices of eligible components submitted by the participant.
- A payment calculation spreadsheet. and
- Copies of the issued checks for payment to the participant

Minimum document retention for cost-share application forms will be three (3) years. Canceled applications may be discarded after the (3) year period if not needed for future reference by the District.

If the practice is installed, documentation should be retained for three (3) years beyond the lifespan of the practice.

For any practice cost-shared with VACS funds on a percentage basis, the District will require bills for all eligible practice components to determine total installation cost. Authorizing personnel will examine supporting data to determine eligible components and proper cost-share rates. The participant must sign Virginia BMP Incentives Program Contract Parts I and III; Part III includes the participant's certification that the practice is completed according to specifications.

Cost-Share Program Bid Process

The Cost-Share Program Bid Process is applicable to the list of VACS cost-share practices found below and must be used when the cost of any one component of a VACS contract is estimated to equal or exceed a billable expense of $30,000. For contracts where the estimated billable expense for each component is less than $30,000, the Bid Process is not required.

VACS practices with applicable components:

- FR-1 Afforestation of Crop, Hay and Pasture Land
- FR-3 Woodland Buffer Filter Area
- FR-4 Woodland Erosion Stabilization
- SE-1 Vegetative Stabilization of Marsh Fringe Areas
- SE-2 Shoreline Stabilization
- SL-1 Long Term Vegetative Cover on Cropland
- SL-3 Stripcropping Systems (only if obstruction removal/subsurface drainage is required)
- SL-4 Terrace Systems
- SL-5 Diversions
- SL-6N Stream Exclusion with Narrow Width Buffer and Grazing Land Management
- SL-6W Stream Exclusion with Wide Width Buffer and Grazing Land Management
- SL-7 Extension of Watering Systems
- SL-11 Permanent Vegetative Cover on Critical Areas
- WP-1 Sediment Retention, Erosion or Water Control Structures
- WP-2A Streambank Stabilization
- WP-2N Stream Protection (Fencing With Narrow Width Buffer)
- WP-2W Stream Protection (Fencing With Wide Width Buffer)
- WP-3 Sod Waterway
- WP-4 Animal Waste Control Facilities
- WP-4B Dairy Loafing Lot Management System
- WP-4C Composter Facilities
- WP-4F Animal Mortality Incinerator Facilities
- WP-4FP Feeding Pad
- WP-4LC Animal Waste Control Facilities for Confined Livestock Operations
- WP-4LL Loafing Lot Management System with Manure Management (Excluding Bovine Dairy)
- WP-4SF Seasonal Feeding Facility with Attached Manure Storage
- WP-6 Agricultural Chemical & Fertilizer Handling Facility
- WQ-1 Grass Filter Strips
- WQ-5 Water Table Control Structures
- WQ-11 Agricultural Sinkhole Protection
- WQ-12 Roof Runoff Management System

For purposes of the Bid Process, project components are equivalent to the corresponding NRCS Standards as outlined in each specification. For example, the SL-6W includes the following NRCS Standards, each of which will be considered as a component for the purposes of the Bid Process: 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.

The FR-1, FR-3 and SE-1 specifications do not reference explicit NRCS Standards; therefore, Districts shall use the NRCS 382 Fence and 612 Tree/Shrub Establishment standards as the FR-1 and FR-3 components that require bids if the eligible billable expense is estimated to equal or exceed $30,000. Districts shall use the NRCS 580 Streambank and Shoreline Protection standard as the SE-1 component that requires bids if the eligible billable expense is estimated to equal or exceed $30,000.

Documentation Requirements

The District must retain the completed Virginia Agricultural Cost-Share Bid Solicitation Sheet (Bid Solicitation Sheet) in the cost-share file to document: (i) whether the Bid Process was required; (ii) whether an applicant completed the work on his/her own; or (iii) the applicant did not complete the work on his/her own and bid solicitation was required for each component with an estimate of $30,000 or greater.

Step #1

When the local SWCD Board approves any cost-share contract where the cost of any one component is estimated to equal or exceed a billable expense of $30,000 or greater, the District will mark the project in the AgBMP Tracking Module with the status of "Conditionally Approved Pending Bids".

The District will use the appropriate Form Letter in the AgBMP Tracking Module to notify the applicant that their request is eligible for cost-share assistance and that funds have been conditionally approved pending the completion and return of the Bid Solicitation Sheet. In the Form Letter, the District should clearly state each component of the project (e.g. Fence, Well, etc.) that will require bids based on estimated costs. The District should also state that the applicant will have 120 days from the receipt of the Form Letter to obtain a minimum of three bids for each applicable component, complete the Bid Solicitation Sheet, and return it to the District. If the Bid Solicitation Sheet is not received within 120 days, the project will be cancelled.

Step #2

The applicant will complete the Bid Solicitation Sheet. For projects where the applicant is doing his/her own work, the applicant should simply check the second selection at the top of the Bid Solicitation Sheet, sign on the second page, and return to the District.

If the applicant will not be doing his/her own work, the participant is required to obtain a minimum of three bids for each necessary component. The applicant should fill out the Bid Solicitation Sheet completely. Part 1 includes applicant information such as the applicant's name, address and telephone number. Part 2 includes vendor information such as the name, tax identification number, telephone number and mailing address of each vendor as well as the date and time when each bid was obtained. Part 3 includes the actual vendor estimates, component by component, as well as estimated start and completion dates.

After all three portions of the Bid Solicitation Sheet are completed by the applicant, the applicant should also select which contractor they intend on hiring and, in the event that the applicant does not desire to award the project to the lowest bidder, the applicant will provide suitable justification in writing to the District explaining why the low bid will not be accepted. Additionally, when a minimum of three bids cannot be obtained from sources within a 50 mile radius of the BMP location, the applicant will provide documentation for this in the Comment section of the Bid Solicitation Sheet. Once the Bid Solicitation Sheet is complete, the applicant will return a signed copy to the District.

Step #3
After the District receives the required Bid Solicitation Sheet, the District must keep a copy in the cost-share file. No further District Board action is required. District staff must switch the status of the project from "Conditionally Approved Pending Bids" to "Approved" in the AgBMP Tracking Module and send the applicant a notice of final approval using the appropriate form letter found in the AgBMP Tracking Module.

Step #4
The applicant will notify the successful bidder that the project has been approved and therefore construction can begin. Should the bidder accept the job, the applicant will notify the District of the anticipated construction start date.

Any future requested increase in authorized cost-share funding must be approved by the District Board and recorded in the minutes of the meeting where the increase in funding is approved.

VIRGINIA AGRICULTURAL BMP COST-SHARE BID SOLICITATION SHEET

Virginia Department of Conservation and Recreation programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, or political affiliation. An equal opportunity/ affirmative action employer.

PART 1: APPLICANT INFORMATION

Applicant Name:_____**Soil and Water Conservation District:**_____

Applicant Address:_____

Applicant Email Address: _____**Applicant Telephone Number:**_____

Specifications Prepared by:_____**Quotes Secured By (if applicable)**:_____

□ Check here if the Bid Process is not required; stop here.

□ Check here if the applicant will complete the work on his/her own. Bid solicitation is not required; stop here.

□ Check here if the applicant will not complete the work on his/her own. Bid solicitation is required for each component with an estimate of $30,000+ as indicated by the District.

PART 2. VENDOR INFORMATION

Information	Vendor #1	Vendor #2	Vendor #3	Vendor #4
Vendor Name				
Person Contacted and Title				
Phone Number and/or Email Address				
Mailing Address				
Date and Time that Bid was Obtained				

PART 3. VENDOR ESTIMATES

	Project Component(s) Requiring Bids (e.g. Pipeline, Watering System, Well)	Vendor #1	Vendor #2	Vendor #3	Vendor #4
1					
2					
3					
4					
5					
6					
7					
	Grand Total if Multiple Component Bids:				
	Estimated Project Start Date:				
	Estimated Project Completion Date:				

Selected Vendor:_____

Reasoning if Lowest Bid is not Selected: _____

Reasoning if the Minimum Three Bids are not Obtained: _____

Other Comments: _____

Applicant Signature: _____

Signature Date: _____

CREP Documentation

Districts must file their copy of all CREP-related forms within the participant's folder. Conservation Plans and practice design sheets should be kept with individual case files.

Districts shall keep copies of the appropriate FSA forms (CRP-1 and appropriate 848(s)), the USDA Conservation Plan, and a copy of DCR form 199-071 or Parts I, II and III of the Virginia BMP Incentives Program Contract in the participant's folder. The District should reference the signed 848 on the Virginia BMP Incentives Program Contract Part II (statement of technical need) and Part III (participant and technical practice certification signature areas.

FSA will keep all billings and expense records.

Data Reporting

In order to adequately track program effectiveness and to make necessary management decisions, it is vital that all data requested on the Virginia BMP Incentives Programs Contract be entered and updated into the AgBMP Tracking Module in a timely fashion. The AgBMP Tracking Module will be maintained on the Richmond server and will be available for generating reports through Logi Ad Hoc software accessible by District staff.

DCR Data Services staff will collect VACS Program data quarterly. All necessary data must be entered into the AgBMP Tracking Module by the identified cost-share program schedule for each quarter and the close of the Program Year. Districts must submit an estimated funding need based upon data entered into the AgBMP Tracking Module for the coming quarter to their Conservation District Coordinators (CDCs) before quarterly disbursement letters can be generated.

Completion Dates and Carryover Practice Status

Unless otherwise stated in the Manual, VACS practices must be completed within the Program Year in which they were approved; therefore, they have a One-Program Year completion date. However, many structural practices have a Two-Program Year completion date, all of which are eligible for Carryover. Please see the tables below for details.

Districts shall set and enforce completion dates for approved practices and inform the successful applicant of their required completion date. The required completion date must be entered by the District in the General tab of the AgBMP Tracking Module when approving practices. All efforts should be made to complete approved practices by the required completion date. To that end, practices will be monitored by District staff until completion.

Approved practices not started, not under construction, or not complete by the applicable completion date (i.e. One or Two-Program Years) are to be canceled in order to reauthorize funds from canceled practice for other applicants. Practices canceled for **lack of completion effort** should not be eligible for funding in future Program Years. When mitigating circumstances influence a participant's ability to complete an approved practice, cancelled practices may be reconsidered by the District Board in a new Program Year. The

following BMPs may need more than one program year to complete and should be maintained in the AgBMP Tracking Module in accordance with the Carryover rules contained in these Guidelines:

Practices with One-Program Year completion dates eligible for Carryover	
FR-4	Woodland Erosion Stabilization
NM-3C	Split Application of Nitrogen on Corn Using Pre-Sidedress Nitrate Test
NM-5N	Precision Nitrogen Management on Cropland - Nitrogen Application
NM-5P	Precision Nitrogen Management on Cropland – Phosphorous Application
NM-7	Cover Crop for Managing Liquid or Semi-Solid Manure
RMP-1	Resource Management Plan Development
RMP-2	Resource Management Plan Implementation
SL-1	Long Term Vegetative Cover on Cropland (May not be carried over more than two planting seasons, i.e. spring and fall.)
SL-8A	Protective Cover for Agricultural Cropland
WQ-12	Roof Runoff Management System

Practices with Two-Program Year completion date (all are eligible for Carryover)	
FR-1	Afforestation of Crop, Hay and Pasture Land
FR-3	Woodland Buffer Filter Area
SE-1	Vegetative Stabilization of Marsh Fringe Areas
SE-2	Shoreline Stabilization
SL-4	Terrace Systems
SL-5	Diversions
SL-6N	Stream Exclusion with Narrow Width Buffer and Grazing Land Management
SL-6W	Stream Exclusion with Wide Width Buffer and Grazing Land Management
SL-7	Extension of Watering Systems
SL-9	Grazing Land Management
SL-11	Permanent Vegetative Cover on Critical Areas
SL-11B	Farm Road, Animal Travel Lane, Heavy Use Area Stabilization
WP-1	Sediment Retention, Erosion or Water Control Structures
WP-2A	Streambank Stabilization
WP-2B	Stream Crossings & Hardened Access
WP-2C	Stream Channel Stabilization
WP-2N	Stream Protection (Fencing with Narrow Width Buffer)
WP-2W	Stream Protection (Fencing with Wide Width Buffer)
WP-3	Sod Waterway
WP-4	Animal Waste Control Facilities
WP-4FP	Feeding Pad
WP-4LC	Animal Waste Control Facility for Confined Livestock Operations
WP-4LL	Loafing Lot Management System with Manure Management
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage

WP-4B	Dairy Loafing Lot Management System
WP-4C	Composter Facilities
WP-4F	Animal Mortality Incinerator Facilities
WP-5	Stormwater Retention Pond
WP-6	Agricultural Chemical & Fertilizer Handling Facility
WP-7	Surface Water Runoff Impoundment for Water Quality
WQ-5	Water Table Control Structures
WQ-11	Agricultural Sinkhole Protection

Carryovers for practices with One-Program Year completion dates

Just prior to the end of a Program Year, the District must assess all approved BMPs that have not been completed and determine which approved practices will be carried over for completion in the next Program Year. For eligible practices only, the District Board may extend the completion date if justified (i.e. under construction) for up to one additional Program Year; the District Board must take formal action to approve the BMP status being changed to “Carryover.” Completion and certification of carried over practices should be achieved as quickly as possible during the One-Year Carryover period. Practices that are carried over but not completed by the end of the additional Program Year will be canceled; no further extension will be granted.

Carryovers for practices with Two-Program Year completion dates

Just prior to the end of a Program Year in which a practice with a Two-Program Year completion date is approved, the District will need to change the status of all eligible contracts to "Carryover". At the end of the second Program Year, the District must assess these Carryover BMPs that have not been completed and determine which practices will be carried over for completion in the third Program Year. For all practices that are approved with a Two-Program Year completion date, the District Board may only extend the completion date for one additional Program Year (i.e. the third Program Year) if justified by substantial construction. The District Board must take formal action to approve the extended BMP completion date. Completion and certification of carried over practices should be achieved as quickly as possible during the approved Carryover period.

Additional Carryover requests for Two-Program Year practices

If a Two-Program Year practice is still not completed by the end of the third Program Year, an additional Carryover may be requested by the District for approval by the Agricultural Incentives Program Manager. Each second Carryover request will be considered on a case-by-case basis. A request should only be made if the need for a new completion deadline can be justified; approval of an additional Carryover request is at the discretion of the Agricultural Incentives Program Manager. If approved, an additional Carryover shall be granted for one additional Program Year (i.e. the fourth Program Year). **Approved practices not completed by the end of this additional Program Year date will be canceled; no further extension will be granted.**

Process for all Carryover practices

For all Carryover practices including requests made to the Agricultural Incentives Program Manager for additional Carryovers, District staff should enter a justification statement in the AgBMP Tracking Module in the "Justification" box (under the Measurements tab under "Carryover measurements") for each contract instance. District Boards should review and grant preliminary approval for Carryovers at their June Board meetings. Subsequently, a signed Carryover report generated in Logi shall be submitted by the District to the District's Conservation District Coordinator (CDC) by July 15th. The CDC will review the report and forward the signed report to the Agricultural Incentives Program Manager.

For Carryover requests requiring approval by the Department, the Agricultural Incentives Program Manager will review the submitted Logi report and will send either authorization to extend the completion date or denial of the request via email to District staff. During this review, the Department reserves the right to cancel any additional Carryover practices that are not substantially justified.

It is the responsibility of each District to monitor progress of approved BMPs and communicate the preceding expectations to all affected program participants.

<u>An Extreme Act of Nature (EAN) for SL-8B Practices Only-Definition and Process</u>

For this Program, an “Extreme Act of Nature” (EAN) shall mean some sudden and irreversible act of nature that could not have reasonably been foreseen or prevented. Examples include floods, drought, fire, and exceptional storms like hurricanes and tornados. Generally, such events should be supported or documented by actions that could include a Governor’s disaster designation or weather records that document excessive rainfall, floods, tornados or other such events.

For an SL-8B practice only, any local District Board of Directors (BOD) may authorize a one-time per planting season extension of up to 14 days beyond the specified standard planting dates cited within the practice specifications. However, once planted, those cover crops must satisfy the required performance criteria included in the practice specification. When an EAN planting date extension is approved for up to 14 days, the date for meeting the performance criteria is automatically extended for the same length of time. Payments approved under the EAN extension shall only apply to the standard planting date. The EAN extension is not intended to extend the early planting dates or authorize early payment amounts beyond those contained within the BMP specifications.

The BOD’s actions for the extension of the planting and performance criteria dates must be supported by documentation. There are two options that allow the BOD to approve an extension for an entire county, city, or multiple jurisdictions. The BOD must have one of the following to document such an action:

1. Documentation of the Governor's request for a disaster designation. The disaster declaration must directly impact the germination or growth of cover crops in the counties or cities included in the designation; or
2. Documentation of a Farm Service Agency (FSA) disaster declaration. The disaster declaration must directly impact the germination or growth of cover crops in the counties or cities included in the designation.

If there is no disaster declaration request from the Governor or disaster designation issued by FSA, the BOD may extend the planting and performance criteria dates by hydrologic units (HUCs). To do so, the BOD must have both:

1. Documentation from a local credible source such as the local Virginia Cooperative Extension Agent who serves the applicable HUCs impacted or the local Agricultural Research and Extension Center (if applicable), which clearly references the unusual EAN circumstances in the HUCs impacted; and
2. Documentation from a professionally recognized climatology expert which clearly references the unusual EAN circumstances in the HUCs being considered for an extension. For drought conditions, this could include the United States Drought Monitor, State Climatology Office or the Palmer Drought Severity Index.

The BOD may grant an EAN extension for one or more hydrologic units (HUCs) within their District boundaries that will apply to all SL-8B contracts that are wholly within those HUCs. Note that in the case of HUCs that fall within multiple Districts boundaries, the District's EAN designation of the HUC only applies to the portion of the HUC within the District's jurisdiction.

After any actions are taken by the BOD to grant an EAN extension to SL-8B standard planting dates using any of the three allowable options, the DCR Agricultural Incentives Program Manager must be notified. Additionally, such documentation supporting actions taken by the BOD must be included in each impacted participant's folder and included in the minutes of the BOD meeting. Compliance with the performance criteria through the District technical employee's best professional judgment is required to ensure Virginia taxpayers do not pay for cover crop plantings that do not provide water quality benefits.

If the BOD determines that EAN circumstances exist during the recognized planting period and that the participant could not reasonably fulfill planting deadline requirements, the participant may decide not to plant the cover crop practice and the practice should be canceled. The participant's decision to cancel the practice should not negatively affect future cost-share application requests. If the participant chooses to plant the cover crop prior to the extended deadline, but the cover crop fails to meet the practice performance criteria, the practice will not be certified as complete and the participant will not be paid for the practice.

An Extreme Act of Nature (EAN) for Other Cover Crop Practices (Including SL-8H, NM-7 and WQ-4) – Definition and Process

In the case of an Extreme Act of Nature with statewide implications, the Director of the Virginia Department of Conservation and Recreation, in consultation with the Virginia Soil and Water Conservation Board, may authorize District Boards to provide an extension for certain cover crop planting dates of up to 14 days beyond the planting date. Once planted, all practices must satisfy the required performance criteria included in the practice specification. When a planting date extension is authorized, the date for meeting the practice's performance criteria will be automatically extended.

Practice Failures due to an Extreme Act of Nature (EAN)

A producer may be eligible to receive cost-share funding for practice failures or damage to a practice resulting from an irreversible Extreme Act of Nature such as a flood, drought, fire, hurricane or tornado in order to assist with the costs of the necessary repairs to ensure the practice is fully functioning. The practice must have been certified and the failure or damage due to the EAN must have occurred during the lifespan requirement of the practice in order for the producer to be eligible for funding. If the failure or damage occurs during the Program Year in which the practice was funded and certified, the participant must wait until the next fiscal year to apply for additional funds.

Practice failures or damage that results from other causes are not eligible for cost-share funding unless specifically authorized in the practice specification. Failures or damages that occur to practices that are the result of a lack of routine maintenance are also not eligible to receive cost-share funding. Routine maintenance is the responsibility of the applicant for the lifespan of the practice.

Conditions of receiving cost-share funding for an EAN

If a participant receives cost-share funding via the EAN practice failure process, the participant will (i) receive the cost-share rate established in the current equivalent VACS practice specification and (ii) will be responsible for a newly reset lifespan requirement for that practice based upon the current equivalent VACS practice specification. Previously established buffers shall not receive a buffer payment. District staff shall inform the participant that there is no guarantee of funding.

Process for requesting cost-share funding for an EAN

A. If the participant requests cost-share funding in response to an EAN, District staff shall proceed as follows:
    1. If the practice requires Engineering Job Approval Authority (EJAA), the District staff person with the appropriate EJAA shall schedule a site visit to inspect the practice and ensure that the practice failure is eligible for assistance under the EAN provisions. District staff shall work with the participant and DCR Engineering Services as needed to plan an acceptable least cost, technically feasible solution for repairing the practice;

2. District staff shall develop a map of the project, including the solution to the practice failure, digitize the practice and run Resource Reviews in the AgBMP Tracking Module as applicable per the VACS Manual, and formulate the Estimated Instance Cost, Estimated Cost-Share Payment and Tax Credit for the project repair (though the Programs tab will not be editable until the Practice Failure funds are approved); and,
3. District staff shall notify the applicable Conservation District Coordinator (CDC) that they have a previous Program Year BMP instance that has been determined to have failed due to an EAN during the lifespan of the practice. District staff should provide project details to their CDC as to why additional cost-share is warranted, including a narrative, the map of practices, Estimated Instance Cost, Estimated Cost-Share Payment and Tax Credit.

B. The CDC will review and, when all necessary information is received, will route the request to the Agricultural Incentives Program Manager for review and approval if warranted.

   If approved by the Agricultural Incentives Program Manager, DCR Data Services staff will be notified and the following steps will be taken in the AgBMP Tracking Module:

   1. DCR Data Services staff will create the appropriate budget in the Program Year of the BMP instance which failed;
   2. The CDC will transfer the requested funds from the current Program Year back to this new budget;
   3. DCR Data Services staff will adjust the lifespan of the BMP instance to reflect a renewed full practice lifespan per the current VACS Manual; and
   4. DCR Data Services staff will unlock the BMP instance allowing District staff to enter the additional funding on the Programs tab.

C. The District Board shall only approve the use of the cost-share funds for the practice failure after the Agricultural Incentives Program Manager approves and the appropriate steps are taken by both DCR Data Services staff and the District as outlined above.

D. The participant may not begin construction until the District Board has authorized the use of cost-share funds and any other necessary requirements, such as an approved Design and the Bid Process, are completed. Any BMPs utilized to address the Practice Failure that are initiated or installed prior to contract approval are not eligible for funding.

E. Following Board approval, District staff will follow the normal data entry process in the AgBMP Tracking Module as the BMP instance is returned to a fully functioning practice. When the repairs are completed, District staff will:
   1. Complete the data entry on the Programs tab;
   2. Update the Technical Certification Date to the date the repairs were certified as completed;
   3. On the General tab, enter a detailed comment describing why the additional funds were provided;

4. Change the status of the BMP practice to complete;
5. Issue the additional payment to the participant; and
6. District staff will notify their CDC that the payment has been issued. The CDC will review the data entry for completeness.

Reapplication for Practice Failure can be authorized only once for the specific practice on the specified acreage (except where not eligible as stated in specifications). If the practice fails for the second time after certification and payment, reestablishment will be at the participant's expense and must be maintained for the specified life span.

A District Board may also approve additional cost-share funds up to the specified practice cost-share rate as allowed within this Manual for additional eligible component expenses when such components are damaged or destroyed by an EAN during construction or prior to certification. Such funds shall only be paid upon project completion and certification.

Practices Not Maintained or Destroyed During Lifespan

Participants found, at any time of year, to have practices not meeting specifications, practices not being maintained, or practices destroyed during the designated lifespan of the practice will be contacted by the District, informed of the nature of the deficiency, and notified of pending repayment requirements if the deficiency is not corrected. This should initially be a verbal notice (with the date documented in a case file). Verbal notice should be followed with a written notice (by certified mail) within two weeks. This notice must indicate the observed nature of the problem and allow the participant the opportunity to respond within two weeks.

Participants may be given a maximum grace period of six months from the date of the written notification for practice compliance. At the end of the grace period, the practice will be re-inspected. If still not in compliance, the District will notify the participant in writing that repayment of state cost-share funds is required.

Participants will have 60 days from the date of the District’s notification of repayment to refund the state cost-share funds. If restitution has not been made at the end of this 60-day period, the District will notify the Office of the Attorney General (OAG) for assistance to reclaim state funds. It is recommended that the OAG be apprised of the need for assistance as soon as the deadline for recovery has passed.

Transferring a BMP Cost-Share Instance or Contract

Where ownership or leasehold of property has changed, the original applicant is still the individual responsible for the maintenance of the practice, and failing that, for the return of the cost-share funds or state tax credits. The terms of any sales agreement, lease agreement, or other transaction document for any property with a cost-shared practice present or any practice that received tax credits should address this responsibility and be legally effective to transfer it to the new property owner or operator. Upon the transfer of ownership or leasehold of the

property, the original applicant must present to the District for their approval an executed copy of the "*Agricultural Best Management Practice Maintenance Agreement Transferring Responsibility for Best Management Practice*" thereby transferring legal responsibility for maintenance of the practice to the new property owner or lessee or a pro-rated return of cost-share funds. If tax credits were received, the original applicant must provide documentation to the District that written notification was provided to the Virginia Department of Taxation of the property's sale or transfer.

When a BMP contract or a BMP instance must be transferred to a new participant prior to the completion of the BMP, District staff will complete the form "*Agricultural Best Management Practice Maintenance Agreement Transferring AgBMP Contract to a New Participant before Practice Completion*". District Board approval is not necessary unless the BMP contract or instance being transferred has been approved by the Board of Directors to receive cost-share.

The appropriate CDC must concur with the transfer and, upon concurrence, will provide the completed agreement to DCR Data Services staff to make changes in the AgBMP Tracking Module. After the changes are completed, District staff will have the new participant sign a new Part I form for the file. If one or more of the instances requesting a change in the participant has been approved by the Board to receive VACS cost-share or certain tax credits, then the District Board must approve the transfer. A Board of Director's member must sign the Transfer form upon approval by the Board.

Commonwealth of Virginia
Agricultural Best Management Practice
Transferring AgBMP Contract to a New Participant Before Practice Completion

This agreement is intended to designate the transfer of an AgBMP Contract from one participant to another. This form is only to be used in cases where the BMP instances under the contract have not been certified as complete. If the BMP has been completed use the *Agricultural Best Management Practice Agreement for Transferring Maintenance Responsibility* form. The present participant (owner or operator) of the property has requested a change in his/her information entered into the AgBMP Tracking Module. In cases where BMP instances under the contract have been approved by the District Board, this request must also be approved by the District Board.

Contract No. _____

PRESENT PARTICIPANT-NAME AND ADDRESS and SSN or Tax ID	NEW PARTICIPANT-NAME, ADDRESS and and SSN or Tax ID
_____	_____
_____	_____
_____	_____
_____	_____
Phone No._____	Phone No. _____

The undersigned hereby certify that the present participant has requested the Contract be transferred to the new participant. The new Participant will be required to sign an updated Part I – Application for Program form, and if any BMP instances under the Contract have been approved by the District Board, an updated Part II – Technical Determination and District Approval form.

_____	_____
(SIGNATURE OF PRESENT PARTICIPANT)	(SIGNATURE OF NEW PARTICIPANT)
_____	_____
DATE	DATE

APPROVED BY:_____ DATE: _____
(District Staff or District Board Member) (Approval Date)

CDC Concurrence:_____ DATE: _____

Commonwealth of Virginia
Agricultural Best Management Practice
AGREEMENT TRANSFERRING MAINTENANCE RESPONSIBILITY FOR
BEST MANAGEMENT PRACTICE

This agreement is intended to designate the transfer of maintenance responsibility for a Best Management Practice that received cost-share or tax credit. The present participant (owner or operator) of the property has received funding from the Commonwealth of Virginia to implement a Best Management Practice on the below-referenced land unit. In return he/she has agreed to maintain the practice until_____. Completion of this agreement acknowledges assumption of this responsibility by the new participant, including the requirement to repay cost-share and tax credit received by the present participant if the BMP is not maintained according to state specifications.

Farm No._____Tract No._____Field No. (s)_____

VACS specification number_____Extent Installed_____

Or

Contract No. _____

PRESENT PARTICIPANT-NAME AND ADDRESS	NEW PARTICIPANT-NAME AND ADDRESS
_____	_____
_____	_____
_____	_____
_____	_____
Phone No._____	Phone No. _____

The undersigned hereby certify that the present participant has transferred to the new participant his or her right and interest in the land unit described above. In consideration of this transfer of ownership or leasehold, it is hereby agreed:

1. The new participant hereby assumes the duties and obligations of the present participant under Contract No._____to maintain the above BMP for its lifespan in accordance with state specifications, and to refund all or part of the cost-share assistance or tax credit if the practice is found not to meet state specifications, or if the practice is removed or not properly maintained during its lifespan. The new participant agrees to allow District personnel access to property for the purpose of verifying maintenance of the BMP.
2. The_____District acknowledges the transfer of the maintenance responsibility. Any cost-sharing or assistance provided under this transfer agreement shall be in accordance with applicable program rules and regulations of the Virginia Agricultural BMP Manual.

_____	_____
(SIGNATURE OF PRESENT PARTICIPANT)	(SIGNATURE OF NEW PARTICIPANT)
_____	_____
DATE	DATE
_____	_____
SSN or Federal Tax ID #	SSN or Federal Tax ID #
APPROVED BY:_____	DATE: _____
(District Board Member)	(Board Member Approval Date)

Return of Cost-Share Funds

All or part of the cost-share funds may be returned based upon a straight-line pro-rata basis if appropriate. This should be calculated on a monthly basis. For example: XYZ District made a $12,000 cost-share payment for a SL-6W practice to Farmer Green on October 10, 2014. The practice guidelines stipulate that the lifespan of the practice begins on January 1 of the calendar year following the certification of completion (see definition of Lifespan in the Glossary). This practice is spot checked in August of 2017 and it is discovered that the land was sold in June 2017 for development and the practice has been destroyed. The District should calculate the landowner's pro-rata share as follows:

- Installation date: October 10, 2014
- Lifespan of practice: 10 Years- January 1, 2015 through December 31, 2024: 120 months
- Spot Check Date: August 2017
- Practice in Compliance: January 2015 through June 2017: 30 months
- Cost Share to Landowner: $12,000
  $12,000 divided by 120 months = $100/month
- Repayment Calculation: 120 months – 30 months = 90 months
- Landowner repayment to District: 90 months X $100/months = $9,000.00 (District will deposit funds to the appropriate cost-share account)

In the case of the death of the applicant, this requirement may be waived but an official action of the District Board waiving this requirement must be recorded in the minutes.

When a District has determined that a practice has failed or been destroyed and has followed all of the practice failure and repayment procedures, and the participant claims that due to an unforeseen hardship he is unable to repay the cost-share funds, the hardship process may be initiated.

Hardship Process (including highly unusual situations)

This process may be utilized in highly unusual situations where a participant requests that the District Board forgive repayment of cost-share funds due to failure or destruction of a BMP. The District Board must determine that, due to highly unusual circumstances beyond the participant's control, it is reasonable to forgive repayment of cost-share funds normally associated with a practice failure. The circumstances must be severe such as a life-threatening illness, bankruptcy, or some other highly unusual situation. This process may not be used to provide relief associated with planting dates, lack of cover for cover crop practices, or other modifications to practice specifications.

If appropriate in “hardship” cases, the District Board may make alternative recommendations for DCR’s consideration. All requests for hardship shall be submitted in writing to the Agricultural Incentives Program Manager and copied to the appropriate Conservation District Coordinator (CDC). When a hardship request is received by DCR, an ad hoc committee composed of at least three members; the regional CDC, the Agricultural Incentives Program Manager, and another DCR manager will be convened. The District may act as an advocate for the program participant or the participant may present his own case either in writing, via conference call, or in person.

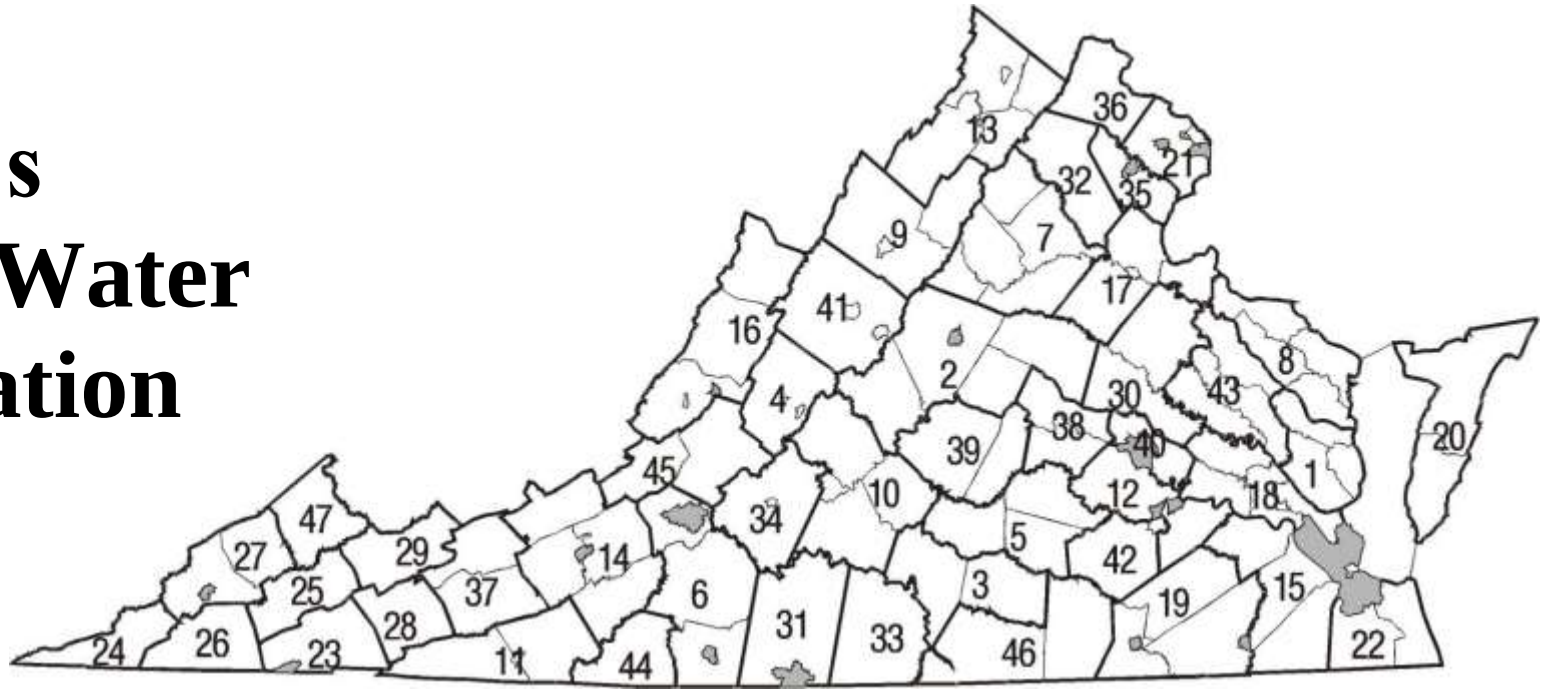
Documentation certifying the existence of a highly unusual circumstance or hardship that provides a clear reason why the participant should (i) be relieved of his responsibility to repay, (ii) granted a reduced repayment, or (iii) be allowed to restructure repayment of the cost-share amount due to the District must be provided to the committee. The ad-hoc committee will render its decision whether or not to grant a hardship exemption in writing to the District and participant citing its reasoning and referencing the documentation provided.

The regional CDC must be copied on all correspondence and be kept informed of any related activities.

VACS Program Questions

Questions concerning any aspect of the VACS Program that are not addressed in this Manual should be directed to either the regional Conservation District Coordinator or to the Agricultural Incentives Program Manager.

Virginia's Soil and Water Conservation Districts



1	Tidewater	(804) 693-3562	13	Lord Fairfax (Winchester)	(540) 465-2424	25	Clinch Valley	(276) 889-4650	37	Big Walker	(276) 484-9365
2	Thomas Jefferson (Charlottesville)	(434) 975-0224	14	Skyline	(540) 381-0071	26	Scott County	(276) 386-3951	38	Monacan	(804) 556-4936
3	Southside	(434) 542-5405	15	Peanut (Suffolk)	(757) 357-7004	27	Lonesome Pine	(276) 926-6621	39	Peter Francisco	(434) 983-7923
4	Natural Bridge (Buena Vista, Lexington)	(540) 319-6453	16	Mountain (Covington)	(540) 839-4616 1-(800) 254-3854	28	Evergreen	(276) 706-3064	40	Henricopolis	(804) 501-5175
5	Piedmont	(434) 392-3782	17	Tri-County/City (Fredericksburg)	(540) 656-2401	29	Tazewell	(276) 979-4190	41	Headwaters (Staunton, Waynesboro)	(540) 248-0148
6	Blue Ridge (Roanoke)	(540) 483-5341	18	Colonial (Williamsburg)	(757) 645-4895	30	Hanover-Caroline	(804) 537-3009	42	Appomattox River (Petersburg)	(804) 469-7297
7	Culpeper	(540) 825-8591	19	Chowan Basin	(434) 336-6251	31	Pittsylvania	(434) 432-9455	43	Three Rivers	(804) 443-2327
8	Northern Neck	(804) 313-9102	20	Eastern Shore	(757) 787-0918	32	John Marshall	(540) 347-3120	44	Patrick	(276) 694-3121
9	Shenandoah Valley (Harrisonburg)	(540) 534-3049	21	Northern Virginia	(703) 324-1460	33	Halifax	(434) 476-7923	45	Mountain Castles	(540) 400-0707
10	Robert E. Lee (Lynchburg)	(434) 352-2819	22	Virginia Dare (Chesapeake, Virginia Beach)	(757) 382-6616 (757) 385-8589	34	Peaks of Otter	(540) 587-7645	46	Lake Country	(434) 738-0150
11	New River (Galax)	(276) 236-7191	23	Holston River	(276) 525-6685	35	Prince William	(571) 379-7514	47	Big Sandy	(276) 935-7750 (276) 935-7751
12	James River	(804) 732-6550	24	Daniel Boone	(276) 346-1531	36	Loudoun	(571) 918-4530			

Note: Cities within Districts are listed in parentheses after the appropriate District.

Hydrologic Unit Geography

A true watershed is an area of land and water defined by a boundary such that all surface drainage within this boundary converges to a single point. This point of convergence is usually the exit point, where the collected waters leave the watershed. In contrast, hydrologic units are drainage areas that are delineated into a multi-level hierarchical drainage system. Many hydrologic units are watersheds. Some, however, have multiple points of surface drainage entering and/or exiting the unit.

The NRCS, USGS, EPA, and state environmental partner agencies teamed up with the Subcommittee on Spatial Water Data as part of the Advisory Committee on Water Information (ACWI) and the Federal Geographic Data Committee (FGDC) to develop Federal Standards for the Delineation of Hydrologic Unit Boundaries beginning in 2001. The standards were used for creating seamless 5th and 6th level hydrologic units for the entire nation as part of the Watershed Boundary Dataset (WBD).

In Virginia the digital product resulting from the delineation and capture of these units is the National Watershed Boundary Dataset (NWBD). Sixth level units were delineated by DCR to preserve as much of the intent of the 1995 pre-WBD Virginia hydrologic unit boundaries as possible while creating the Virginia NWBD. This hydrologic unit product, arising from compliance with the continually updated WBD standards, currently contains 1,251 6th level units that are wholly or partially in Virginia. Sixth level NWBD hydrologic units are typically from 10,000 to 40,000 acres each.

To uniquely identify NWBD units in Virginia without requiring the use of 10 or 12 digits, DCR developed a 4-character internal coding scheme for the 5th (VAHU5) and 6th (VAHU6) level units of the NWBD. The first two characters of the VAHU6 code are based on the major stream name in the basin, or portion of the basin, where the unit is located (see Table below). The two digits that follow are a numbering scheme based on the drainage flow upstream to downstream. More information about the hydrologic unit systems of Virginia can be found at the DCR Hydrologic Unit Geography web page: http://www.dcr.virginia.gov/soil_and_water/hu.shtml.

NWBD Hydrologic Unit Codes (VAHU6)	**DRAINAGE**
PL01-PL74	POTOMAC RIVER, LOWER
PU01-PU22	POTOMAC RIVER, UPPER
PS01-PS87	POTOMAC RIVER-SHENANDOAH RIVER
CB01-CB47	CHESAPEAKE BAY/CHESAPEAKE BAY COASTAL
AO01-AO26	ATLANTIC OCEAN COASTAL
RA01-RA74	RAPPAHANNOCK RIVER
YO01-YO69	YORK RIVER
JL01-JL59	JAMES RIVER, LOWER (TIDAL)
JM01-JM86	JAMES RIVER, MIDDLE (PIEDMONT)
JR01-JR22	JAMES RIVER- RIVANNA RIVER

NWBD Hydrologic Unit Codes (VAHU6)	DRAINAGE
JU01-JU86	JAMES RIVER, UPPER (MOUNTAIN)
JA01-JA45	JAMES RIVER- APPOMATTOX RIVER
CM01-CM32	CHOWAN RIVER-MEHERRIN RIVER
CU01-CU70	CHOWAN RIVER, UPPER
CL01-CL05	CHOWAN RIVER, LOWER
AS01-AS20	ALBEMARLE SOUND COASTAL
RU01-RU94	ROANOKE RIVER, UPPER
RD01-RD77	ROANOKE RIVER- DAN RIVER
RL01-RL24	ROANOKE RIVER, LOWER
YA01-YA07	YADKIN RIVER-ARARAT RIVER
NE01-NE90	NEW RIVER
TH01-TH46	TENNESSEE-HOLSTON RIVER
TC01-TC35	TENNESSEE-CLINCH RIVER
TP01-TP19	TENNESSEE-POWELL RIVER
BS01-BS35	BIG SANDY RIVER

Hydrologic Unit Reporting

Since 1995, Virginia has been reporting BMP implementation utilizing the 6th level Hydrologic Unit Codes (HUCs). Virginia state agencies and federal funding agencies now use the NWBD hydrologic unit codes (VAHU6) as the 12 digit unit identifier.

Tables which identify the VAHU6 codes that exist within each county and city in Virginia may be found on DCR's website. To assist in making HUC determinations, Districts may also use the Virginia Hydrologic unit Explorer web map service at: http://dswcapps.dcr.virginia.gov/htdocs/maps/HUExplorer.htm. Any BMP Tracking Program entry now includes the appropriate VAHU6 code.

The Virginia NPS Assessment is utilized to direct cost-share funding toward hydrologic units with the greatest potential to contribute agricultural non-point source pollution into Virginia's rivers and streams. The 2020 NPS Assessment agricultural ranking data layers are incorporated into the AgBMP Tracking Module Mapping System to assist Districts in targeting and ranking VACS applications.

BMP Verification Procedures

Overview

BMP verifications are meant to determine practice viability and lifespan. For BMPs in the Chesapeake Bay watershed, verifications also allow the Commonwealth to continue to receive nutrient and sediment loss reduction credit in the EPA Chesapeake Bay Program Phase 6 model. Technical accuracy was determined at the time of certification by personnel assigned technical certification responsibilities. If technical problems exist, the District and the appropriate technical agency should be notified. Annual practices such as WQ-4, SL-8, etc., are not subject to verification, but technical certification inspections will be carried out during the fiscal year as appropriate. Any verification inspections conducted by other local, state, and federal agencies may be considered by DCR in developing the verification inspection schedule and the results of those verification inspections may be used for DCR reporting requirements.

1. BMP verifications are conducted by District personnel under the guidance of DCR staff. Technical agencies involved (NRCS and DOF) should be notified that verification inspections are to occur but staff from these agencies are not required to be present at the inspection. BMP inspections are intended only to verify the practice's existence on the farm, and that the practice meets basic specifications.

2. For structural and land management practices, BMP verifications should be conducted after the close of the Program Year but early enough to allow modification and vegetation to be re-established (if needed).

3. Random BMP verification inspections will be conducted by the District Conservation Specialist/Technician under the guidance of DCR staff to determine that the individual practice is still viable. The CDC will also conduct administrative reviews periodically.

4. The list of BMPs selected for verification will be made available to Districts through the BMP Verification portion of the AgBMP Tracking Module.

5. Upon the completion of the BMP verifications, District personnel must inform the appropriate technical agency if any corrective action is needed and when such action can begin; the District Board must be informed of the results of the verification inspections at its next regularly scheduled meeting after the verifications are completed. BMP verification information may be accessed by the Conservation District Coordinator through the AgBMP Tracking Module and DCR's Logi reporting system. The BMP Verification portion of the AgBMP Tracking Module is considered the source system of record by DCR for this information.

6. Results of the BMP verification inspections for practices receiving cost-share from other sources should be shared with the appropriate agency.

7. BMP verification data will be consolidated into a table via DCR's Logi reporting system; the table will indicate how many inspections were conducted, how many practices were in compliance, and how many practices require additional District follow up. The report will be used by the CDC to ensure that Districts follow-up on practices needing additional attention, that all issues are resolved, and if needed, a pro-rata return of cost share and tax credits are returned to the District.

8. Practices installed under the CREP program are not subject to random selection for District verification.

9. Cover crop and nutrient management practices are technically certified during their single year of VACS Program lifespan and thus are not subject to random selection.

Selection Methodology for BMP Verification

For BMPs located in the Chesapeake Bay Drainage:

Verification procedures for BMPs are subdivided into groups based primarily on the risk of failure as demonstrated by the verification inspection histories for each type of BMP (structural or land management), as well as program type (cost-share or voluntary), whether the BMP is still in VACS Program lifespan, and applicability to the Chesapeake Bay Watershed Implementation Plan.

BMPs will be randomly selected for verification in this manner:

- 2% of structural BMPs still in VACS Program lifespan, which were not verified in the previous calendar year;
- 5% of land management BMPs still in VACS Program lifespan, which were not verified in the previous calendar year;
- 4% of voluntary structural BMPs still in lifespan, which were not verified in the previous calendar year, that meet VACS Program design standards (i.e. the voluntary BMP specification matches the equivalent cost-share specification);
- 7.5% of voluntary land management BMPs still in lifespan, which were not verified in the previous calendar year, that meet VACS Program design standards (i.e. the voluntary BMP specification matches the equivalent cost-share specification);
- 5% of voluntary structural BMPs still in lifespan, which were not verified in the previous calendar year, that do not meet program design standards (i.e. the voluntary BMP specification does not match a cost-share specification);
- 10% of voluntary land management BMPs still in lifespan, which were not verified in the previous calendar year, that do not meet program design standards (i.e. the voluntary BMP specification does not match a cost-share specification); and
- For BMPs not included in the EPA BMP Verification Plan, 5% of all practices in VACS Program lifespan, which were not verified in the previous calendar year, and 5% of practices installed in the previous calendar year.

While not a part of the random selection of BMPs for verification, it should be noted that:

- For BMPs under VACS contract but two years before the last year of their VACS Program lifespan, DCR will work with the District to verify these BMPs (based on available resources) so that they may continue to receive credit in the EPA Chesapeake Bay Program Phase 6 model.
- For BMPs under an extended "credit" lifespan in the EPA Chesapeake Bay Program Phase 6 model due to a verification, DCR will work with the District to verify these BMPs (based on available resources) in their last year of the extended "credit" lifespan

For BMPs located Outside the Chesapeake Bay Drainage:

BMPs will be randomly selected for verification in this manner to monitor long-term compliance:

- 5% of all practices in lifespan which were not verified in the previous calendar year; and
- 5% of practices installed in the previous calendar year.

Biosecurity Considerations

If there is any potential for a biosecurity risk, contamination, or spread of disease, please contact the farm owner or operator before going onsite at any animal operation. The following are minimal guidelines; some operations may have additional biosecurity requirements.

Biosecurity Procedures for Farm Visits to any Animal Operations

Contact the farm owner or operator prior to visiting any farming operation. Biosecurity should be discussed with the farm operator or manager. If farms have more stringent biosecurity measures in place, staff should abide by these additional measures.

Always be aware of the possibility of carrying disease from one operation to another by unknowingly transporting infectious material or agents. The most common transporting material is manure, which may be found on the farmstead in walkways, farm lanes, and applied in fields. You can easily come in contact with manure and have it stick to boots and clothing. Less obvious vectors are flies and other bugs, dust on clothing, and even unwashed hands. Opening and closing gates and doors, brushing against walls and piles of manure, and windblown dust which covers you and your clothing are routine occurrences which can result in the transport of a contaminant.

It is your responsibility to know and follow biosecurity procedures which are appropriate for the species of animal on the farms you are visiting. Practicing these procedures reflects a level of professionalism to your clients and will gain their respect for your concern for their operation.

The Office of Veterinary Services, located within the Department of Agriculture and Consumer Services, and the integrator with whom your client may participate both have biosecurity procedures established to be used during farm visits. The following biosecurity procedures have been reviewed by the office of the Virginia State Veterinarian and USDA-Animal Plant Health Inspection Service (APHIS) and are an acceptable biosecurity procedure for visits to animal operations.

Biosecurity Farm Hygiene Procedures

- Respect all entrance prohibitions on animal farms and/or barns.
- Only enter animal barns or houses if there are no birds or animals in the houses or barns and a total clean out is pending. NO Entrance on Infected Premises or Infected Barn is Allowed Under Any Conditions.
- Upon arrival at any animal farm, report to the farm manager or responsible party. Call ahead if possible.
- Wash/sanitize hands immediately upon arrival before putting on disposable gloves, and again before leaving farm.
- Leave vehicles outside of animal service areas (any area that might contain manure). Walk! Keep vehicle windows closed.

- Avoid visiting two animal farms of the same species within 48 hours if possible.
- Wear boots that can be disinfected or use disposable boot covers and use disposable gloves.
- Put all manure samples into sealed plastic bags, spray outside of the bag with Lysol, and then put sample into second sealable plastic bag.
- All materials used on the site must be disinfected before and after use.
- Boots should be dipped at the entrance and exit of every farm with household bleach solution or other approved disinfectant.
- Spray all equipment with a mix of 8 oz. of household bleach per gallon of water until wet. Leave on for 30 seconds. Allow to air dry or dry off with disposable paper towels. Put gloves and paper towels in plastic trash bag and keep tightly sealed.
- Keep cleaned materials away from contaminated materials.
- Remove all dry litter, mud, and straw etc. from vehicle, especially wheels and wheel wells.
- Spray wheels, tires and wheel wells with disinfection solution. Let drain and dry before moving. If dusty or wet, spray underside of vehicle. Alternative: park vehicle outside farm entrance and WALK!
- Process vehicle through car wash at the end of the day.

A disinfectant currently approved for use by EPA against Foot and Mouth Disease is Virkon-S®. Some other USDA recommended disinfectants are listed below. Please note that minimum contact time (5 to 10 minutes) is necessary, as well as thorough cleaning and scrubbing, to ensure the effectiveness of disinfectants.

For equipment and vehicles (if appropriate):

3 parts household bleach (sodium hypochlorite) to 2 parts water; and
1.3 ounces Virkon-S® (broad spectrum) disinfectant (or similarly approved products) to 1 gallon of water for equipment.

Biosecurity for Poultry

The impact of the recent Avian Influenza (AI) epidemic in the Mid-West has brought greater attention to ensure biosecurity measures are being practiced in the field.

The protocol above only applies for a routine biosecurity level. At an elevated level, entrance to the poultry production area, including litter or manure storage and applications sites, is prohibited and visiting with two animal operations of the same within 48 hours is also prohibited. At a high threat level, entrance to any portion of the animal operation, including the residence, is prohibited and visiting two animal operations of the same species within 48 hours remains prohibited.

Biosecurity, as it pertains to poultry farm inspections, is for the protection of poultry flocks from any type of infectious agent, whether viral, bacterial, fungal, or parasitic in nature. Due to the number of birds confined in one place and the speed at which many infectious agents travel through flocks, outbreaks may have catastrophic results for poultry growers and processors. Biosecurity has three major components: 1) isolation, 2) traffic control, and 3) sanitation.

Below are basic guidelines Districts should make use of when providing technical assistance and inspecting VACS practices:

- All poultry farms are biosecure areas. All traffic must be kept to a minimum. If any business can be conducted over the phone, please do so. If a visit MUST be made to a farm, coordinate it with the farm owner or operator and follow the steps below at all times.
- Plan your onsite farm visits such that your vehicle or person does not become a vector to spread disease. Never travel directly from one poultry farm to another on the same day.
- All vehicles entering a poultry farm must stop at the farm entrance and fill out the visitor log in the mailbox (for farms that have boxes). Please include your name, date, time, company association, reason for visit, and farms visited previously on that day.
- All vehicles must thoroughly disinfect their tires before entering and before leaving a poultry farm. An acceptable disinfectant recommended by USDA and the Office of Veterinary Services is Virkon or Virkon-S (or similarly approved products). Remember, surfaces must be adequately cleaned in order for disinfectants to work.
- Personnel driving or riding in a vehicle that goes on the farm must have protective boots. Either rubber or plastic boots must be put on before getting out of the vehicle. These boots must be worn the whole time on the farm, and be discarded onsite before re-entering your vehicle.
- Vehicle windows should be rolled up at all times while on the poultry farm in order to prevent flies from getting into the vehicle.
- In service vehicles, the floorboard area, including pedals and the entire floor, must be cleaned and disinfected daily. Keep rubber floor mats in vehicles that can be effectively cleaned and disinfected. This is needed even if wearing disposable plastic boots.
- Establish clean and dirty zones in the vehicle. If trunk is the dirty zone, do not move items between trunk and passenger compartments. If the entire trunk cannot be designated as dirty, use a covered rubber or plastic container to hold dirty items.
- Entry into the poultry houses is strictly forbidden unless pre-authorized by the owner, operator, or the poultry company.
- Any activity that requires entry into poultry houses must include clean coveralls, hair nets, clean boots, and use of the disinfect stations provided at the door.
- When exiting the farm, disposable boots should be put in a receptacle provided at the farm. Then spray shoes with disinfectant before entering your vehicle. Hands, rubber boots, and any tools used on the farm must be washed and disinfected.
- Vendor vehicles must be kept clean at all times.
- If you are in any questionable disease situations on a farm, please call before going to other farms.

The following list of biosecurity equipment is recommended as a minimum to be available to District employees.

Spray Tank	Mixing bucket
Large water container	EPA Approved disinfectant – Virkon-S® (or similarly approved products)
Long handled scrub brush	Liquid or gel antibacterial soap
Paper towels	Latex gloves
Disposable boots	Trash bags
Safety goggles	Protective Outerwear - overalls, Tyvek suits

A plastic crate or storage bin to carry and/or hold above items.

Footbaths:

In areas of the state with a health issue identified by the Office of Veterinary Services, Districts should consider in-office footbaths as an important biosecurity tool to be used by clients visiting the office. Clients may be asked to utilize the footbath if they are wearing footwear that has been worn unprotected in an animal production area in the last 5 days. Encourage clients not to wear clothes or footwear that could potentially harbor contaminants to offices or businesses where such visits may facilitate the spread of contaminants. A simple batch can be effective, but the baths need to be free of excess organic material, re-charged according to label instructions, and used by agricultural producers co-mingling at the District office.

Make an Easy Footbath

1. A low plastic pan or bin, wide enough to fit an adult's foot, shallow enough to step into easily
2. A plastic doormat (the "fake grass" mats work well)
3. A disinfectant that works when manure or dirt is present, such as Virkon or Virkon S (or similarly approved products).
4. Water

Mix the disinfectant with water following label instructions. Put the doormat in the plastic pan. Add disinfectant so that the bottom of the "grass" is wet. Ask visitors to walk through the footbath, wiping their feet on the mat. The "grass" scrubs their shoes a bit as they wipe them, and applies the disinfectant. When the liquid starts to get dirty, empty it and put in new disinfectant.

Response to Suspected or Confirmed FMD Outbreak

The Commonwealth has an Emergency Action Plan for Foot and Mouth Disease. Highlights of the draft document appear as bulleted items below.

- The Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Game and Inland Fisheries (VDGIF) will be the primary agencies in investigating, containing, and eradicating an FMD outbreak.

- In the event of a suspected FMD outbreak, prompt notification is critical to a rapid response. Notification of a suspected outbreak must be made to the Virginia State Veterinarian, the Virginia Emergency Operations Center (EOC), the VDGIF, and the Federal Area Veterinarian-In-Charge. If the initial notification is received by any agency other than the Virginia Department of Emergency Management (VDEM), it is imperative that the agency notified contact the Virginia EOC.

- Once the Virginia EOC is notified of a suspected FMD outbreak, normal standard operating procedures will allow for the appropriate notifications to be made to the primary and support state and federal agencies. Laboratory tests must be conducted to confirm FMD at the USDA Plum Island Animal Disease Center, located in New York.

As soon as DCR is made aware of a suspected outbreak in the Commonwealth or surrounding states, all inspections and site visits to farms should cease until the suspected outbreak is confirmed not to be FMD. It is anticipated that this will be accomplished within 24 hours after the lab receives the sample; however, sampling and transport time may add a few days to this process. If the suspected outbreak is ruled not to be FMD, then inspections will continue with staff following the biosecurity procedures outlined above.

- VDEM will request a state Declaration of Emergency from the Governor once it is determined that confirmed Foot and Mouth Disease exists to susceptible domestic and wildlife animals in the Commonwealth, based on a recommendation from the Commissioner of Agriculture and Consumer Services and the State Veterinarian.

- The USDA will support state initiatives to identify, seize, quarantine, eradicate, and dispose of animals and associated contaminated materials. The federal declaration may be issued: (i) prior to the state's declaration if an outbreak occurs in another state or (ii) concurrent with the state emergency declaration if an FMD outbreak occurs first in the Commonwealth.

Farm inspections and visits will cease until such time as the State Veterinarian, in coordination with the USDA Area Veterinarian-In-Charge, determines it safe to resume normal operations.

Continuing Conservation Initiative
Name of Practice: LONG TERM CONTINUOUS NO-TILL PLANTING SYSTEMS
DCR Specifications for No. CCI - CNT

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's continuous conservation initiative long term continuous no-till 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 no-till planting systems and nutrient management planning technologies that result in the reduction of non-point source pollution to state waters from nutrients and sediments. To 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 no-till planting systems reporting practice is designed to provide a financial incentive to assure that lands being managed under continuous no-till planting systems are reported to DCR. These no till 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 continuous no-till planting systems system that results in a **minimum of 60% 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 no till planting methods have been utilized on site and that 60% cover exists on the land. Land enrolled in an active (SL-15A) practice **is not eligible for CCI-CNT**.
   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. All required small grain crops may be harvested for grain only. Straw must remain on the field. Permanent grass or hay land is not considered cropland.
   iii. Participants may not receive CCI-CNT 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 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. 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 no-till methods.

4. Practice Implementation
   i. Biomass requirements for cash grain, oilseed, cotton and small grain rotations must maintain a minimum of 60% 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 5 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 long term implementation rate is an incentive payment of $5 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 ($5/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.

Revised March, 2020

Continuing Conservation Initiative
Name of Practice: FORESTED RIPARIAN BUFFER MAINTENANCE PRACTICE
DCR Specifications for No. CCI-FRB-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's continuous conservation initiative forested riparian buffer best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A riparian forest buffer is a permanent area of trees, usually accompanied by shrubs and other vegetation, that is adjacent to a body of water and is managed to maintain the integrity of stream channels and shorelines; to reduce the impact of upland sources of pollution by trapping, filtering and converting sediments, nutrients and other chemicals; to supply food, cover and thermal protection to fish and other wildlife. (From Virginia's Riparian Buffer Implementation Plan; July 1998)

The purpose of this practice is to offer an incentive that will maintain land use change that has occurred within the last 15 years and maintain a riparian forest buffer to provide streambank protection and to control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality. This practice will also maintain riparian forest areas to benefit wildlife and aquatic environments.

B. Policies and Specifications

1. This practice will maintain buffer areas as a forested zone along streams for protection and filtering of agricultural non-point source pollution from up gradient agricultural production land.

2. The practice must not be in lifespan from any other conservation program.

3. The minimum Chesapeake Bay Preservation Act or other local ordinance(s) required buffer is not to receive cost share.

4. The acceptance of prior cost-share assistance for the establishment of the buffer (site preparation, seedlings, labor, etc.) does not render the site ineligible for receiving this payment, so long as the lifespan of the establishment practice has expired.

5. Any forest management activities shall be pursuant to at a minimum a Department of Forestry Cost Share Plan. The practice shall be maintained for a minimum of 5 years following the calendar year of implementation.

6. This practice is designed to maintain riparian forest buffers that are adjacent to and buffer cropland and pastureland and that have been in production 3 of the last 5 years. Buffer areas that are coming out of an agricultural BMP practice lifespan are eligible. Forestland that has been replanted following timber harvest is not eligible.

7. Flash grazing (allowing livestock to graze the excluded riparian area) is not allowed as a management alternative during the lifespan of this practice. No mowing is allowed in the buffer area.

8. Strip Width - Minimum width of the wooded buffer will be the same as NRCS, Technical Guide as follows: A minimum width of 35 feet from the edge of the stream bank, or up to one-third of the flood plain, not to exceed 100 feet is required.

9. This practice is subject to the specifications as outlined in NRCS 391 Riparian Forest Buffer Standard.

10. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the 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 state cost share rate is a single payment of $200.00 per acre paid up front for the maintenance and protection of a forested riparian buffer for the 5 year lifespan.

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: HERBACEOUS RIPARIAN BUFFER – MAINTENANCE PRACTICE
DCR Specification No. CCI-HRB-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's continuous conservation initiative herbaceous riparian buffer best management practice that are applicable to all contracts entered into with respect to that practice

A. Description and Purpose

Herbaceous riparian buffers are communities of grass like plants and forbs located along the banks of water courses, to filter runoff, anchor soil particles, and protect soils from scour and erosion. Herbaceous riparian buffers trap eroded soil, they help keep sediment out of streams they also improve water quality by filtering out fertilizers, pesticides, and microorganisms that otherwise might reach waterways.

Incentive payments will be provided to maintain herbaceous riparian buffers that are located adjacent to streams and water bodies.

B. Policies and Specifications

1. The herbaceous riparian buffer must be maintained in a manner to filter sheet flow, rather than concentrated flow and that will not degrade the quality of the environment or interfere with the proper functioning of the buffer.

2. The practice must not be in lifespan from any other conservation program.

3. The minimum Chesapeake Bay Preservation Act or other local ordinance(s) required buffer is not to receive cost share.

4. Hay land is not considered cropland for implementing this practice.

5. Herbaceous riparian buffers planned for sediment and related pollutant control must be a minimum of 35 feet wide from the edge of the stream bank, or up to one-third of the flood plain not to exceed 100 feet.

6. Flash grazing (allowing livestock to graze the excluded riparian area) is not allowed as a management alternative during the lifespan of this practice. Mowing of the buffer area shall not occur between April 1 and August 15 to protect wildlife.

7. Do not use as a roadway or equipment turning area.

8. Control of non-native invasive species is allowed; avoid damaging buffer area with herbicides or other controls.

9. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the 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 state cost share rate is a single payment up front of $50.00 per acre of buffer for 35' to 100' wide buffers.

D. Technical Responsibility

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

Revised March 2020

Continuing Conservation Initiative
Name of Practice: STREAM EXCLUSION – MAINTENANCE PRACTICE
DCR Specifications for No. CCI-SE-1

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

A. Description and Purpose

Protection by fencing along **all live 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.

The purpose of this practice is to offer an incentive payment to maintain fences that exclude livestock, 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 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.

2. The practice must not be in lifespan from any other conservation program.

3. The maintenance and use of existing stable livestock crossings and controlled hardened accesses is allowed.

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 for the lifetime of the practice. In the event the fencing is damaged or destroyed it is the responsibility of the participant to repair or replace 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 5 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 state cost share rate is a single payment of $0.50 per linear foot of stream bank or water feature protected, paid upon certification. The payment for the stream bank or water feature excluded will not include any area where livestock have access (i.e. hardened livestock accesses).

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 2020

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

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

A. Description and Purpose

Protection by fencing along **all live 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.

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 5 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 state cost-share 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.

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

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

A. Description and Purpose

Protection by fencing along **all live 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.

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 5 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 state cost-share 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.

Continuing Conservation Initiative
Name of Practice: STREAM PROTECTION WITH NARROW WIDTH BUFFER – MAINTENANCE PRACTICE
DCR Specifications for No. CCI-WP-2N

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

A. Description and Purpose

Protection by fencing along **all live 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.

The purpose of this practice is to offer an incentive payment to maintain exclusion fences and associated components (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 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, up to 25 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 stable livestock crossings and controlled hardened accesses is required.

4. Incentive payments will be based upon the number of stream crossings, livestock accesses, and the existing linear feet of the excluded stream bank or water feature. The payment for the stream bank or water feature excluded will not include any area where livestock have access (i.e. hardened accesses).

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

6. The participant is responsible for inspecting and maintaining all fencing, stream crossings, and livestock accesses during the lifetime of the practice. In the event any of these components are damaged or destroyed it is the responsibility of the participant to repair or replace with no additional CCI funding.

7. This practice is subject to spot checks from District staff annually for the life of the practice.

8. This practice is eligible for re-enrollment.

9. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the 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 state cost-share rate is a single payment of $0.75 per linear foot of stream bank or the perimeter of the water feature protected and $500 for each properly maintained livestock crossing or livestock access. 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.

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: STREAM PROTECTION WITH WIDE WIDTH BUFFER – MAINTENANCE PRACTICE
DCR Specifications for No. CCI-WP-2W

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

A. Description and Purpose

Protection by fencing along **all live 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.

The purpose of this practice is to offer an incentive payment to maintain exclusion fences and associated components (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 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 stable livestock crossings and controlled hardened accesses is required.

4. Incentive payments will be based upon the number of stream crossings, livestock accesses, and the existing linear feet of the excluded stream bank or water feature. The payment for the stream bank or water feature excluded will not include any area where livestock have access (i.e. hardened accesses).

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

6. The participant is responsible for inspecting and maintaining all fencing, stream crossings, and livestock accesses during the lifetime of the practice. In the event any of these components are damaged or destroyed it is the responsibility of the participant to repair or replace with no additional CCI funding.

7. This practice is subject to spot checks from District staff annually for the life of the practice.

8. This practice is eligible for re-enrollment.

9. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the 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 state cost-share rate is a single payment of $1.00 per linear foot of stream bank or the perimeter of the water feature protected and $500 for each properly maintained livestock crossing or livestock access. 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.

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
DCR Specifications for No. FR-1

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. The Virginia Department of Forestry (DOF) forester will develop and /or approve a management plan, (Form 7.8 or other plan), specifying the appropriate tree species before work is started.

2. Crop, hay and pastureland must have been in production for at least two out of the past five years. Forestland being replanted following timber harvest is not eligible.

3. Gullied or eroded areas shall be stabilized with a temporary or suitably durable grass cover until trees are established. Pure stands of fescue are discouraged due to tree establishment competition. Plantings must be protected from grazing.

4. 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 6 months of a suspected failure. District staff will review conditions and determine eligibility for replanting in consultation with Department of Forestry. See Practice Failure section of Guidelines for further clarification. Other sources of funding may be used for replanting.

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

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

7. 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. Department of Forestry will recommend appropriate species.

8. This practice is subject to the density determined by a DOF Forester in accordance with DOF Form 7.8.

9. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. Control of noxious and invasive plants to ensure the survival of the stand is the responsibility of the participant. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share rate is $100 per acre for a 10-year lifespan, or $150 per acre for a 15-year lifespan and 75% of the eligible approved component costs.

2. Eligible component cost receiving 75% cost-share are as follows:
   i. Site preparation – mechanical and/or chemical
   ii. Labor
   iii. Seedlings
   iv. Seed for ground cover (Fescue is discouraged)
   v. Herbaceous plantings/shrubs
   vi. Protective Fencing

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

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

D. Technical Responsibility

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

Revised April 2019

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's woodland buffer filter area best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice creates a woodland buffer filter area to protect waterways or water bodies by reducing erosion, sedimentation, and the pollution of water from agricultural nonpoint 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. The Virginia Department of Forestry (DOF) forester will develop and/or approve a management plan, (Form 7.8 or other plan), specifying the appropriate tree species before work is started.

2. Crop, hay and pastureland must have been in production for at least two out of the past five years. Forestland being replanted following timber harvest is not eligible.

3. Gullied or eroded areas shall be stabilized with a temporary or suitably durable grass cover until trees are established. Pure stands of fescue are discouraged due to tree establishment competition. Plantings must be protected from grazing.

4. 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. 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 6 months of a suspected failure. District staff will review conditions and determine eligibility for replanting in consultation with Department of Forestry. See Practice Failure section of Guidelines for further clarification. Other sources of funding may be used for replanting.

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

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

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

8. This practice is subject to the density determined by a DOF Forester in accordance with DOF Form 7.8.

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

10. All practice components implemented must be maintained either 10 or 15 years, depending on the lifespan which the participant signs up for 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. <u>Rate(s)</u>

1. The state cost-share rate is 95% of the eligible approved component costs plus an incentive:
   i. For conifer buffers; $100.00 per acre for a 10-year lifespan, OR $150 per acre for a 15 year lifespan
   ii. For hardwood buffers $100 per acre for a 10 year lifespan, OR $250 per acre for a 15 year lifespan.

2. Eligible component costs receiving 95% cost-share are as follows:
   i. Site preparation – mechanical and/or chemical
   ii. Labor
   iii. Seedlings
   iv. Seed for ground cover (Fescue is discouraged)
   v. Herbaceous plantings/shrubs
   vi. Protective Fencing

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

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

D. Technical Responsibility

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

Revised April 2019

Name of Practice: WOODLAND EROSION STABILIZATION
DCR Specifications for No. FR-4

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

A. Description and Purpose

This practice will promote land shaping and planting of permanent vegetation on critically eroding areas on forest harvesting sites.

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

B. Policies and Specifications

1. State cost-share and tax credit are authorized for measures needed to stabilize a source of sediment, such as grading, shaping, and filling, the establishment (including soil amendments such as fertilizer and lime) of grass and legumes, vehicle barriers and fencing needed to protect the established area, and other similar measures that are practical for the solution of the problem.

2. Cost-share and tax credit are also authorized for associated structural measures such as diversion, water bars, etc. only if essentially needed to protect vegetated areas from runoff related damages.

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

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

5. This practice is not intended to correct problems currently being created by an active logging operation which is not applying the required BMPs. Sites are eligible for cost-share assistance one year after timber product harvesting activities are completed.

6. Grazing livestock on established areas is prohibited.

7. Areas established should be protected from vehicle traffic. This practice is not intended for roadways that receive infrequent but regular use. All stabilized areas must have some type of vehicle barrier (cable, chain, posts, etc.).

8. This practice is subject to NRCS Standard No. 342 Critical Area Planting, 362 Diversion, and 382 Fence or Virginia's Forestry Best Management Practices for Water Quality, Technical Manual.

9. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised March, 2017

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

1. Definitions

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

2. Eligibility

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

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

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

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

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

   a. A complete copy of the nutrient management plan, containing the planner's Virginia Nutrient Management Certificate number;
   b. An invoice for planning services of the private certified planner;
   c. A completed Imported Manure Supplier Verification form (if applicable); and
   d. The acreage receiving (i) mechanically applied on-farm generated animal manure or a combination of mechanically applied on-farm generated animal manure and commercial fertilizer and (ii) the acreage receiving only commercial fertilizer and/or imported animal manure must be submitted to the District before cost share reimbursement for writing the plan can be disbursed.

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

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

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

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

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

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

b. a statement signed by the Nutrient Management Planner and producer that nutrients were applied during this period according to a NMP.

For acres that have not had a NMP written for them within the last 12 months this requirement is waived.

3. Ineligible

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

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

iii. Any amended NMP that is included as part of a Resource Management Plan that receives cost-share funds from the RMP-1 BMP may not also receive cost-share funds under the NM-1A.

This is an annual practice. The Cost-share payment will be issued annually. Applicants may reapply for NM-1A cost-share funding each year. There is no guarantee that cost-share funds will be approved by the local District.

C. Rate(s)

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

2. The cost share rate is $4.00 per acre for all eligible acres on a Tract, including crop, specialty crop, hay, or pasture fields that receive the participant's mechanically applied on-farm generated animal manure, or a combination of the participant's mechanically applied on-farm generated manure and commercial fertilizer. Any Tract that receives mechanically applied on-farm generated animal manure or a combination of mechanically applied on farm generated animal manure and commercial fertilizer during the planning period should be paid $4.00/acre for those acres that are newly planned, modified or revised. Participants must provide the District a copy of the current plan, which includes amendments

or revisions that match all management practices to be implemented in the cropping year to the District to receive the annual payment.

D. Technical Responsibility

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

Revised April 2020

Planner/Producer Statement of Nutrient Management Plan Implementation for NM-1A

Using a written or digital record keeping system, I have diligently recorded all nutrient applications to the fields in my nutrient management plan for the period (month/year) through (month/year) to the crops specified in my nutrient management plan.

_____ / /

(producer signature) (date signed)

I have reviewed application records kept by (producer name) and I hereby certify that those records have supplied sufficient information to show the producer has applied the proper materials and nutrient rates to at least 85% of the field acres as specified in the nutrient management plan covering (month/year) through (month/year).

_____ / / *NMP Cert. No.*_____

(planner signature that wrote the plan) (date signed)

<u>Imported Manure Supplier Verification</u>
(Required for NM-1A)*

_____, located at_____is the
(Name of supplier) (Address of manure location)

source of_____and can supply
(List type of manure as used in the nutrient management plan)

_____for plan years beginning
(List the total amount of manure for all plan years)

_ through_____. I understand it is my responsibility (List season/year)
(List season/year)

to apply this manure in the designated fields at the rates and times of year as stated in my

Nutrient Management Plan.

_____ (Name of Contact Person for Manure Supply)

_____(Phone Number of Contact Person for Manure Supply)

_____ _____
(Receiving farmer/participant's signature) (Date)

* (Complete this form for NM-1A, ONLY when imported manure is part of the plan recommendations.)

ASSIGNMENT OF NUTRIENT MANAGEMENT PLAN WRITING AND REVISIONS (NM-1A)
COST-SHARE PAYMENT AUTHORIZATION

I_____, do hereby direct
Name

the_____District to pay any and all cost-

share funds disbursed under the

NUTRIENT MANAGEMENT PLAN WRITING and REVISIONS (NM-1A) to

_____, of
Name

_____for
Business

services provided during development of my Nutrient Management Plan. It is further acknowledged that an

IRS form 1099 in the amount of the payment will be sent directly to the above identified contractor.

_____
Signature

_____
Date

Neither the local District nor the Virginia Department of Conservation and Recreation (DCR) is providing tax advice; the program participant may wish to consult with an independent tax advisor regarding potential tax consequences.

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

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

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

4. 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" in height.

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

7. Acres receiving a zero application rate based on a PSNT result also qualify for a payment rate of $6 per acre. This is for manure only; biosolids are not eligible for payment.

8. This is an annual practice.

C. <u>Rate(s)</u>

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

2. For participants who are not receiving payment for a sidedress application of nutrients to corn from any other source on the same acreage, a state cost share payment rate of 75% of the application charge up to a maximum amount of $6.00 per acre for the sidedress application, based on the contracted sidedress application acreage. Producers applying their own sidedress applications will receive $6.00 per acre applied.

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

D. Technical Responsibility

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

Revised May 2020

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

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

A. Description and Purpose

Late winter split application of nitrogen on small grain consists of applying nitrogen during the late winter in two increments based on the progression of growth of the small grain crop.

Applying nitrogen based on the progression of growth of the small grain crop in the late winter minimizes the amount lost through leaching and run off.

B. Policies and Specifications

1. Eligibility:
   i. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner, and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   ii. The total number of small grain acres specified by the nutrient management plan to receive split nitrogen applications will determine the maximum acres to qualify, with payment being made only to those acres which actually received split nitrogen applications.
   iii. Eligibility for this practice is limited to the length of the plan recommending the split nitrogen application.
   iv. Farmer must sign-up prior to February 1 and provide written verification (such as a work order or bill) to the district within two weeks of the second application.

2. Practice Development
   i. This cost-share practice is for the split application of late winter nitrogen applications to small grain in which each application must contain nitrogen as a component of the material applied.
   ii. On fields that have organic sources of nitrogen applied during the crop year or

in previous years, or if high residual nitrogen levels are suspected from a previous crop, fall nitrogen rates should be determined by a nitrate test.

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

3. Practice Implementation

i. To insure the impact of nitrogen to ground and surface waters is minimized in small grain production, at planting and midwinter nitrogen rates and application shall follow recommendations contained in the Virginia Nutrient Management Standards and Criteria, revised July, 2014.

ii. 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.

iii. Sample collection for any soil nitrate tests in the fall, tissue tests, or tiller counts should be done by the plan developer, an employee of the plan developer, or the farmer.

iv. 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# of nitrogen for the first application and must not exceed 50# of nitrogen for the second application.

v. v. For late winter split application of nitrogen, the two applications must be at least 30 days apart with the first application no earlier than growth stage 25, with nitrogen rates determined based on tiller counts and tissues tests as explained in the Virginia Nutrient Management Standards and Criteria revised July, 2014.

vi. This is an annual practice.

C. <u>Rate(s)</u>

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

2. For participants who are not receiving payment for a late winter split application of nitrogen on small grains from any other source on the same acreage, a state cost share payment rate of 75% of the application charge up to a maximum amount of $4.50 per acre for the second application in the late winter. If only one late winter application is made, no reimbursement is to be provided.

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

D. Technical Responsibility

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

Revised May 2020

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

A. Description and Purpose

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

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

Multiple split applications 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. Results from the test conducted to develop a nitrogen application prescription must be used to determine the nutrient application rates for the current or following crop as appropriate; that prescription must be followed during the rate of application of nitrogen.

2. At least one of the following identified components must be implemented to receive any cost-share payment for this practice.

   i. Soil (pre-sidedress) nitrate test (PSNT); Plant tissue samples or petiole samples must be submitted at the correct growth stage and handled in accordance with laboratory guidelines to ensure sample viability and usability. The results of these tests may be used by the participant to support this practice.
   ii. Variable rate nitrogen applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
   iii. Variable rate or zone application of nitrogen on row crops, specialty crops or small grains
   iv. Three or more split applications of nitrogen on small grains
   v. Two or more split sidedress applications of nitrogen on corn or cotton

vi. Two or more applications of nitrogen on highly managed hayland production systems (other than alfalfa, which is not eligible).
vii. Injection at sidedress.

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

4. All split applications will be applied at a growth stage when the plant is entering the highest demand for nitrogen. Application of any sidedress nitrogen, including the first split, must be applied after the corn is at the 5-leaf stage or at least 12" in height.

5. Subsequent sidedress applications must be applied at least 14 days after the most recent application.

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

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

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 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).

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

9. 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.

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

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

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

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

C. Rates

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

   For participants who are not receiving payment for precision application of nitrogen from any other funding source on the same acreage, a state cost share payment rate of 75% of the application charge, up to a maximum amount of $8.00 per acre per year, is available for the acres receiving the variable rate or zone application of nitrogen or multiple split applications of nitrogen on corn, cotton and small grain; or more than two applications on highly managed hayland.

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

D. Technical Responsibility

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

Revised May 2020

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

A. Description and Purpose

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

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

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

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

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

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

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

C. Rates

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

2. For participants who are not receiving payment for precision application of phosphorus from another funding source on the same acreage, a state cost share payment rate of 75% of the application charge, up to a maximum amount of $8.00 per acre, 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 May 2020

Name of Practice: Manure Injection
DCR Specification for No. NM-6

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

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

3. 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. This is an annual practice.

C. Rate(s)

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

2. For participants who are not receiving payments for manure injection from another source on the same acreage, a cost-share rate of **$45** per acre is available.

3. 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 May 2020

Name of Practice: Cover Crop for Managing Liquid or Semi-Solid Manure
DCR Specifications for No. NM-7

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's nutrient management and protective cover 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 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. 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.

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. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost share payment rate of **$25** 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 § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

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 May 2020

Name of Practice:
RESOURCE MANAGEMENT PLAN DEVELOPMENT
DCR Specifications for No. RMP-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's (DCR) Resource Management Plan development best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

The development of Resource Management Plans (RMPs) is needed to encourage the implementation of BMPs designed to improve water quality. RMPs can be developed for eligible farms throughout the state on crop, pasture, and/or hay acreage.

The purpose of this practice is to offer financial assistance to farmers and certified Resource Management Plan Developers for the development of RMPs.

B. Policies and Specifications

RMPs receiving cost-share funding for development under this practice must meet the RMP minimum standards identified in 4VAC50-70-40, contain the components outlined in 4VAC50-70-50, and be determined to be adequate by the review authority in accordance with 4VAC50-70-10 et seq. to be in compliance with this specification.

Minimum requirements shall include but not be limited to having a nutrient management plan on all acres included in the RMP. A soil loss conservation plan or pasture management plan is required. This plan is required to be written to achieve a maximum soil loss rate to "T" as defined by the Natural Resources Conservation Service (NRCS) and to include best management practices (BMPs) necessary to address gross erosion or other severely eroding conditions on all acres included in the RMP. Additionally, the RMP must include 35' wide buffers on cropland and hayland. Livestock must be excluded from perennial streams on pasture land.

1. Definitions (in addition to those set out in 4VAC50-70-10)
    i. **Cropland** means land used for the production of grain, oilseeds, silage, or industrial crops.
    ii. **Hay** means grass, legume, or other plants, such as clover or alfalfa, which is cut and dried for feed, bedding, or mulch.
    iii. **Operator** means the person or persons with actual managerial controlling interest--which may differ from the named interest--in the land management unit. A change to the Social Security Number (SSN) or Tax ID associated with the management unit may not mean a change in operator where the controlling interest is the same. For example, where a living person controls a land management unit and then subsequently an entity controlled by the same living person is named as operator, the living person remains the operator as he exerts a controlling interest in the entity and the land management unit.
    iv. **Pasture** means land that supports the growth of forages for grazing of animals.
    v. **Management unit** means one or more agricultural fields or United States

Department of Agriculture Farm Service Agency tracts under the control of the owner or operator and identified as the appropriate unit for RMP implementation. The management unit may consist of single fields, multiple fields and tracts, or an entire agricultural operation.

vi. **Review authority** means a soil and water conservation district or the department (DCR), where applicable, that is authorized to determine the adequacy of a Resource Management Plan and perform verification inspections and other authorized programmatic actions.

2. Cost-share funds received for the RMP-1 practice do not count against or otherwise affect an applicant's annual cost-share cap for other cost-shared practices.

3. Eligibility:

   i. This practice applies to crop, hay, and pasture lands that are included in an approved RMP.
   ii. Cost-share payment cannot be made until the RMP is deemed sufficient by the review authority.
   iii. To be eligible for cost-share funding, RMPs must be submitted in a format approved by DCR.
   iv. RMPs must contain the signature and certification statement of a certified RMP developer as required by 4VAC50-70-50 C.1.
   v. When an owner or operator has an RMP deemed sufficient by the review authority but does not yet have a Certificate of RMP Implementation, revision of the RMP is required when a new or modified Watershed Implementation Plan is issued for the Chesapeake Bay or a new or modified local approved TMDL is issued that assigns a load to agricultural uses.
   vi. Before cost-share payment can be made, the following items must be addressed:
      a. A complete copy of the approved RMP must be submitted to the District.
      b. An invoice for planning services provided by the certified RMP developer must be provided to the District.
   vii. RMPs must contain a current nutrient management plan and a current soil loss conservation plan or pasture management plan with a soil loss of "T" or less.
   viii. Participants may redirect their cost-share payment to their certified RMP developer by signing a written statement to that effect. A DCR assignment authorization form is attached to this specification.
   ix. An applicant may apply for a new RMP-1 on land management units which have previously received cost-share for RMP-1 when a Resource Management Plan Certificate of Implementation expires or within the 12 months prior to certificate expiration.

x. A new owner or operator who purchases or begins to farm land which has a valid Resource Management Plan and/or Certificate may be eligible for the RMP-1 practice if material changes occur that impact the operation's ability to meet minimum standards which require a revision of the RMP. Material changes include:
   a. A conversion from one type of agricultural operation to another.
   b. A change in the schedule and type of BMPs implemented.
   c. An increase or decrease in production acreage.
   d. An increase or decrease in livestock population.
   e. Any other change that the RMP developer identifies that would materially impact ability to meet RMP minimum standards.

xi. An applicant may apply for multiple RMP-1 practices either within the same cost-share program year or another cost-share program year, but the RMP-1 applications must not include the same land management units included in other RMP-1 applications.

4. In order to be eligible for cost-share, RMPs must be prepared by a developer who has been issued a current Resource Management Plan Developer Certificate by the Virginia Department of Conservation and Recreation. Resource Management Plans must be written to comply with all requirements set forth in the Resource Management Plan Regulations (4VAC50-70-10 et seq.)

5. Ineligible:
   i. RMP developers will not be paid for plans that are developed without the collaboration, support, and written affirmation of the operator. The plan must be reviewed and signed by the certified RMP Developer when developed, amended, or revised as needed to match planned crop rotations and management practices of the operator.
   ii. No cost-share payment is available for revisions to an existing RMP, unless there is a change in owner/operator in accordance with B.3.x.
   iii. No cost-share is available for a new RMP-1 if a payment has been received for a previous RMP-1 on which there has been no substantial progress towards implementation of the BMPs agreed to in the RMP as determined by the review authority.

6. If the RMP has not been deemed sufficient by the review authority by the end of the program year, the review authority may, on a case-by-case basis, extend the completion deadline (authorize carryover) into the next program year.

C. <u>Rate(s)</u>

1. The cost-share rate is $10.00 per acre for all eligible acres within a management unit.

D. <u>Technical Responsibility</u>

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE.

Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Technical responsibility for plan conformance with regulations and assurance that the plan reflects in field conditions is assigned to the Virginia Certified Resource Management Plan Developer who has prepared the RMP.

Revised April 2020

ASSIGNMENT OF RESOURCE MANAGEMENT PLAN DEVELOPMENT (RMP-1)
COST-SHARE PAYMENT AUTHORIZATION

I_____, do hereby direct
Name

the_____District to pay any and all cost-share funds disbursed under the

RESOURCE MANAGEMENT PLAN DEVELOPMENT (RMP-1) to

_, of Name

_____for
Business

services provided during development of my Resource Management Plan. It is further acknowledged that an IRS form 1099 in the amount of the payment will be sent directly to the above identified contractor.

_____
Signature

_____
Date

Neither the local District nor the Virginia Department of Conservation and Recreation (DCR) is providing tax advice; both the program participant and the contractor may wish to consult with an independent tax advisor regarding potential tax consequences.

Name of Practice:
RESOURCE MANAGEMENT PLAN IMPLEMENTATION
DCR Specifications for No. RMP-2

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's (DCR) Resource Management Plan implementation best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

The implementation of Resource Management Plans (RMPs) is needed to improve water quality. RMPs can be developed for eligible farms throughout the state on crop, pasture, and/or hay acreage. Once an RMP has been approved, verified as being fully implemented by the review authority and the owner/ operator has received a Certificate of RMP Implementation, such owner/operator is eligible for payment for this practice.

The purpose of this practice is to offer financial assistance to farmers and certified Resource Management Plan Developers for the implementation of RMPs.

B. Policies and Specifications

An owner /operator cannot receive cost-share funding, until such owner/operator has received a Certificate of RMP Implementation by meeting the requirements set out in 4VAC50-70-80 thus affirming that the RMP was determined to be adequate and that the RMP has been fully implemented.

Implementation shall be considered complete provided the owner or operator has installed the complete list of the BMPs that he agreed to implement or maintain to meet the minimum standards set out in 4VAC50-70-40.

1. Definitions (in addition to those set out in 4VAC50-70-10):
   i. **Cropland** means land used for the production of grain, oilseeds, silage, or industrial crops.
   ii. **Hay** means grass, legume, or other plants, such as clover or alfalfa, which is cut and dried for feed, bedding, or mulch.
   iii. **Pasture** means land that supports the growth of forages for grazing of animals.
   iv. **Management unit** means one or more agricultural fields or United States Department of Agriculture Farm Service Agency tracts under the control of the owner or operator and identified as the appropriate unit for RMP implementation. The management unit may consist of single fields, multiple fields and tracts, or an entire agricultural operation.
   v. **Review authority** means a soil and water conservation district or the department (DCR), where applicable, that is authorized to determine the adequacy of a Resource Management Plan and perform verification inspections and other authorized programmatic actions.

2. Cost-share funds received for the RMP-2 practice do not count against or otherwise affect an applicant's annual cost-share cap for other cost-shared practices.

3. Eligibility:
   i. Receipt of RMP-2 cost-share is not contingent upon prior receipt of RMP-1 practice cost-share that may be provided to assist with RMP development.
   ii. A cost-share payment cannot be made until the onsite verification inspection is conducted by the review authority and the review authority affirms such adequacy and implementation to DCR.
   iii. An applicant may apply for a new RMP-2 on land management units which have previously received cost-share for RMP-2 when a new RMP has been implemented and a new Certificate of RMP Implementation issued.
   iv. An applicant may apply for multiple RMP-2 practices either within the same cost-share program year or another cost-share program year, but the RMP-2 applications must not include the same land management units.

4. Ineligible:
   No cost-share payment can be made unless all BMPs in an approved RMP necessary to meet minimum standards are verified as being fully implemented by the review authority and DCR has issued a Certificate of RMP Implementation.

C. Rate(s)

1. The cost share rate is $5.00 per acre for all eligible acres within a management unit.

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.

Technical responsibility for plan conformance with regulations and assurance that the plan reflects in field conditions is assigned to the Virginia Certified Resource Management Plan Developer who has prepared the RMP.

Revised April 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's vegetative stabilization for marsh fringe areas practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A protection method for eroding tidal shoreline that establishes a fringe marsh buffer area for shoreline stabilization.

The purpose of this practice is to offer cost-share assistance to establish a natural and environmentally acceptable fringe buffer of selected marsh grasses to provide toe stabilization protection 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.

6. All maintenance operations as outlined and required in written planting plan will be at the applicant's expense.

7. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The cost-share rate will be 50 % of all necessary components needed to establish the marsh fringe. Cost-share is not eligible on sites receiving any other cost-share for this purpose. 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 § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

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

D. Technical Responsibility

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

Revised March, 2016

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's agricultural shoreline stabilization practice that 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.
   iv. For engineering and design assistance.
   v. For shorelines bordering only agricultural and forestall 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 state cost-share rate, alone or if combined with any other cost-share program, will not exceed 75% of the total eligible cost including all necessary components needed to implement shoreline stabilization.

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

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

D. Technical Responsibility

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

Revised April 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's long term vegetative cover on cropland best management practice, that are 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 hay land 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 that this practice will be implemented on. The NMP can be either a 1 year or 3 year plan that is updated to continuously cover the acreage or a 5 year grass and hay land 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 3-year cropping history.

3. This practice is not intended to be used to reseed or improve hay or pastureland.

4. Pastures and hay lands 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 spot-check 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 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 Forage and Biomass Planting.

12. All practice components implemented must be maintained for a minimum of 5 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. <u>Rate(s)</u>

The state cost-share rate is 75% of the eligible component costs, in addition to a one-time incentive payment of $25 per acre for a 5 year contract, $100 per acre for a 10 year contract, or $150 per acre for a 15 year contract.

1. Eligible components are as follows:
   i. Eligible seed
   ii. Minerals (fertilizer, lime, manure*); *If manure (litter) is purchased from off farm, a bill and nutrient analysis must be presented.
   iii. Herbicides
   iv. Pesticides
   v. Nutrient Management Planning
   vi. Labor

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

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

D. Technical Responsibility

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

Revised April 2020

Name of Practice: STRIPCROPPING SYSTEMS
DCR Specifications for No. SL-3

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

A. Description and Purpose

This practice will promote growing crops in a systematic arrangement of strips or bands across the general land slope to reduce water erosion and nutrient loss.

The purpose of this practice is to improve water quality by reducing the movement of sediment and nutrients from cultivated crop fields where other cultural and management practices alone are not adequate to reduce losses to tolerable limits.

B. Policies and Specifications

1. Cost-share and tax credit are authorized on a per acre basis to cover a portion of the cost and serve as an incentive to establish a stripcropping system. In addition, a percentage rate has been established for the extra component in those systems that require obstruction removal such as fences, stonewalls, hedgerows, or gullies.

2. Cost-share and tax credit are authorized on a percentage basis for subsurface drains needed to eliminate spot seepage on 8 percent or greater slopes if the seepage makes cross-slope tillage impractical. Subsurface drains may be the sole component if spot seepage develops and makes cross-slope tillage impractical in existing strip-cropping systems.

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 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).

4. On acreage devoted to row crops, one of the following must apply:
   i. The crop stubble or residue must be left on the land during the winter.
   ii. A winter cover crop must be established.
   iii. Adequate protective tillage operations must be performed.

5. For contour stripcropping systems, tillage and planting operations must be performed as nearly as practical on the contour.

6. Cost-share and tax credit are not authorized for repeating any approved measures under this practice with the same person on the same acreage. This is a one-time incentive.

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

8. This practice is subject to NRCS Standard 585 Contour Strip Cropping.

9. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. If subsurface drains are installed as the sole component as provided for in subparagraph 2, the strip cropping system and subsurface drains shall be maintained for at least 10 years following the calendar year in which the drains were installed. 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. An incentive rate of $30 per acre has been established for all acreage within the field. A 75 % add on cost-share rate has been established for components in those systems that require obstruction removal or subsurface drainage. Multiplying $30 per acre times the field acreage and adding 75 % of the obstruction removal and/or subsurface drainage cost will compute the final amount. The state cost-share payment, alone or when combined with any other cost-share program, will not exceed 75% of the total eligible costs.

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

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

D. Technical Responsibility

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

Revised April 2020

Name of Practice: BUFFER STRIPCROPPING
DCR Specifications for No. SL-3B

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

A. Description and Purpose

A series of narrow permanent protective strips of sod alternating with wider strips of row or close growing crops implemented to reduce erosion and surface runoff and improve surface water quality.

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 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 and tax credit are authorized for the establishment and planting of vegetated buffer strips on existing cropland fields. Tax credit is based on the cost of establishing the buffer strips.

3. Cost-share and tax credit are not authorized for repeating or adding any approved measures under this practice with the same person on the same acreage. This is a one-time incentive.

4. Cost-share and tax credit cannot be authorized for SL-3 and this SL-3B on the same acreage or for WQ-1 Grass Filter Strip.

5. Soil loss rates must be computed for all applications for use in establishing priority considerations.

6. This practice is subject to NRCS Standard 332 Contour Buffer Strips.

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

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

C. Rate(s)

1. An incentive rate of $15 per acre has been established for this practice for all field area within the buffer strip system. Cost-share payment is made on a per acre basis to cover a portion of the cost and to serve as an incentive to establish a buffer strip system. Acreage for cost-share assistance (incentive) is the field acreage or that portion of the field served by the establishment of a series of buffer strips.

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

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

D. Technical Responsibility

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

Revised March, 2018

Name of Practice: TERRACE SYSTEMS
DCR Specifications for No. SL-4

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

A. Description and Purpose

An earth embankment, channel, or a combination ridge and channel constructed across the slope.

To improve water quality by reducing slope and slope length to one that will slow the movement of sediment and nutrients from cropland.

B. Policies and Specifications

1. Cost share and tax credit are authorized for:
   i. Terraces and the necessary leveling and filling to permit installation of an effective system.
   ii. Removal of stonewalls or hedgerows if necessary to permit installation of an effective system.
   iii. Materials and installation of underground pipe outlets and other mechanical outlets.
   iv. Necessary vegetative protective outlets or waterways.
   v. Converting the present system to a new system ONLY if the present system is not serving its intended conservation purpose. Cost-share may not be authorized to maintain an existing system or if the sole purpose is that of converting because of a change in cropping patterns or equipment used by the farmer.

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

3. A protective outlet or waterway that is installed solely as an outlet for the terrace system and serves no other conservation purpose should be cost-shared as a component of this practice. A protective outlet or waterway which, by itself

solves a conservation problem, but also serves as an outlet for a terrace system, should be cost-shared under practice WP-1 or WP-3.

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

5. This practice is subject to NRCS Standard 600 Terrace.

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

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised March, 2018

Name of Practice: DIVERSIONS
DCR Specifications for No. SL-5

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

A. Description and Purpose

A channel with a supporting ridge on the lower side constructed across the general land slope.

To improve water quality by directing nutrient and sediment-laden water from large areas to sites where it can be used or disposed of safely.

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
   i. Diversions, ditches, or dikes. Subsurface drains may be installed where necessary for the proper functioning of the diversion.
   ii. Installation of structures such as pipe, chutes, underground outlets, or other outlets, if needed, for proper functioning of a ditch or dike, for more even flow, or to protect outlets from erosion.
   iii. Necessary leveling and filling to permit installation on an effective system.
   iv. Removing portions of stonewalls or hedgerows if necessary to permit establishment of the practice.

2. Cost-share and tax credit are not authorized for ditches or dikes designed to impound water for later use, or that will be a part of a regular irrigation system.

3. A protective outlet or waterway that is installed solely as an outlet for a diversion system and serves no other conservation purpose should be cost-shared as a component of this practice. A protective outlet or waterway that, by itself, solves a conservation problem but also serves as an outlet for a diversion system should be cost-shared under practice WP-1 or WP-3.

4. Cost-share and tax credit with the same person is limited to once on the same acreage.

5. Soil loss rates must be computed for all applications for use in establishing priority considerations.

6. This practice is subject to NRCS Standard 362 Diversions.

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

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised March, 2016

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

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

3. A written management plan, to include a rotational grazing component if more than three new grazing units are created by the installation of interior fencing, and operation and maintenance plans must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed in the management plan should include water sources, environmental impacts, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

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

5. To protect stream banks, state cost-share and tax credit are authorized for:
   i. Fencing to restrict stream access in connection with newly developed watering facilities. The 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.

6. To supply an alternative watering system to grazing livestock, state cost-share and tax credit are authorized for:
   i. Watering developments including:
      a. Wells, including a permanently affixed pump and pumping accessories;
         I) Districts may approve cost-share for dry wells and/or well location studies (geotechnical surveys) for the development of an alternative watering systems on a case by case basis and at the discretion of the District's Board.
         II) Pumps and equipment associated with portable and permanent watering systems. The payment for the selected pump, provision of power, and associated equipment should be the most cost effective for the specific site and application. The replacement costs of pumps and pumping equipment components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.
      b. Connection to existing water supply
      c. Development of springs, seeps, or stream pickups, including fencing of the area, where needed, to protect the development from pollution by livestock;

d. Ponds (if the only cost effective and technically feasible alternative for water source) including fencing of the area, where needed, to protect the development from pollution by livestock
e. Pumps and equipment associated with permanent watering systems.

ii. Watering facilities including:
   a. troughs,
   b. tanks/storage facilities/cisterns,
   c. hydrants

iii. Pipelines to convey water to watering facilities.

iv. Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.

v. Portable water supply system components such as troughs, pipe, etc. that are:
   a. Commercially available or farmer constructed,
   b. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,
   c. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and
   d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

7. To establish pasture management through rotational grazing, state cost-share and tax credit are authorized for:

   i. Interior fencing and watering facilities that distribute grazing to improve water quality, when combined with the livestock exclusion component of this practice on an adjacent stream or sensitive feature. Consideration must be given, in such cases, to the additional management requirements of such systems.

   ii. When more than three new grazing units are created by the installation of interior cross fencing, a written grazing management plan must be prepared and implemented. Input from the participant during the development of the plan is required.

8. 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.

9. 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.

10. 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

11. No state cost-share and tax credit is authorized under the practice for any installation that is:
    i. PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.
    ii. To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.
    iii. For boundary fencing or water supply systems used to establish new pastures not currently in use.
    iv. For interior fencing and watering facilities to distribute grazing in fields not receiving exclusion fence. (Applicant may apply for SL-7).
    v. For the purpose of providing water for the farm or ranch headquarters

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

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

14. 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.

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

C. Rate(s)

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

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

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.
3. If a participant receives cost-share 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 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

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

3. A written management plan, to include a rotational grazing component if more than three new grazing units are created by the installation of interior fencing, and operation and maintenance plans must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed in the management plan should include water sources, environmental impacts, runoff from the feeding pad area, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

4. The buffer must be maintained as perennial species for the practice lifespan. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. If at any time during practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
   i. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

5. To protect stream banks, state cost-share and tax credit are authorized for:
   i. Fencing to restrict stream access in connection with newly developed watering facilities. The 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.

6. To supply an alternative watering system to grazing livestock, state cost-share and tax credit are authorized for:
   i. Watering developments including:
      a. Wells, including a permanently affixed pump and pumping accessories;
         I) Districts may approve cost-share for dry wells and/or well location studies (geotechnical surveys) for the development of an alternative watering systems on a case by case basis and at the discretion of the District's Board.
         II) Pumps and equipment associated with portable and permanent watering systems. The payment for the selected pump, provision of power, and associated equipment should be the most cost effective for the specific site and application. The replacement costs of pumps and pumping equipment components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant.
      b. Connection to existing water supply;

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

ii. Watering facilities including:
   a. troughs,
   b. tanks/storage facilities/cisterns,
   c. hydrants

iii. Pipelines to convey water to watering facilities.

iv. Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.

v. Portable water supply system components such as troughs, pipe, etc. that are:
   a. Commercially available or farmer constructed,
   b. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,
   c. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and
   d. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

7. To establish pasture management through rotational grazing, state cost-share and tax credit are authorized for:

   i. Interior fencing and watering facilities that distribute grazing to improve water quality, when combined with the livestock exclusion component of this practice on an adjacent stream or sensitive feature. Consideration must be given, in such cases, to the additional management requirements of such systems.

   ii. When more than three new grazing units are created by the installation of interior cross fencing, a written grazing management plan must be prepared and implemented. Input from the participant during the development of the plan is required.

8. 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.

9. 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.

10. 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.

11. No state cost-share and tax credit is authorized under the practice for any installation that is:
    i. PRIMARILY for wildlife, dry lot feeding, barn lots, or barns.
    ii. To make it possible to graze crop residues, field borders, or temporary or supplemental pasture crops.
    iii. For boundary fencing or water supply systems used to establish new pastures not currently in use.
    iv. For interior fencing and watering facilities to distribute grazing in fields not receiving exclusion fence. (Applicant may apply for SL-7).
    v. For the purpose of providing water for the farm or ranch headquarters.

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

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

14. 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.

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

C. Rate(s)

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

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

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

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

3. If a participant receives cost-share 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 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. All fields that receive cost share under this practice must have had all livestock previously excluded or concurrently being excluded with a minimum 10 foot setback from all live streams or live water. Any field that is part of a rotational grazing system is eligible.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

C. <u>Rate(s)</u>

1. Fields that have had livestock completely excluded from all live streams or live water at a minimum of 35 feet will receive 75% cost-share on eligible components. Fields which have had livestock completely excluded at less than 35 feet, but at a minimum of 10 feet, shall receive 50% cost-share on eligible components.

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

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

D. Technical Responsibility

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

Revised April 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's protective cover for specialty crops best management practice that 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 specialty cropland and thereby reduce wind and water erosion, thus improving water quality.

B. Policies and Specifications

1. Eligibility
Specialty crops are given consideration due to bare sites and highly erodible soil conditions. Specialty crops for this practice are defined as:
   i) Vegetables
   ii) Tobacco
   iii) Small grains

2. Soil loss rates must be computed for all applications for use in establishing priority considerations.

3. 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.

4. A good stand and good growth of cover must be obtained in sufficient time to protect the area. The seeding must be planted and certified by November 30. 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.

5. Pasturing consistent with good management may be permitted. No vegetative growth may be harvested for hay or seed.

6. 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 *Brassica* (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.

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

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of $30 per acre is available.

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

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 May 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation'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:
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. 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. 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.

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

4. 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 1 year post completion of this practice.

5. Payment is provided as a variable rate per acre incentive payment to encourage

proper establishment and to offset a portion of the cost of seed and the seeding operation.

6. The seeding must be planted and 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% 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.

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 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).

8. Manure application may be made in accordance with the nutrient management plan prepared by a Virginia certified nutrient management planner.

9. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained. In years of drought if producers anticipates a need for additional feed harvest, they should apply for the SL-8H practice as harvest is not allowed under this practice.

10. The cover crop shall not be harvested for seed/grain.

11. 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 *Brassica* (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 *Brassica* (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.

12. 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.

13. 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. For participants who are not receiving payment for cover crops from another source on the same acreage, a one-time state cost-share payment rate 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	Rate
60-89 Days	$15.00/Acre
90-119 Days	$20.00/Acre
120+ Days	$25.00/Acre

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

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 May 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's small grain cover crop for nutrient management and residue management best management practice that 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 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 1 to protect the area from nutrient leaching and runoff in the fall and winter, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice. (Ongoing research in Virginia's coastal plain indicates that a cereal grain

crop with 30 plants per square foot of field planted with two tillers per plant (60 tillers per sq. ft.) by December 1 provides the optimum biomass for scavenging excess nitrogen while protecting the soil from erosion)

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 cover crops environmental benefit in Virginia. The SL-8B is not intended to subsidize crops produced for commodity purposes.

8. Harvesting for hay, haylage, silage, grain, straw or seed is not permitted. Pasturing consistent with sound agronomic management is permitted as long as a 60% cover is maintained through March 14. **In years of drought if producers anticipate a need for additional feed harvest, they should apply for the SL-8H practice as harvest is not allowed under this practice.**

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

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

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch
°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

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

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

Area	Early Planting Date	Standard Planting Date
Cities of Chesapeake & VA Beach	November 10	November 30
Coastal Plain (including the Eastern Shore)	October 25	November 15
Piedmont	October 10	November 1
Mountain and Valley	October 5	October 25

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

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

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost share payment rate of **$20** per acre is available. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre.

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

3. 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 1 and maintained through March 14, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates.

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

   i. The following list of rye cultivars are approved for the **$10**/acre bonus payment.

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

   ii. OR, any other indeterminate growth tetraploid rye cultivar

D. Technical Responsibility

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

Revised May 2020

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

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

A. Description and Purpose

Cost-share or tax credits are provided for the establishment of vegetative cover on cropland for protection from raindrop and wind erosion and the reduction of nutrient losses to groundwater. Alternatively, participants certifying that they do not intend to utilize any available tax credits may be eligible for cost-share funds. This cover crop may be harvested after the requirements of this specification have been met.

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

B. Policies and Specifications

1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.

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

3. No nutrients from any sources are allowed between the harvesting of the previous crop and March 1 of the next calendar year, except that use of manure (with less than 40 lbs N. per acre tested value) on up to 300 acres is permitted if all of the following conditions are met:
   i. Animals are raised as part of the applicants operation,
   ii. Inadequate manure storage is available for the winter,
   iii. There are no other vegetated acres available to safely utilize the manure, and;

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 1 to protect the area from nutrient leaching and runoff in the fall and winter, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice. (Ongoing research in Virginia's coastal plain indicates that a cereal grain crop with 30 plants per square foot of field planted with two tillers per plant (60 tillers per sq. ft.) by December 1 provides the optimum biomass for scavenging excess nitrogen while protecting the soil from erosion.)

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 cover crops environmental benefit in Virginia. The SL-8H is designed to provide an incentive to farmers to provide year round vegetative cover on as much acreage as possible; it is not intended to subsidize winter crops produced for commodity purposes.

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.

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 *Brassica* (canola/rape)	5 -7 lbs./acre°
mixture with annual rye grass	10 lbs./acre

† legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch
°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings.

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

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

Area	Planting Date
Cities of Chesapeake & VA Beach	November 10
Coastal Plain (including the Eastern Shore)	October 25
Piedmont	October 10
Mountain and Valley	October 5

12. Seeding rates shall be adjusted based on germination rates.

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

14. The cover crop residue may be left on the field for conservation purposes; or the cover crop or its residue may be tilled under; or the cover crop may be harvested after March 14.

C. Rate(s)

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of $20 per acre is available. Districts should not issue cost-share funds if a good stand and good growth of winter cover is not obtained before December 1 and maintained through March 14, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates.

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

3. The cost of fertilizer may not be considered when calculating the participant's tax credit. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre.

D. Technical Responsibility

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

Revised May 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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.

1. 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.

2. Locate infrastructure to facilitate grazing management and manure distribution.
   i. Manage the type and number of livestock, 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 ≥ 60% year round and pasture stand density to increase rainfall infiltration and decrease runoff from pasture lands 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 moving 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. 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 Forage and Biomass Planting. Replanting will be at the participant's expense.

3. 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.

4. Pastures not meeting minimum 60% year round cover criteria should be replanted in accordance to NRCS Standard 512 Forage and Biomass Planting.

5. 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.

6. The NRCS Pasture Condition Score will be used to establish a bench-mark 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.

7. State cost share and tax credit will be provided only one time per field.

8. Fields utilizing this practice must not have a NRCS 528 Prescribed Grazing contract on the same fields.

9. This practice is subject to the requirements of NRCS standards, 382 Fence, 314 Brush Management, 512 Forage and Biomass Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection and 614 Watering Facilities, and 595 Pest Management.

10. 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 January 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 and/or tax credit funds.

C. Rate(s)

The cost-share 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 2020

TABLE 1

United States Department of Agriculture
Natural Resources Conservation Service

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

[1]Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.
[2]Grazing 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: PERMANENT VEGETATIVE COVER ON CRITICAL AREAS
DCR Specifications for No. SL-11

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

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

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

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

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

6. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice

is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised April 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's high residue minimal soil disturbance system best management practice that 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 and 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.

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 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).

4. State cost-share 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 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

2 For participants who are not receiving payment for a continuous no-till system from any other source on the same acreage, the state cost-share 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 May 2020

Name of Practice: CONTINUOUS NO-TILL FORAGE PRODUCTION SYSTEM
DCR Specifications for No. SL-15B

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's continuous no-till forage production system best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

To expand implementation of continuous no-till 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.

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 planting techniques.

B. Policies and Specifications

1. All crops must be planted using no-till methods.

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

3. 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.

4. All eligible fields must have a cropping history two out of the past five years. Permanent grass or hay land is not considered cropland.

5. Cropping rotations that involve the removal of residue are eligible. 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 thirty (30) days of harvest, grazing or removal of biomass. Participants may receive payments for the Cover Crop practices and the Continuous No-till Forage Production System simultaneously so long as all practice specifications have been met.

6. Cover crops are strongly encouraged throughout the life of the contract. 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.

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 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).

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

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

10. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

2. 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. For participants who are not receiving payment for a continuous no-till forage production system from any other source on the same acreage, the state cost-share 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 May 2020

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's sediment retention, erosion, or water control structures best management practice, which are applicable to all contracts entered into with respect to that practice

A. Description and Purpose

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

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

B. Policies and Specifications

1. Cost-share and tax credit are authorized:
   i. For sediment detention or retention structures, such as erosion control dams (excluding water storage dams), desilting reservoirs, sediment basin, debris basins, or similar structures.
   ii. For channel linings, chutes, drop spillways, and pipe drops that better manage excess water.
   iii. For fencing or otherwise protecting a vegetative cover (including mulching needed to protect the structure) and for leveling and filling to permit the installation of the structure.
   iv. For installing sediment retention structures on public roadsides only where these structures are essential to solve a farm-based pollution or conservation problem.
   v. Only if the measures will contribute significantly to maintaining or improving soil or water quality.

2. Cost-share or tax credit is not authorized for irrigation structures that are part of a distribution system for irrigation water.

3. Consideration should be given to the needs of wildlife when establishing the protective measures.

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

5. Direct discharge of runoff from crop fields, without filtering, is not allowed under this specification. A 10' minimum grass filter must be provided at the pipe inlet in the form of an apron adjacent to the pipe or a permanently vegetated diversion or waterway.

6. This practice is subject to the specifications of NRCS Standards 350 Sediment Basin, 362 Diversion, 382 Fence, 410 Grade Stabilization Structure, 468 Lined Waterway or Outlet, 606-Subsurface Drain, 620-Underground Outlet, and 638 Water and Sediment Control Basin. When a subsurface drain is used in conjunction with this practice, a wetlands determination shall be performed prior to installation.

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

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised March, 2018

Name of Practice: STREAMBANK STABILIZATION
DCR Specifications for NO. WP-2A

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's streambank stabilization best management practice, that 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 nonpoint sources.

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

B. Policies and Specifications

1. Cost-share and tax 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. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to 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 forestall lands. Other lands such as recreational, urban and built-up or residential lots are not eligible.
   v. 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.
   vi. 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.

2. Consideration must be given to wildlife and environmental issues when designing the practice.

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

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

5. This practice is subject to NRCS standards if utilized on a site specific basis: 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.

6. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised March, 2016

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
   - i. Permanent fencing to protect streambanks from damage by domestic livestock. Cost-share may be authorized for fencing as a single eligible component that stands alone as a measure that will significantly improve water quality.
   - ii. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to the water. The installation of livestock crossings and controlled hardened accesses is limited to small streams. When required, permits must be obtained by the applicant from authorities before the practice will be approved.
   - iii. Fencing may be authorized as a single eligible component only if all of the following apply:
     - (a.) The 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. Note: For stream protection projects with a buffer of 35 feet or greater, please use WP-2W.
     - (b.) Wetlands, intermittent springs, seeps and gullies adjacent to streams should be included in the buffer area. Isolated seeps, springs or wetlands may be fenced as well.
     - (c.) There is adequate natural or planted vegetation between the fence and the stream to serve as an effective filter strip to improve water quality.

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

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

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

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

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

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

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

9. All practice components implemented must be maintained for a minimum of either 5 years or 10 years, as indicated in the table below, following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

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

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

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

D. Technical Responsibility

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

Revised April 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
   - i. Permanent fencing to protect streambanks from damage by domestic livestock. Cost-share may be authorized for fencing as a single eligible component that stands alone as a measure that will significantly improve water quality.
   - ii. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to the water. The installation of livestock crossings and controlled hardened accesses is limited to small streams. When required, permits must be obtained by the applicant from authorities before the practice will be approved.
   - iii. Fencing may be authorized as a single eligible component only if all of the following apply:
     - (a.) The minimum fence setback from the stream must be at least 35 feet, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.
     - (b.) Wetlands, intermittent springs, seeps and gullies adjacent to streams should be included in the buffer area. Isolated seeps, springs or wetlands may be fenced as well.
     - (c.) There is adequate natural or planted vegetation between the fence and the stream to serve as an effective filter strip to improve water quality.

2. The buffer must be maintained as perennial species for the practice lifespan. Grazing (including flash grazing) and haying are not allowed in the protected riparian area during the lifespan of this practice. If at any time during practice lifespan the participant is found to be grazing (including flash grazing) their livestock in the buffer, as documented by photographic evidence, the District shall require the repayment of the entire buffer payment (i.e. non-prorated).
    i. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

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

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

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

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

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

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

9. All practice components implemented must be maintained for a minimum of either 5 years or 10 years, as indicated in the table below, following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

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

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

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

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

D. Technical Responsibility

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

Revised April 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

2. Cost-share is also authorized for permanent fencing, subsurface drains or stone lined centers that are necessary for proper functioning of the waterways. If cost-share is provided for permanent fencing, livestock exclusion is required through the lifespan of the practice.

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

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

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

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

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

8. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting

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

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised April 2020

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

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

A. Description and Purpose

A planned system designed to manage liquid and/or solid waste from areas where livestock and poultry are concentrated. 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.

To improve water quality by storing and spreading waste at the proper time, rate and location, and/or to control erosion and nutrient input caused by feeding operations located adjacent to riparian areas or other environmentally sensitive feature(s).

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, except poultry operations, must have a "Risk Assessment for Water Quality Impairment from heavy Use Areas/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.

must be excluded from all streams in the tract before cost share or tax credit is provided.

iii. Poultry Dry-Stack facilities should only be built after the completion of a Poultry Dry-Stack Needs Determination Worksheet. An analysis of the Needs Determination Worksheet must determine that all other means of reducing the environmental impact of the existing poultry operation have been explored and rejected due to economic inefficiency or lack of space for relocation.

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

v. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by the DCR agricultural BMP.

3. Cost-share and tax credit is authorized:

i. 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.

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.

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

iii. 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.

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

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

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

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

vi. Cost share funds are authorized 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.

vii. 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 measures primarily for the prevention or abatement of air pollution unless the measures also have soil and water conserving benefits.

ii. For:

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.

iii. For animal waste facilities that do not meet local or state regulations.

iv. For installation primarily for the operator's convenience.

v. Dairy, beef, poultry and swine confined feeding operations that are planned or under construction do not qualify for cost-share assistance for an Animal Waste Control Structure (WP-4) under the Virginia Agricultural BMP Cost-Share Program. 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.

vi. 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 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 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 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).

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 state cost-share payment, alone or if combined with any other cost-share payment, will not exceed 75% of the total eligible cost.

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

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

D. Technical Responsibility

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.

Animal Waste Control Facility Needs Determination Worksheet
for Poultry Dry-Stack Facilities

1. What type of poultry operation do you have?

2. How long have you been in operation?

3. Have you expanded or enlarged your poultry 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 litter 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 birds per flock do you normally produce? Their size, type, etc.

6. How many flocks per year do you normally produce?

7. How often do you clean out in a year's period? When and how is the litter used and/or stored? Also give the number of partial and total clean outs.

8. What use do you make of the litter produced?

9. Is any waste disposed of off your farm? If so, is it sold or bartered for commercial gain? Explain.

10. How much pasture, hayland and cropland are available to spread litter on in your operation?

    Pasture acres _ Hay acres _ Cropland _

    Completed by: _ _____

    _____
    Signature Date Title

Dry Manure Storage Structure Agreement

1. The Waste Storage Structure or winter-feeding facility must be utilized in accordance with a Nutrient Management prepared and certified by a Virginia certified nutrient management planner and, if needed, a transfer plan prepared by a Virginia certified nutrient management planner for any livestock or poultry waste. The Plan identifies specific requirements related to waste storage, utilization and disposal. These requirements must be met in order to remain in program compliance.

2. Any changes in the farming operation that affect the ability to comply with the Nutrient Management or transfer plan will be reported to the District.

3. No alterations to the structure are allowed without prior approval by the District. The structure must be built according to the approved final design and no change may be made to it.

4. The structure must be maintained in strict accordance with the NRCS maintenance guidelines.

5. The District imposes that (District check one of the following):
   i. The structure is to be used for storage of manure only.
   ii. The applicant must request prior district approval for storage of non-manure items. .
   iii. During times when the structure is not filled with manure, shavings or temporary housing of mobile farm equipment or composted poultry carcasses resulting from normal mortality is permitted. This is only if it does not affect compliance with the Nutrient Management or transfer plan.

   At NO TIME will manure be stored outside the facility when storage space is available in the structure. Waste stored out-of-doors will be grounds for the refund of all cost-share funds.

6. Employees or agents of the Department or the Soil and Water Conservation District will be allowed to spot-check the facility at any time during the minimum 15-year lifespan of the practice.

I certify that I have read and understand the guidelines contained herein. I further understand that if I fail to comply with these guidelines, I will pay back all cost-share funds received by me for the waste storage structure.

_____ _____
Producer Signature Date

_____ _____
District Director Date

DCR199-86 (04/19) Revised April 2020

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

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

A. Purpose and Description

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

The intent of this practice is to prevent manure and sediment runoff from entering watercourses and sensitive karst areas and to capture a portion of the manure as a resource for other uses such as crop fertilizer. This is accomplished by dividing the area into lots. The dairy cattle are rotated from lot to lot as is necessary to maintain a vegetative cover. One lot is designated as a sacrifice area for use in periods of wet weather. This practice is for dairy cattle only.

B. Policies and Specifications

1. A management plan and practice design is to be developed with consultation from a qualified consultant, VCE, NRCS and/or District.

2. A minimum of three grassed loafing paddocks are required. Each grassed loafing paddock will be sized based on soil type, topography and herd size not to exceed a stocking rate of twenty (1,000 lb. EAU) cattle 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-ft. buffer must be maintained.

4. Concrete walkway(s) with curbing or other hardened walkway(s) (crusher run is not an acceptable surface material) may be installed to facilitate herd movement from the barn to the loafing lots. Slope is to be no greater than 8%. See VCE publication on installing dairy lanes.

5. A sacrifice area is required unless adequate housing facilities are available (e.g. free stall barns).
   i. Sacrifice area (if needed) must be scraped periodically.
   ii. The sacrifice area should not be sized to exceed 600 to 650 square feet per animal (1,000-lb. equivalent). It should be sloped between 1% minimum to 8% maximum.
   iii. Divert surface water away from the sacrifice area.

iv. Provide filter strip per NRCS standard 393 to filter runoff from the sacrifice area.

6. In order for the forage to take up nutrients such as nitrogen it must be managed for growth and harvested for hay when possible. Dry cows or other grazers can be used to remove forage growth.

7. Critical eroding and sensitive areas will be fenced out and permanent cover established.

8. If a sacrifice lot is impractical due soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot.

   i. All other potential more cost-effective approaches to reducing the water quality impact from the unimproved loafing lot must have been explored and rejected, due to economic inefficiency or lack of space for relocation, before cost-share or tax credit can be approved for constructing a loose housing structure.
   ii. Cost share funding for a loose housing structure will only be authorized if a "Risk Assessment for Water Impairment from Concentrated/Feeding/Loafing* Livestock Areas" has been completed and a score of 120 or greater has been obtained.
   iii. General Design guidelines for Loose Housing Structures

      a) Bedded pack space requirements:
         1) 60 sq. ft. per heifer minimum
         2) 100 sq. ft. per lactating cow minimum
         3) 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 PE 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 for land application or a planned waste management system for any other uses of manure produced. The nutrient management plan should address all the acreage, which the participant farms where manure from the loafing lot system will be applied. The nutrient management plan should be implemented and maintained for the life of the practice. Design 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.

10. Cost-Share is authorized for watering facilities in the loafing lots.

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

12. 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, 516 Livestock Pipeline, 533 Pumping Plant, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 580 Stream bank and Shoreline Protection, 614 Watering Facility, 632 Solid Liquid Separation Facility, 633 Waste Recycling, 634 Waste Transfer, and 642 Water Well.

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

C. Rate(s)

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

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

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 2020

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

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

A. Description and Purpose

A planned system designed to manage the treatment and disposal of poultry 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 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 poultry and swine mortality carcasses.

   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, which are land applied. 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).

2. Expenses are authorized for:
   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.

3. 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. Cost-share is not authorized 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.

4. All appropriate local and state permits must be obtained before cost-share payments are authorized.

5. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management

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

6. 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.

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

C. Rate(s)

1. The state cost-share payment, alone or if combined with any other cost-share payment, will not exceed 75% of the total eligible cost of poultry and swine composting facilities only.

2. The Tax Credit rate is 25% of the total eligible cost of swine or poultry composting facilities not to exceed $17,500.00. 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 2020

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

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

A. Description and Purpose

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 nonpoint source contamination of state waters if a nutrient management plan is not required for that residual.

4. Expenses are authorized for:

   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 structures 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 used to load, and unload the residuals from incineration.

5. Expenses are not authorized for:
   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. Permit compliance. 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 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).

8. Practice Standards. 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 .

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

C. Rate(s)

1. The state cost-share payment, alone or if combined with any other cost-share payment, will not exceed 75% of the total eligible cost of the animal mortality incinerator facility only.

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

3. If 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.

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 2020

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

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

A. Description and Purpose

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

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. 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 SF per animal unit. Cost-share funds cannot be used to accommodate expansion of the herd size.
    iii. 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.
    iv. 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.

v. A nutrient management plan is required to properly manage the manure collected from around the feeding pad that addresses all enriched runoff and manure accumulations associated with the feeding pad.

3. 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.

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

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

6. This practice is subject to NRCS standards 342 Critical Area Planting, 362 Diversion, and 561 Heavy Use Protection.

7. 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. <u>Rate(s)</u>

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

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

D. Technical Responsibility

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

Created April 2020

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

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

A. Description and Purpose

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

A covered facility that requires 100% confinement of livestock which includes a feeding area as well as a bedded or manure pack area with a manure storage area if needed. Permanent removal of livestock from all acres associated with the confined livestock is required. All associated acres must be re-vegetated. This practice is not intended for grazing operations.

B. Policies and Specifications

1. Eligibility: Cost-share and tax credit are limited to solving the pollution problems where the livestock operation can show they have either:
    i. Access to land for application and where a full farm plan approach to solving the water quality problem is being carried out.
    ii. A current Nutrient Management Plan that has been certified by a Virginia certified nutrient management planner and, if needed, a transfer plan prepared by a certified nutrient management planner for any livestock.

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

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

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

iv. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by the DCR agricultural BMP engineer.

v. The confinement structure shall be managed as 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 4' high to contain bedded pack.
- Manure storage for bedded pack area is not authorized, but storage for manure captured from feedlanes 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 qualify. 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.

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 SF 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 and
    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 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 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.

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

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

9. This practice is subject to NRCS standards 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 412 Grassed Waterway, 558 Roof Run Off Structure, 561 Heavy Use Protection, 620 Underground Outlet, 633 Waste Recycling and 634 Waste Transfer.

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

C. Rate(s)

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

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

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard,

with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Created April 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. Eligibility: Cost-share and tax credit are limited to solving the pollution problems where the livestock operation can show they have either:
    i. Access to land for application and where a full farm plan approach to solving the water quality problem is being carried out.
    ii. A current Nutrient Management Plan that has been certified by a Virginia certified nutrient management planner and, if needed, a transfer plan prepared by a certified nutrient management planner for any livestock.

2. Practice Development
    i. Before cost-share or tax credit can be approved all other means of reducing the environmental impacts of animal waste from the existing operation must be considered. Lack of space for relocation, economic inefficiency or other factors may be considered. A "Risk Assessment for Water Quality Impairment from heavy Use Areas/Animal Concentrated Areas" must be completed and a minimum score of 120 is required in order to be eligible.
    ii. The applicant is also required to sign a Dry Manure Storage Structure Agreement DCR199-86 (03/18) or similar District agreement which addresses the minimum criteria prior to receiving any funds.

iii. 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 strip 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’ 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 qualify. 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.
    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. For 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 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 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.

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

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

planner. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

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, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Protection, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 620 Underground Outlet, 633 Waste Recycling, 634 Waste Transfer, 642 Water Well.

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

C. Rates

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

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

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

D. Technical Responsibility

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

Name of Practice: SEASONAL FEEDING FACILITY WITH ATTACHED MANURE STORAGE
DCR Specifications for No. WP-4SF

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. Eligibility: Cost-share and tax credit are limited to solving the pollution problems where the livestock operation can show they have either:
    i. Access to land for application and where a full farm plan approach to solving the water quality problem is being carried out.
    ii. A current Nutrient Management Plan that has been certified by a Virginia certified nutrient management planner and, if needed, a transfer plan prepared by a certified nutrient management planner for any livestock.

2. Practice Development
    i. Before cost-share or tax credit can be approved all other means of reducing the environmental impacts of animal waste from the existing operation must be considered. Lack of space for relocation, economic inefficiency or other factors may be considered. A "Risk Assessment for Water Quality Impairment from heavy Use Areas/Animal Concentrated Areas" must be completed and a minimum score of 120 is required in order to be eligible.
    ii. The applicant is also required to sign a Dry Manure Storage Structure Agreement DCR199-86 (03/18) or similar District agreement which addresses the minimum criteria prior to receiving any funds.
    iii. Determination of the storage capacity of animal waste facilities shall be reviewed and approved by the DCR agricultural BMP engineer.

iv. Feeding area shall be sized on the current herd size and planned feeding method, not to exceed 50 SF per animal unit.

3. Cost-share and tax credit is authorized for:
    i. Feeding area.
    ii. A dry stack manure storage area sized for up to six (6) months of manure production.
    iii. Roofs over the feeding area and manure storage area and roof runoff system.
    iv. For 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. 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. For 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. Before cost-share or tax credits are provided, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field that this practice will be implemented on and all associated livestock production acreage. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4VAC50-85 et seq.) and the Virginia Nutrient Management Standards and Criteria (revised July 2014), must be prepared and certified by a Virginia certified nutrient management planner. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

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. Policies and Specifications

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

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

D. Technical Responsibility

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

Created April 2020

Name of Practice: AGRICULTURAL CHEMICAL & FERTILIZER HANDLING FACILITY
DCR Specifications for No. WP-6

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

A. Description and Purpose

This practice will promote facilities to adequately store, mix and contain agricultural chemicals and fertilizers.

The purpose of this practice is to improve water quality by properly handling chemicals and fertilizers during mixing equipment.

B. Policies and Specifications

1. Cost-share or tax credit is authorized:
   i. For earth shaping to provide area for facility.
   ii. For the construction of a facility adequate to contain mixing and handling of chemicals and fertilizers for on farm use.
   iii. Equipment needed to contain chemical and/or fertilizer spills during mixing and handling in the facility.

2. Tax Credit is not authorized for pumping and handling equipment that may be used in the application of chemicals and fertilizers.

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 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).

4. An emergency action plan must be developed prior to the approval of the tax credit.

5. This practice is subject to the specifications of NRCS Standard 309 Agrichemical Handling Facility.

6. All practice components implemented must be maintained for a minimum of 10 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 throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised April 2020

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field 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. Filter strips planned for sediment and related pollutant control are subject to the following state specifications. Grass filter strips shall be designed and installed to filter sheet flow, rather than concentrated flow. If concentrated flow will occur, land smoothing or the use of some other BMP or combination of BMPs may be required (such as grassed waterways and structures for water control).

Filters must be a minimum 35' in width. The maximum filter width eligible for cost-share payment and tax credit is 100', except for wider segments of a contoured filter where the contour is typically 35' to 100' wide.

3. Filters must be located within 100-feet of a live or intermittent waterway, open sinkhole, abandoned well or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. An intermittent waterway is considered as being, but not limited to, any channel or flood prone area where periodic water flow or storage is diverted by surface drainage. Grass filter strips may be installed along intermittent waterways where judged appropriate and feasible by the local technical authority.

   All trees, stumps, brush, rocks and similar materials that may interfere with installing the filter strip should be removed. The materials should be disposed of in a manner that will not degrade the quality of the environment or interfere with the proper functioning of the filter strip.

4. No-till planting is preferable. If grading is necessary, conventional equipment can be used for preparing the seedbed, fertilizing and maintenance.

5. Lime and fertilize according to soil test to assure proper establishment. Established filter strips shall not receive any applications of nitrogen or phosphorus.

6. Hayland is considered cropland if it is in rotation with row crops during the 5-year life span of the grass filter strip.

7. Soil loss rates must be computed for all applications.

8. State cost-share and tax credit will be provided only one time per filter strip, while that land is under the same ownership.

9. Select an appropriate planting mix for filtering runoff and protecting water quality from the NRCS Plant Establishment Guide for Virginia.

10. Maintenance
    i. In cropland, a vegetative filter strip should be maintained on each side of the watercourse.
    ii. Protect the filter strip from damage by livestock.
    iii. Do not use as a roadway.
    iv. Avoid operations that leave tillage or wheel marks.
    v. Woody stems should not be allowed to exceed 2 inches in diameter.
    vi. Avoid damaging filter area with herbicides.

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

11. Filter strips planned for runoff from concentrated livestock areas or controlled overland flows for the treatment of liquid wastes are subject to NRCS Specification 393 Filter Strip. This practices subject to NRCS Standards 393 Filter Strip, 466 Land Smoothing, 572 Spoil Spreading and Leveling.

12. All practice components including the vegetative cover implemented must be maintained for a minimum of 5 years following the calendar year of certification of completion. Cost-Share and tax credit must be refunded if the operator destroys the cover during this time. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. By accepting either a cost-share payment or a state tax credit for this practice the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the District throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

1. The state cost-share payment alone or when combined with any other cost-share program will not exceed 75% of the total eligible cost, or a maximum of $100/acre for 35' to 100' wide filter strips. WQ-1 installed on permanent hayland in accordance with an RMP is eligible for $100/acre.

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

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

D. Technical Responsibility

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

Revised April 2019

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

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

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

a. Determine the length (ft.) and width (ft) for calculating the area (acres) of the filter strip. Acres will be the extent technically authorized.

b. Using RUSLE2, determine soil loss occurring in the field. Place this erosion rate in under the Sheet and Rill (tons/ac/yr) erosion reduction field in the Tracking Program

Step 2: Determine trapping efficiency of the filter area.

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

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

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

Area x Erosion Rate x SDR = Delivered Sediment Load

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

Sediment Load x Trapping Coefficient = Sediment Trapped

Use one of the following coefficients for your calculations:

Strip Width	Coefficient
35'	0.35
50'	0.50
100'	0.75

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

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

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

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

Step 2: Trapping efficiency

a. Delivered Sediment

$$\frac{\text{Length of filter strip (1,000) x Length of Slope (250)}}{43{,}560}$$

$$\frac{1{,}000 \times 250}{43{,}560} = 5.7 \text{ acres of contributing field}$$

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

5.7 x 6 x 0.5 = Delivered Sediment Load of 17.1

b. Trapping coefficient

Sediment Load (17.1) x Trapping Coefficient (0.5) = 8.55

Round 8.55 up to 9 and place under Gross Erosion Reduction.

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's legume cover crop best management practice that 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 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 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 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 N 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	

Vetch is not recommended in rotations containing small grains. It is very important that seeding dates be met to insure 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 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** and place in the participants' 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. <u>Rate(s)</u>

1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of $30 per acre is available.

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

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 May 2020

Nitrogen Reduction Form for WQ-4 Certification

District Name: _____

Printed Applicants Name:_____

Applicants Address: _____

Nitrogen Reduction

Fields	Acreage	(lbs/ac)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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)

Name of Practice: WATER TABLE CONTROL STRUCTURES
DCR Specifications for No. WQ-5

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

A. Description and Purpose

A water control structure for the management of drainage water designed to regulate and manage drainage water to improve water quality by trapping sediment and managing dissolved or suspended nutrients.

B. Policies and Specifications

1. Cost-share and tax credit are authorized for the construction or purchase and installation of a water control device within a drainage system which will regulate the water level for nutrient uptake by plants and allow for denitrification by natural factors.

2. Control structures must meet all engineering requirements for drainage.

3. Cost-share is not authorized where the main purpose is sub-irrigation. The intent is for effective nutrient management by controlling water levels for specific site conditions throughout the year.

4. Soil loss rates do not need to be computed for this practice. Effectiveness is based on drainage area above the structure and the nutrient reduction achieved.

5. This practice is subject to NRCS Standard 587 Structure for Water Control.

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

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: AGRICULTURAL SINKHOLE PROTECTION
DCR Specifications for No. WQ-11

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

A. Description and Purpose

This practice will provide a protection method to improve groundwater quality from surface contamination.

The purpose of this practice is to improve water quality by removing sources of pollution from sinkholes and providing an adequate buffer to trap and filter sediments and nutrients from surface flows that enter the groundwater through sinkholes.

B. Policies and Specifications

1. Cost-share and tax credits are authorized:
   i. For measures to remove and properly dispose of all foreign materials and debris dumped in and around sinkholes.
   ii. For associated structural and agronomic measures to provide adequate vegetation for filtering and sediment trapping of surface run off.
   iii. For fencing in order to provide livestock exclusion and personal safety in these areas.

2. Consideration should be given to wildlife, any rare, threatened and/or endangered species (federal or state), and enhancing the appearance of the area when establishing the protective measures.

3. Site geology and hydrology must be considered in planning and installing component practices. Any openings such as swallets or cave entrances encountered with the installation of this practice will be documented and reported to The Department of Conservation and Recreation Division of Natural Heritage.

4. All debris (except biodegradable woody debris, rocks, and other mineral matter) removed from the sinkhole will be transported off site and disposed of in an environmentally safe manner. Should any hazardous material be anticipated or found during construction, local officials dealing with hazardous materials must be notified. Prevention methods, such as on site "over pack" drums, may be required if hazardous materials are known to exists at the site.

5. Once established, no additional debris or material can be placed within the sinkhole proper or within 50 feet of the drainage ways leading into the sinkhole. Deposition of any foreign material will violate the lifespan requirements of this standard.

6. All land disturbance activity will be adequately stabilized with appropriate vegetation as part of this cleanup effort. Appropriate vegetation will include, whenever possible, native grasses and shrubs.

7. Priority will be given to those sinkholes that:
   i. Have direct livestock access or are connected to drainage ways with livestock access, in which case the sinkhole protection BMP should be installed in conjunction with fencing the livestock out of the drainage way.
   ii. Are actively taking water by way of perennial streams, intermittent streams, or any other channeled flow.
   iii. Are connected to external, non-channelized drainage ways (swales).
   iv. Exhibit multiple characteristics cited in item C.8.

8. This practice is subject to NRCS Standard 500 Obstruction Removal, 342 Critical Area Planting, 362 Diversion, 382 Fence, 390 Riparian Herbaceous Buffer, 391 Riparian Forest Buffer, 393 Filter Strip, 472 Access Control, and 612 Tree and Shrub Establishment.

9. All practice components implemented must be maintained for a minimum of 10 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 throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. <u>Rate(s)</u>

1. A rate based on 75% of the cost of all eligible components to protect the sinkhole and remove debris has been established.

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

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

D. Technical Responsibility

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

Revised April 2020

Name of Practice: ROOF RUNOFF MANAGEMENT SYSTEM
DCR Specifications for No. WQ-12

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

A. Description and Purpose

A planned system designed to manage roof runoff from agricultural structures in areas where concentrated runoff creates a water quality concern through contact with animal waste such as barnyards and feeding areas. This practice is designed to collect, control and convey precipitation runoff from a roof to an appropriate discharge area in a way that will protect water quality.

To protect water quality by capturing roof runoff and routing it away from contaminated and/or sensitive areas to control bacteria and nutrient input.

B. Policies and Specifications

1. Eligibility: Cost-share and tax credit are limited to solving an identified water quality concern resulting from precipitation runoff from the roof of an existing agricultural structure that becomes contaminated by contact with animal waste and is polluting surface or ground water. This practice is for retro-fit of an existing agricultural structure only. The existing structure shall be suitable and adequate for installation of properly designed gutters over the course of the lifespan of the practice. Roof runoff management systems on new or planned structures and/or non-agricultural structures are not eligible.

2. Cost-share and tax credit are authorized:
   i. For gutters, down spouts, fascia boards, snow and ice retaining systems, collector pipes, cisterns, subsurface drains, underground outlets, diversions, channels, waterways, designed filter strips, land shaping, and similar measures needed as part of a system to manage roof runoff.

   ii. Only if the planned system will contribute significantly to protecting the water quality by keeping roof runoff away from contaminated and/or sensitive areas.

3. This practice is subject to NRCS standards: 362 Diversion, 558 Roof Runoff Structure, 561 Heavy Use Protection, 342 Critical Area Planting, 393 Filter Strip, 412 Grassed Waterway, 468 Lined Waterway or Outlet, 606 Subsurface Drain, and 620 Underground Outlet.

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

C. Rate(s)

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

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

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

D. Technical Responsibility

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

Revised April 2019

VIRGINIA AGRICULTURAL BEST MANAGEMENT PRACTICE TAX CREDIT PROGRAM

Overview

The goal of the Agricultural Best Management Practices (BMP) Tax Credit Program (TCP) is to encourage voluntary installation of BMPs that address Virginia's nonpoint source pollution water quality objectives. As with any tax credit usage, the taxpayer is ultimately responsible for determining whether they are eligible to utilize the tax credit in compliance with instructions and regulations from the Virginia Department of Taxation. Participation in Virginia's agricultural tax credit programs does not convey the public's right to access the participant's property. The current Virginia Agricultural Best Management Practice Tax Credit is twenty-five percent (25%) of the total eligible amount expended by the participant not to exceed $17,500.00. If a producer receives a cost-share payment, only the producer's share of the project (his out of pocket expense) is used to determine the amount of the tax credit.

The Agricultural BMP Tax Credit Program is managed and implemented with similar policies and procedures to the Virginia Agricultural BMP Cost-share (VACS) Program. The Virginia Agricultural Best Management Practices Tax Credit Program shall operate following the guidelines of the VACS Program in general, except as otherwise expressly provided in this document. Implementers should follow all aspects of the Virginia Agricultural BMP Cost-Share Program Manual, unless specifically stated otherwise in these guidelines. This guidance is intended to address any differences between the two.

The applicable Code of Virginia sections follow:

§ 58.1-339.3. Agricultural best management practices tax credit.

A. For all taxable years beginning on and after January 1, 1998, any individual who is engaged in agricultural production for market, or has equines that create needs for agricultural best management practices to reduce nonpoint source pollutants, and has in place a soil conservation plan approved by the local Soil And Water Conservation District (SWCD), shall be allowed a credit against the tax imposed by § 58.1-320 of an amount equaling 25 percent of the first $70,000 expended for agricultural best management practices by the individual.

As used in this section, "agricultural best management practice" means a practice approved by the Virginia Soil and Water Conservation Board (VSWCB) which will provide a significant improvement to water quality in the state's streams and rivers and the Chesapeake Bay and is consistent with other state and federal programs that address agricultural, nonpoint-source-pollution management. Eligible practices shall include, but are not limited to, the following:

1. Livestock-waste and poultry-waste management;
2. Soil erosion control;
3. Nutrient and sediment filtration and detention;
4. Nutrient management; and
5. Pest management and pesticide handling.

A detailed list of the standards and criteria for practices eligible for credit shall be found in the most recently approved "Virginia Agricultural BMP Manual" published annually prior to July 1 by the Department of Conservation and Recreation.

B. Any practice approved by the local Soil and Water Conservation District Board shall be completed within the taxable year in which the credit is claimed. After the practice installation has been completed, the local SWCD Board shall certify the practice as approved and completed and eligible for credit. The applicant shall forward the certification to the Department of Taxation on forms provided by the Department. The credit shall be allowed only for expenditures made by the taxpayer from funds of his own sources.

C. 1. The amount of such credit shall not exceed $17,500 or the total amount of the tax imposed by this chapter, whichever is less, in the year the project was completed, as certified by the Board. Any taxpayer claiming a tax credit under this section shall not claim a credit under any similar Virginia law for costs related to the same eligible practices.

2. If the amount of the credit exceeds the taxpayer's liability for such taxable year, the excess may be refunded by the Tax Commissioner. Tax credits shall be refunded by the Tax Commissioner on behalf of the Commonwealth for 100 percent of face value. Tax credits shall be refunded within 90 days after the filing date of the income tax return on which the individual applies for the refund.

D. For purposes of this section, the amount of any credit attributable to agricultural best management practices by a pass-through entity such as a partnership, limited liability Company, or electing small business corporation (S Corporation) shall be allocated to the individual partners, members, or shareholders in proportion to their ownership or interest in such entity.

E. A pass-through tax entity, such as a partnership, limited liability company or electing small business corporation (S corporation), may appoint a tax matters representative, who shall be a general partner, member-manager or shareholder, and register that representative with the Tax Commissioner. The Tax Commissioner shall be entitled to deal with the tax matters representative as representative of the taxpayers to whom credits have been allocated by the entity under this article with respect to those credits. In the event a pass-through tax entity allocates tax credits arising under this article to its partners, members or shareholders and the allocated credits shall be disallowed, in whole or in part, such that an assessment of additional tax against a taxpayer shall be made, the Tax Commissioner shall first make written demand for payment of any additional tax, together with interest and penalties, from the tax matters representative. In the event such payment demand is not satisfied, the Tax Commissioner shall proceed to collection against the taxpayers in accordance with the provisions of Chapter 18 (§ 58.1-1800 et seq.).

§ 58.1-439.5. Agricultural best management practices tax credit.

A. For all taxable years beginning on and after January 1, 1998, any corporation engaged in agricultural production for market who has in place a soil conservation plan approved by the local Soil and Water Conservation District (SWCD) shall be allowed a credit against the tax imposed by § 58.1-400 of an amount equaling twenty-five percent of the first $70,000 expended for agricultural best management practices by the corporation. As used in this section, "agricultural best management practice" means a practice approved by the Virginia Soil and Water Conservation Board (VSWCB)

which will provide a significant improvement to water quality in the state's streams and rivers and the Chesapeake Bay and is consistent with other state and federal programs that address agricultural, nonpoint-source-pollution management. Eligible practices shall include, but are not limited to, the following:

1. Livestock-waste and poultry-waste management;
2. Soil erosion control;
3. Nutrient and sediment filtration and detention;
4. Nutrient management; and
5. Pest management and pesticide handling.

A detailed list of the standards and criteria for practices eligible for credit shall be found in the most recently approved "Virginia Agricultural BMP Implementation Manual" published by the Department of Conservation and Recreation.

B. Any practice approved by the local Soil and Water Conservation District Board shall be completed within the taxable year in which the credit is claimed. After the practice installation has been completed, the local SWCD Board shall certify the practice as approved and completed, and eligible for credit. The applicant shall forward the certification to the Department of Taxation on forms provided by the Department. The credit shall be allowed only for expenditures made by the taxpayer from funds of his own sources.

C. 1. The amount of such credit shall not exceed $17,500 or the total amount of the tax imposed by this chapter, whichever is less, in the year the project was completed, as certified by the Board. Any taxpayer claiming a tax credit under this section shall not claim a credit under any similar Virginia law for costs related to the same eligible practices.

2. If the amount of the credit exceeds the taxpayer's liability for such taxable year, the excess shall be refunded by the Tax Commissioner. Tax credits shall be refunded by the Tax Commissioner on behalf of the Commonwealth for 100 percent of face value. Tax credits shall be refunded within 90 days after the filing date of the income tax return on which the individual applies for the refund.

D. For purposes of this section, the amount of any credit attributable to agricultural best management practices by a partnership or electing small business corporation (S Corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S Corporation.

<u>Definition of Applicants</u>

All individuals engaged in the production of agricultural products for market or owners of equines that create needs for agricultural best management practices to reduce non-point source pollutants within the boundaries of the Commonwealth of Virginia are eligible to participate in the Virginia Agricultural BMP Tax Credit Program. When an individual operates land not within the jurisdiction of a Soil and Water Conservation District, the District that has the landowner’s hydrologic unit will administer the program to the landowner. A list of Virginia’s Hydrologic Unit Codes by county can be found on the DCR website.

Agricultural fields may cross county borders and a field may exist in more than one District. For the purposes of this tax credit program only, Districts are urged to utilize the county boundary layer available in the AgBMP Tracking Module to determine the District that will administer the Agricultural BMP Tax Credit Program. Absent clarity of cost-share oversight authority for a given field from the revised boundary layer map, the District having the largest amount of acreage within its boundaries should administer the tax credit program for the entire field. However, alternatively, if neighboring Districts can cooperatively agree to utilize other existing boundary determination methodologies, those sources may be utilized.

Tax credits are made to the applicant (by social security number or federal tax ID number) who signs the request form. An applicant can be a landowner, agent, or operator of record as long as the individual has control of the property. An applicant also means any corporation, association or partnership, or one or more individuals. Various companies, corporations, and partnership arrangements exist for farm ownership. Farm corporations (signing under Federal Tax Identification number) or partnerships operating under a farm name are classified as a single "applicant."

Lands located outside the state are not eligible; unless a portion of the field or site in need of treatment lies within Virginia's boundary, in which case the entire field or site in need of treatment is eligible.

Pass-through Entity

Section 58.1-339.3 E of the Code of Virginia states "a pass-through tax entity, such as a partnership, limited liability company or electing small business corporation (S corporation), may appoint a tax matters representative, who shall be a general partner, member-manager or shareholder, and register that representative with the Tax Commissioner. The Tax Commissioner shall be entitled to deal with the tax matters representative as representative of the taxpayers to whom credits have been allocated by the entity under this article with respect to those credits. In the event a pass-through tax entity allocates tax credits arising under this article to its partners, members or shareholders and the allocated credits shall be disallowed, in whole or in part, such that an assessment of additional tax against a taxpayer shall be made, the Tax Commissioner shall first make written demand for payment of any additional tax, together with interest and penalties, from the tax matters representative. In the event such payment demand is not satisfied, the Tax Commissioner shall proceed to collection against the taxpayers in accordance with the provisions of Chapter 18 (§ 58.1-1800 et seq.)".

Additional information related to pass-through entities is available at https://www.tax.virginia.gov/pass-through-entities.

VIRGINIA
Form PTE

Virginia Pass-Through Credit Allocation

INSTRUCTIONS: Use this form to allocate a tax credit to the taxpayers listed in Section II. **All businesses in Section II should be registered with the Department before completing Form PTE. If you are not registered, use iReg online or complete Form R-1.** The information in Section II may be submitted as an enclosure provided that the enclosure lists only the required information. Any pass-through entity listed in Section II must complete a separate Form PTE. Allocations must be shown in whole dollars and the total allocations listed in Section II **must equal** the amount shown in Section I, Line G. To avoid delays at the time of annual return processing, Form PTE should be **filed within 30 days of certification**, but at least **90 days prior** to the participants (listed in Section II) filing their income tax returns. Ensure that the information provided on this form is accurate. Documentation will be required for any changes. All credits must be allocated by percentage of ownership or participation in the pass-through entity except for the Historic Rehabilitation Credit, Qualified Equity and Subordinated Debt Investments Tax Credit, Research and Development Expenses Tax Credit, Major Research and Development Expenses Tax Credit, and Enterprise Zone Credit.

Mail Form To:

Virginia Department of Taxation
Tax Credit Unit
P.O. Box 715
Richmond, VA 23218-0715

or

Fax to: **(804) 774-3902**

For assistance, call **(804) 786-2932.**

You must enclose a copy of your certificate. A separate Form PTE must be completed for each certificate.

Section I - Credit Information

A) Pass-Through Entity FEIN	B) Pass-Through Entity (Entity Filing Form) Name	C) If Subsidiary, Enter Parent's FEIN

D) Type of Filer	E) Disregarded Entity	F) Tax Year	G) Amount Granted/Allocated	H) Certificate Number, if Applicable
☐ Fiscal ☐ Calendar	☐ Yes ☐ No		.00	

I) Credit Type - Check One

☐ (AB) Agricultural Best Management	☐ (FC) Food Crop Donation	☐ (MR) Major Research & Development	☐ (RD) Research & Development
☐ (BR) Barge & Rail Usage	☐ (GJ) Green Jobs Creation	☐ (MP) Motion Picture	☐ (RB) Riparian Forest Buffer
☐ (CO) Community of Opportunity Program	☐ (HR) Historic Rehabilitation	☐ (NA) Neighborhood Assistance	☐ (TE) Telework
☐ (ES) Education Improvement Scholarships	☐ (IT) International Trade Facility	☐ (PV) Port Volume Increase	☐ (WR) Worker Retraining
☐ (EZ) Enterprise Zone (nonrefundable)	☐ (LV) Livable Home	☐ (ED) Qualified Equity and Subordinated Debt	☐ (OT) Other _____
☐ (WV) Farm Wineries & Vineyards	☐ (MB) Major Business	☐ (RM) Recyclable Materials	

Section II - Credit Allocation - ALL BUSINESSES MUST BE REGISTERED

	SSN / FEIN	Name	Amount
1	Street Address or P.O. Box	City, State, ZIP Code	.00
2	Street Address or P.O. Box	City, State, ZIP Code	.00
3	Street Address or P.O. Box	City, State, ZIP Code	.00
4	Street Address or P.O. Box	City, State, ZIP Code	.00
5	Street Address or P.O. Box	City, State, ZIP Code	.00
		TOTAL Must equal the amount shown in Section I, Line G	.00

Section III - Authorized Signature - Must be signed by an authorized representative of the entity.

Authorized Signature of Representative	Title	Date

Print Name	Telephone Number	Fax Number

Email

Va. Dept. of Taxation 2601430-W Rev. 08/17

BMP Sign-up

Districts will conduct sign-up for the tax credit program on a continuous basis. Sign-up will be recorded in the AgBMP Tracking Module. **In accordance with Code requirements, applicants must have a District approved soil conservation plan to receive an Agricultural BMP Tax Credit**. Other types of professionally developed conservation planning documents as itemized below may be used to meet this requirement. The conservation plan must include the implementation of the BMP that is eligible to receive a tax credit.

Technical information for the requested BMP, including a total estimated cost, must be completed by the District before the request is submitted to the District Board for consideration. Each District should establish a local schedule and deadlines for BMP completion for the Tax Credit Program to allow time for paper work and field work to be completed prior to the authorization of the tax credit. The Code of Virginia requires that the BMP be completed within the taxable year in which the tax credit is claimed. The completion date of the BMP, as documented by the Contract Part III Technical Practice Installation Certification date, must be in the same calendar year as the tax credit certification date in order for the producer to be eligible to participate in the Tax Credit Program. For example, if the BMP is certified as complete on Dec 31, 2017 and the tax credit was certified on Dec 31, 2017, the producer would be eligible to submit for the Agricultural BMP tax credit when filing 2017 state taxes.

Plan Requirements

Individuals wanting to participate in the Tax Credit Program must have a soil conservation plan approved by the local District Board of Directors prior to BMP installation. For the Tax Credit Program, the following types of plans are acceptable as soil conservation plans as long as the plan includes the BMPs installed.

- DCR Conservation Plan
- USDA Conservation Plan
- Pest Management Plan (VCE standards) WQ-10 BMP ***ONLY***
- Ag Stewardship Plan (VDACS standards)
- Resource Management Plan (DCR standards)

Conservation plans should be written by an individual certified to write that type of conservation plan and must meet current conservation planning standards. A private planner, technical service provider, or other professional conservation staff of an appropriate federal, state or local agency can prepare the plan. Comprehensive conservation planning for the entire operation is always encouraged.

Pre-approval of Tax credits BMPs

District Boards of Directors should approve BMPs for tax credits based on the total eligible estimated cost of the BMP before installation. Any cost over runs that may impact the amount of the approved tax credit must be approved as a separate action after the BMP is certified. Final approval of practices for tax credit is the responsibility of the local Soil and Water Conservation District Board of Directors.

Documentation

For any practice receiving a tax credit, the District will require a signed landowner application and certification forms (DCR Cost Share Contract Form # 199-071 Parts 1, 2 and 3), approved conservation plan including a copy of a map showing field and BMP location and exact acreage, engineering documents (if required for the BMP), and bills for all eligible practice components to determine total installation cost. Authorizing personnel will examine supporting data to determine eligible components and proper rates.

Districts will retain all billings and supporting data in their applicant files for a minimum of three years after the life span of the practice has expired. Districts must file their copy of all tax credit related forms by program year. Conservation plans and practice design sheets must be kept with individual case files according to cost-share program policy. Canceled applications may be discarded after the initial (3) year period if not needed for future reference by the District.

DCR Agricultural BMP Engineering Services

This program provides engineering assistance to the 47 Soil and Water Conservation Districts across the Commonwealth. Engineering assistance includes: engineering support with designs, training of District staff, and the implementation of various quality control mechanisms. The most notable of these quality control mechanisms is the implementation of DCR's Engineering Job Approval Authority (EJAA) Program. Please see Section II (Guidelines) and the Glossary of this Manual for further information about the EJAA Program.

Tax Credit Only Practice Components Requiring EJAA or PE Review and Approval

VACS Practice Code	VACS Practice Name	NRCS Practice Code	NRCS Practice Name	Professional Engineer (PE) or Engineering Job Approval Authority (EJAA) Required as Indicated Below
SL-6A	Small Acreage Grazing System	362	Diversion	EJAA
		376	Roofs and Covers	PE
		412	Grassed Waterway	EJAA
		516	Livestock Pipeline	EJAA
		558	Roof Runoff Structures	EJAA
		561	Heavy Use Area Protection	EJAA
		574	Spring Development	EJAA
		575	Trails and Walkways	EJAA
		614	Watering Facility	EJAA
		642	Water Well	EJAA
SL-6B	Alternative Water System	516	Livestock Pipeline	EJAA
		533	Pumping Plant	EJAA
		561	Heavy Use Area Protection	EJAA
		574	Spring Development	EJAA
		575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		614	Watering Facility	EJAA
		642	Water Well	EJAA
SL-11B	Farm Road, Animal Travel Lane, Heavy Use Area Stabilization	560	Access Road	EJAA
		561	Heavy Use Area Protection	EJAA
		575	Trails and Walkways	EJAA
WP-2B	Stream Crossing & Hardened Access	560	Access Road	EJAA
		575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		584	Channel Bed Stabilization	EJAA
WP-2C	Stream Channel Stabilization	584	Channel Bed Stabilization	EJAA

WP-4E	Animal Waste Structure Pumping Equipment	533	Pumping Plant	EJAA
		634	Waste Transfer	PE
WP-5	Stormwater Retention Pond	350	Sediment Basin	PE
		362	Diversion	EJAA
		378	Pond	PE
WP-7	Surface Water Runoff Impoundment for Water Quality	350	Sediment Basin	PE
		362	Diversion	EJAA
		378	Pond	PE
WP-8	Relocation of Confined Feeding Operations from Environmentally Sensitive Areas	313	Waste Storage Facility	PE
		350	Sediment Basin	PE
		356	Dike	EJAA
		359	Waste Treatment Lagoon	PE
		362	Diversion	EJAA
		412	Grassed Waterway	EJAA
		516	Livestock Pipeline	EJAA
		558	Roof Runoff Structure	EJAA
		560	Access Road	EJAA
		561	Heavy Use Area Protection	EJAA
		574	Spring Development	EJAA
		587	Structure for Water Control	PE
		614	Watering Facility	EJAA
		633	Waste Recycling	PE
		642	Water Well	EJAA
WQ-6	Constructed Wetlands	356	Dike	EJAA
		587	Structure for Water Control	PE
		634	Waste Transfer	PE
		658	Wetland Creation	EJAA
WQ-6B	Wetland Restoration	356	Dike	EJAA
		587	Structure for Water Control	PE
		657	Wetland Restoration	EJAA
		659	Wetland Enhancement	EJAA

WQ-7	Irrigation Water Recycling System	350	Sediment Basin	PE
		356	Dike	EJAA
		362	Diversion	EJAA
		410	Grade Stabilization Structure	PE
		412	Grassed Waterway	EJAA
		430	Irrigation Pipeline	EJAA
		436	Irrigation Reservoir	PE
		441	Irrigation System - Microirrigation	EJAA
		442	Sprinkler System	EJAA
		447	Irrigation System, Tailwater Recovery	EJAA
		449	Irrigation Water Management	EJAA
		466	Land Smoothing	EJAA
		468	Lined Waterway or Outlet	EJAA
		533	Pumping Plant	EJAA
		572	Spoil Spreading	EJAA
		582	Open Channel	EJAA
		607	Surface Drain, Field Ditch	EJAA
		608	Surface Drain, Main or Lateral	EJAA
		620	Underground Outlet	EJAA
		638	Water and Sediment Control Basin	PE
WQ-9	Capping/ Plugging of Abandoned Wells	351	Water Well Decommissioning	EJAA

Data Reporting

In order to accurately record and report tax credits provided to producers, it is vital that all data requested be entered into the AgBMP Tracking Module. Tax credit data is captured on the Programs tab of the AgBMP Tracking Module and should be entered using the following guidelines:

- The "Estimated Instance Cost" and "Actual Instance Cost" should be entered for BMPs that receive both cost share and a tax credit, as well as for BMPs that are only eligible to receive tax credits.
- "Tax Credit Amount Taken On" is the out of pocket amount the producer spent on eligible costs to install the BMP which are not receiving cost-share. For flat rate practices, this amount may be more than the cost-share total.
- The "Tax Credit Approved" is the amount approved by the District Board. The "Tax Credit Issued" amount cannot be larger than the "Tax Credit Approved"
- The "Tax Credit Board Approval Date" field is the date that the Board approved the Tax Credit. While this date can be the same as the date the Board approved the BMP itself, it can be different especially if there is an additional Tax Credit approved.

- If a “Technical Certification Date” has not been entered on the General tab, the “Tax Credit Issued” and the “Tax Credit Certification Signature Date” fields are not available for entry. Until a BMP is certified as complete, a Tax Credit cannot be issued. Note that the “Technical Certification Date” and the “Tax Credit Certification Signature Date” must be in the same calendar year. Tax credits issued in a different calendar year than the “Technical Certification Date” are not valid. Therefore, if a project is completed at the end of the calendar year and the producer requests an additional tax credit that will not be approved until a January Board meeting, District staff should technically certify in the new year with the “Tax Credit Certification Signature” date equaling the “Tax Credit Board Approval Date”. In such cases, the Tax Credit will not be eligible for redemption until the following tax year.
- The “Tax Credit Issued” amount and the “Tax Credit Certification Signature Date” are entered when the Tax Credit is issued. The “Tax Credit Issued” amount cannot be greater than the “Tax Credit Approved” amount. If no additional tax credit is required, the “Tax Credit Certification Signature Date” should equal the “Technical Certification Date”. If an additional tax credit is required, the “Tax Credit Certification Signature Date” should equal the “Tax Credit Board Approval Date”.
- At the bottom of the Programs tab, the “Sum of Approved Tax Credits” and the “Sum of Issued Tax Credits” are provided for cases when more than one Tax Credit has been issued.
- If an additional tax credit on eligible, out of pocket expenses is approved by the District Board, a second tax credit record should be added instead of modifying the original tax credit record. The system automatically sums multiple tax credits when the Tax Credit Certificate is generated.

Inspections and Verification

All approved tax credit BMPs are subject to inspection for program compliance during the life span of the practice. Technical inspection and certification are the responsibility of designated technically responsible personnel (NRCS, District, DOF, and DCR). Random verification inspections will be conducted annually by the District Conservation Specialist/Technician under the guidance of the Conservation District Coordinator to determine that the individual practice is still viable. Practices to be verified or spot checked will be identified and inspected based upon Chesapeake Bay Program Office (CBPO) approved verification procedures and the Department's procedures for all practices outside of the Chesapeake Bay area.

Verification forms should be retained by the District and filed by program year. A copy of each spot check report should be made and forwarded to the Conservation District Coordinator and to any other agency providing cost-share for that project.

Transfer of Responsibility

When an applicant agrees to maintain the approved BMP for the specified life span, the applicant is responsible regardless of changes in the control of the land including the sale of the property or any change in farm lease arrangements. Maintenance agreements between the involved parties can be encouraged but the ultimate responsibility still rests with the applicant. Upon the transfer of ownership or leasehold of the property, the original applicant must present to the District either an executed copy of the “Agricultural Best Management Practice Maintenance Agreement Transferring Responsibility for Best Management Practice” transferring legal responsibility for maintenance of the

practice to the new property owner/lessee. Alternatively, the participant may return, on a pro-rata basis, tax credit funds directly to the Department of Taxation.

A participant that fails to maintain the practice for the specified life span will be required to refund all or part of the tax credit amount to the Department of Taxation. Practice failures or damage that results from other than weather related causes are not eligible for additional tax credit. Practices that are damaged or destroyed before certification are also the responsibility of the applicant and only the original authorized tax credit amount can be used to establish the practice.

Practice failures may occur due to unusual weather conditions, such as drought or severe storms that are beyond the control of the participant. If the practice has been certified and fails due to weather during the life span requirement, the participant may be entitled to additional tax credit in future sign-up periods. Reapplication for practice failure can be authorized only once for the specific practice on the specified acreage (except where not eligible as stated in the practice specification). Reapplications will be subject to the life span requirement of the second application request.

Commonwealth of Virginia
Agricultural Best Management Practice Maintenance
AGREEMENT TRANSFERRING MAINTENANCE RESPONSIBILITY FOR
BEST MANAGEMENT PRACTICE

This agreement is intended to designate the transfer of maintenance responsibility for a Best Management Practice that received cost-share or tax credit. The present participant (owner or operator) of the property has received funding from the Commonwealth of Virginia to implement a Best Management Practice on the below-referenced land unit. In return he/she has agreed to maintain the practice until_____. Completion of this agreement acknowledges assumption of this responsibility by the new participant, including the requirement to repay cost-share and tax credit received by the present participant if the BMP is not maintained according to state specifications.

Farm No._____Tract No._____Field No. (s)_____

VACS specification number_____ Extent Installed_____

Or

Contract No. _____

PRESENT PARTICIPANT-NAME AND ADDRESS **NEW PARTICIPANT-NAME AND ADDRESS**

_____ _____

_____ _____

_____ _____

_____ _____

Phone No._____ Phone No. _____

The undersigned hereby certify that the present participant has transferred to the new participant his or her right and interest in the land unit described above. In consideration of this transfer of ownership or leasehold, it is hereby agreed:

1. The new participant hereby assumes the duties and obligations of the present participant under Contract No. _____to maintain the above BMP for its lifespan in accordance with state specifications, and to refund all or part of the cost-share assistance or tax credit if the practice is found not to meet state specifications, or if the practice is removed or not properly maintained during its lifespan. The new participant agrees to allow District personnel access to his property for the purpose of verifying maintenance of the BMP.
2. The_____District acknowledges the transfer of the maintenance responsibility. Any cost-sharing or assistance provided under this transfer agreement shall be in accordance with applicable program rules and regulations of the Virginia Agricultural BMP Manual.

_____ _____
(SIGNATURE OF PRESENT PARTICIPANT) (SIGNATURE OF NEW PARTICIPANT)

_____ _____
DATE DATE

_____ _____
SSN or Federal Tax ID # SSN or Federal Tax ID #

APPROVED BY:_____ DATE: _____
(District Board member) (Board Approval Date)

Participants found, at any time of year, to have practices not meeting specifications or practices that have been destroyed during the designated life span will be contacted by the District and informed of the nature of the deficiency and the repayment requirements if not corrected. This should initially be a verbal notice (with the date documented in a case file). Verbal notice should be followed with a written notice (by certified mail) within two weeks. This notice must indicate the observed nature of the problem and allow the individual the opportunity to respond within two weeks.

Participants may be given a maximum grace period of six months from date of the written notification for practice compliance. At the end of the grace period, the practice will be re-inspected. The District will notify participants found with practices still not in compliance in writing that repayment of tax credit is required.

The partial or full return of tax credit funds will be calculated on a straight-line prorated basis. This should be calculated on a monthly basis. For Example: XYZ District authorized a $1,200 tax credit for a SL-6B BMP to Farmer Green on October 10, 2004. Tax credit program guidelines stipulate that the lifespan of the practice begins on January 1 of the calendar year following the issuance of the tax credit. This practice is spot checked in August of 2007 and it is discovered that the land was sold in June 2007 for development and the practice has been destroyed. The District should calculate the landowner's pro-rata share as follows:

- Installation date: Oct. 10, 2004
- Lifespan of practice: 10 Years- Jan 1, 2005 through Dec 31, 2014 = 120 months
- Spot Check Date: Aug. 2007
- Practice in Compliance: Jan 2005 through June 2007: 30 months
- Tax Credit to Landowner: $1,200
  $1,200 divided by 120 months = $10/month
- Repayment Calculation: 120 months – 30 months = 90 months
- Landowner re-payment to the Department of Taxation: 90 months X $10/mo. = $900.00

If a participant is requested to return a tax credit, the District will notify the Department of Taxation of the landowner's name, social security number or tax ID number that the tax credit was issued to, the year that the tax credit was issued, contract number, instance number, the DCR specification code that the tax credit was authorized for, and the calculated re-payment amount. Upon receiving a response from the Department of Taxation regarding the verified repayment amount due, the District will provide the amount, in writing, to the participant. Participants will have 60 days from the date of notification to refund the Department of Taxation the tax credit funds. The District will direct the participant to send a check directly to the Virginia Department of Taxation, P. O. Box 715, Richmond, VA 23218-0715 with a letter identifying the participant's name, address, social security or tax identification number, and year that the tax credit was utilized. The participant should provide the District with a copy of the letter sent to the Department of Taxation for verification.

Granting of the Tax Credit

Final approval of practices for tax credit is the responsibility of the local Soil and Water Conservation District Board of Directors. District Boards of Directors approve BMPs for tax credits based on the total estimated cost of the BMP before installation. If a calculation of 25% percent of the participant's out of pocket eligible expenditures is less than the Board approved estimated tax credit when the

practice is certified as complete, then no further Board action is required. If the requested tax credit amount is larger than the Board approved estimated tax credit, the Board must approve the additional tax credit amount as a separate action. District Directors must vote on all actions taken and record the outcome in the minutes of the meeting that such action is approved.

When calculating a tax credit on a BMP that allows both a percentage cost-share payment and a flat rate payment (including buffer payments), both the flat rate and the percentage based cost-share amount should be included in the calculation of the tax credit. Both the flat rate and the percentage based-cost share amount should be deducted from the participant's out of pocket expenses to calculate the Agricultural BMP tax credit amount. For example, Participant A signs up for SL-6W with eligible costs of $100,000 at the 85% cost-share rate. The District Board approved $85,000 in cost-share and $5,000 in buffer payment for a total VACS payment of $90,000. The participant's estimated tax credit should be $2,500 based off of twenty-five percent of $10,000, the amount he will have to pay for the project out of pocket.

Districts must send the applicant an **AGRICULTURAL BEST MANAGEMENT PRACTICES TAX CREDIT CERTIFICATE** on District letterhead along with a signed copy of the VIRGINIA BMP INCENTIVES PROGRAMS CONTRACT Parts I, II and III. The **AGRICULTURAL BEST MANAGEMENT PRACTICES TAX CREDIT CERTIFICATE** notification must follow the format of the example below.

The applicant must use the **AGRICULTURAL BEST MANAGEMENT PRACTICES TAX CREDIT CERTIFICATE** and/or a copy of the certificate of completion for documentation when filing a tax return.

EXAMPLE

Soil and Water Conservation District
Letterhead

AGRICULTURAL BEST MANAGEMENT PRACTICES
TAX CREDIT CERTIFICATE

NAME OF APPLICANT:

ADDRESS:

SSN or TAX ID NUMBER:

BMP INSTALLED: SL-6W, Stream Exclusion with Wide Width Buffer and Grazing Management

CONTRACT NUMBER: 01-12-1111

INSTANCE NUMBER: 012121

COMPLETION DATE: 05/05/2012

CONSERVATION PLAN WRITTEN DATE: 01/15/2012

TOTAL APPROVED ESTIMATED COST: $10,000.00

TOTAL ACTUAL COST OF BMP: $11,075.00

COST-SHARE RECEIVED: $7,500.00

AMOUNT TAX CREDIT IS TAKEN ON: $2,500.00

Under the provisions of Title 58.1, Chapter 3, Article 3, of the Code of Virginia, Application for the tax credit is hereby made.

CERTIFICATION OF TAX CREDIT

Approved Tax Credit: $625.00

Reason for Tax Credit: Agricultural BMP

Approving Soil and Water Conservation District: (District name)

District Director Signature:_____ Date: _____

Neither the local Soil and Water Conservation District nor the Virginia Department of Conservation and Recreation is providing tax advice; the program participant may wish to consult with an independent tax advisor regarding potential tax consequences.

Questions

Questions concerning any aspect of the tax credit program that are not addressed in this Manual should be directed to the appropriate DCR Conservation District Coordinator or Agricultural Incentives Program Manager.

Other Agricultural Tax Credits

The General Assembly has authorized other tax credits to encourage the purchase and usage of certain agricultural equipment in support of soil and water conservation. The usage of these tax credits by an agricultural producer does not require issuance of a Tax Credit Certification Letter or approval of the equipment by the District. As with any tax credit usage, the taxpayer is ultimately responsible for determining that they are eligible to utilize the tax credit in compliance with instructions and regulations from the Virginia Department of Taxation. Excerpts from the Code of Virginia are provided below for reference only.

Tax Credit for Purchase of Conservation Tillage Equipment

The Department of Taxation has authority over the administration of the conservation tillage tax credit; DCR does not have an administrative role in this particular conservation tillage tax credit

§ 58.1-334. Tax credit for purchase of conservation tillage equipment.

A. Any individual shall be allowed a credit against the tax imposed by § 58.1-320 of an amount equaling 25 percent of all expenditures made for the purchase and installation of conservation tillage equipment used in agricultural production by the purchaser. As used in this section the term "conservation tillage equipment" means a planter, drill, or other equipment used to reduce soil compaction commonly known as a "no-till" planter, drill, or other equipment used to reduce soil compaction including guidance systems to control traffic patterns that are designed to minimize disturbance of the soil in planting crops, including such planters, drills, or other equipment designed to reduce soil compaction which may be attached to equipment already owned by the taxpayer.

B. The amount of such credit shall not exceed $4,000 or the total amount of tax imposed by this chapter, whichever is less, in the year of purchase. If the amount of such credit exceeds the taxpayer's tax liability for such tax year, the amount which exceeds the tax liability may be carried over for credit against the income taxes of such individual in the next five taxable years until the total amount of the tax credit has been taken.

C. For purposes of this section, the amount of any credit attributable to the purchase and installation of conservation tillage equipment by a partnership or electing small business corporation (S corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

§ 58.1-432. Tax credit for purchase of conservation tillage equipment.

A. Any corporation shall be allowed a credit against the tax imposed by § 58.1-400 of an amount equaling 25 percent of all expenditures made for the purchase and installation of conservation tillage equipment used in agricultural production by the purchaser. As used in this section, the term "conservation tillage equipment" means a planter, drill, or other equipment used to reduce soil compaction commonly known as a "no-till" planter, drill, or other equipment used to reduce soil compaction including guidance systems to control traffic patterns that are designed to minimize disturbance of the soil in planting crops, including such planters, drills, or other equipment used to reduce soil compaction which may be attached to equipment already owned by the taxpayer.

B. The amount of such credit shall not exceed $4,000 or the total amount of tax imposed by this chapter, whichever is less, in the year of purchase. If the amount of such credit exceeds the taxpayer's tax liability for such tax year, the amount which exceeds such tax liability may be carried over for credit against income taxes in the next five taxable years until the total amount of the tax credit has been taken.

C. For purposes of this section, the amount of any credit attributable to the purchase and installation of conservation tillage equipment by a partnership or electing small business corporation (S corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

<u>Tax Credit for Purchase of Advanced Technology Pesticide and Fertilizer Application Equipment</u>

§ 58.1-337. Tax credit for purchase of advanced technology pesticide and fertilizer application equipment.

A. Any individual engaged in agricultural production for market who has in place a nutrient management plan approved by the local Soil and Water Conservation District by the required tax return filing date of the individual shall be allowed a credit against the tax imposed by § 58.1-320 of an amount equaling twenty-five percent of all expenditures made by such individual for the purchase of equipment certified by the Virginia Soil and Water Conservation Board as providing more precise pesticide and fertilizer application. Virginia Polytechnic Institute and State University and Virginia State University shall provide at the request of the Virginia Soil and Water Conservation Board technical assistance in determining appropriate specifications for certified equipment, which would provide for more precise pesticide and fertilizer application to reduce the potential for adverse environmental impacts. The equipment shall be divided into the following categories:

1. Sprayers for pesticides and liquid fertilizers;
2. Pneumatic fertilizer applicators;
3. Monitors, computer regulators, and height adjustable booms for sprayers and liquid fertilizer applicators;
4. Manure applicators;

5. Tramline adapters; and
6. Starter fertilizer banding attachments for planters.

B. The amount of such credit shall not exceed $3,750 or the total amount of the tax imposed by this chapter, whichever is less, in the year of purchase. If the amount of such credit exceeds the taxpayer's tax liability for such taxable year, the amount which exceeds the tax liability may be carried over for credit against the income taxes of such individual in the next five taxable years until the total amount of the tax credit has been taken.

C. For purposes of this section, the amount of any credit attributable to the purchase of equipment certified by the Virginia Soil and Water Conservation Board as providing more precise pesticide and fertilizer application by a partnership or electing small business corporation (S corporation) shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

§ 58.1-436. Tax credit for purchase of advanced technology pesticide and fertilizer application equipment.

A. Any corporation engaged in agricultural production for market which has in place a nutrient management plan approved by the local Soil and Water Conservation District by the required tax return filing date of the corporation shall be allowed a credit against the tax imposed by § 58.1-400 of an amount equaling twenty-five percent of all expenditures made by such corporation for the purchase of equipment certified by the Virginia Soil and Water Conservation Board as providing more precise pesticide and fertilizer application. Virginia Polytechnic Institute and State University and Virginia State University shall provide at the request of the Virginia Soil and Water Conservation Board technical assistance in determining appropriate specifications for certified equipment which would provide for more precise pesticide and fertilizer application to reduce the potential for adverse environmental impacts. The equipment shall be divided into the following categories:

1. Sprayers for pesticides and liquid fertilizers;
2. Pneumatic fertilizer applicators;
3. Monitors, computer regulators, and height adjustable booms for sprayers and liquid fertilizer applicators;
4. Manure applicators;
5. Tramline adapters; and
6. Starter fertilizer banding attachments for planters.

B. The amount of such credit shall not exceed $3,750 or the total amount of the tax imposed by this chapter, whichever is less, in the year of purchase. If the amount of such credit exceeds the taxpayer's tax liability for such taxable year, the amount which exceeds the tax liability may be carried over for credit against the income taxes of such corporation in the next five taxable years until the total amount of the tax credit has been taken. Credits granted to a partnership or electing small business corporation (S corporation) shall be passed through to the partners or shareholders, respectively.

C. For purposes of this section, the amount of any credit attributable to the purchase of equipment certified by the Virginia Soil and Water Conservation Board as providing more precise pesticide and fertilizer application by a partnership or S corporation shall be allocated to the individual partners or shareholders in proportion to their ownership or interest in the partnership or S corporation.

Agricultural Production
Equipment qualifying for this credit must be used in "agricultural production". Section 15.2-4302 of the Code of Virginia defines "agricultural production" as the production for commercial purposes of crops, livestock and livestock products and shall include the processing or retail sales by the producer of crops, livestock and livestock products which are produced on the parcel or in the district."

Nutrient Management Plans
Both §§ 58.1-337 and 58.1-436 require the individual or corporation requesting a tax credit to have in place a nutrient management plan that has been prepared and certified by a Virginia certified nutrient management planner. The key components of the nutrient management plan include:

- Field maps indicating field locations and environmentally sensitive areas;
- Soil productivity information;
- Nutrient management recommendations by field or rotation based upon soil and/or manure tests as applicable; and
- Plan narrative.

Plan approval is a onetime requirement fulfilled only for the year in which the tax credit is taken.

Equipment Certification
To receive the tax credit, a piece of equipment must meet all the specifications for its category in Section IV of this document. It will be the responsibility of the purchaser to determine if the equipment meets these specifications. It is not the responsibility of the Soil and Water Conservation District (District) or any other agency staff to determine or advise the purchaser if the equipment qualifies. It is solely the responsibility of the individual to pursue the development of a nutrient management plan.

Filing the Commonwealth of Virginia Tax Return
The individual filer must complete a Schedule CR, Part VI; corporate filers must complete Form 500 CR, Part VI. The Virginia Department of Taxation will require as certification a copy of the letter from the local District indicating that the nutrient management plan has been approved. This letter, along with a confirmation of purchase of the qualifying equipment, must be attached to the Schedule CR or Form 500 with the state tax return when it is filed to receive the credit.

Nutrient management plans must be written and approved prior to the required filing date of the individual's or corporation's tax return for that year. The tax credit will not be approved without the nutrient management plan approval letter provided by the District (example provided in Appendix 2).

Additional questions regarding tax policy should be directed to either a qualified tax consultant or the Virginia Department of Taxation, Office Services Division, Taxpayer Assistance Section.

Equipment Categories and Specifications:
The categories of equipment covered include:

- **A.** Spray systems for pesticides and liquid fertilizers;
- **B.** Pneumatic fertilizer applicators;
- **C.** Monitors and flow regulators for pesticide and liquid fertilizer applicators;
- **D.** Manure application equipment;
- **E.** Tramline adapters;
- **F.** Starter fertilizer banding and in-furrow attachments for planters;
- **G.** Variable rate application equipment using spatial positioning systems; and
- **H.** Other equipment.

The certification criteria for equipment eligible to receive this income tax credit are as follows:

A. Spray systems for pesticides and liquid fertilizers

Required features for newly purchased spray systems:
Newly purchased sprayers, to qualify for the credit, must have all of the following features.

1. Quick change nozzles to enable operators to select and position the correct nozzle for each type of pesticide and/or liquid fertilizer application. These must also be "anti-drip" type nozzles.
2. Adequate pump capacity to maintain required pressures at all nozzles on the boom and to ensure complete mixing at all times of the spray solution by recirculating at least 40% of the pumped volume.
3. Sectioned boom "cutoffs" for boom widths greater than 20 feet that enable the operator to reduce spray width and thus reduce overlaps and applications to non-field areas when finishing irregularly shaped areas of fields.
4. Pressure gauges or monitors on each boom section to ensure adequate pressure for even applications rates across the boom.
5. Steps and a platform or other means where applicable to safely and easily add materials to the spray tank. The spray tank opening must be large enough for the safe addition of materials to the tank and have a lid that seals.
6. Calibration kits for all new sprayers.

Optional features for new spray systems:
The following components are optional for new spray systems but considered desirable. Both these items and those listed above, when purchased as components for addition to an existing sprayer will qualify for the tax credit.

7. Spray tank drain that can be opened and closed without exposure of the operator to the solutions.

8. Mechanical or hydraulic boom height adjustment to enable operators to select the appropriate height for each spraying situation.
9. Marker systems which allow the applicator to more precisely locate previously sprayed areas to prevent over application in the overlap between sprayer passes.
10. Clean water rinse systems which provide the ability to rinse spray tanks or pesticide containers in the field at the time the application is being made.
11. Self-leveling booms which minimize boom movement and assure accurate spray patterns across the width of the boom.
12. Multiple nozzle body systems or multiple boom systems which allow for a rapid change between previously selected nozzles to allow for appropriate changes in the field without leakages.
13. Chemical injection metering systems which eliminate the need for tank mixing.
14. Air carrying sprayers.
15. GPS guidance and auto-steer systems.
16. Pesticide application systems incorporating electrostatic charging technology to improve spray deposition.

Required features for upgraded existing spray systems:
Items added to upgrade an existing spray system qualify if the resultant sprayer meets the following criteria also:

1. Spray systems must have the essential features previously stated for new spray systems in items 1-6 above.

Optional features for upgraded existing spray systems:
Both these items and those listed above, when purchased as components for addition to an existing sprayer will qualify for the tax credit.

2. Spray systems may have the essential features previously stated for new spray systems in items 7-16 above.

Required features for air assist spray systems:
Newly purchased air assist application equipment must have the following features.

1. Air assist spray systems must have the essential features previously stated for spray systems in items 2-6 above. Nozzles need not be “quick change” but must be “anti-drip” for the system to qualify.
2. Manifold sections must have separate cutoff or actuator valves.
3. There must be top deflectors, guide vanes, or other means to adjust the direction of the flow of air.
4. The equipment must be capable of variable air volume (i.e. a variable pitch fan, variable slot width, etc.…)

Optional features for air assist spray systems:
5. Multiple nozzles.
6. Powder mixers or pre-mixers.

7. Optical or electronic sensing system to control sprayer application by providing spray shut off to the whole nozzle bank or to individual nozzles when no target is present.
8. Equipment which permits the recovery of excess spray for reuse.
9. Shields of deflectors to contain or direct the spray.

B. Pneumatic fertilizer applicators

Pneumatic applicators are capable of uniformly applying materials that vary in particle size on non-uniform terrain. They must possess the following characteristics to qualify for the tax credit:

Required features:
1. Provide uniform division of the fertilizer materials from the central hopper to each distribution device on the boom.
2. Allow infinitely variable rates of application within the range of application rates for the particular applicator.
3. Have a spread pattern coefficient of variation of less than 15% for the entire boom width.

Optional features:
4. Be equipped for "static" and/or moving calibration prior to field use.
5. Have monitoring equipment which indicates the actual application rate for boom sections during field operation.
6. Be equipped to vary the rate of application during field operation.

C. Monitors and flow regulators for pesticide and liquid fertilizer applicators

These are defined as electronic and mechanical devices which provide operators with an accurate indication of any of the following:

1. True ground speed;
2. Nozzle pressure;
3. Flow rates of the spray solution;
4. Air flow in air assist spray systems;
5. Blocked nozzles or distribution devices;
6. Actual application rates;
7. Allows for the accurate adjustment of application rates while spraying;
8. Metering for injected liquid fertilizer application at or post planting; or
9. Monitor boom height and adjust to appropriate height for each spraying situation to assure accurate spray patterns across the width of the boom.

D. Manure application equipment

Newly purchased manure application equipment must have the following features. Items added to upgrade an existing applicator qualify if the resultant spreader meets the following criteria also.

1. Dry Manure Spreaders

Required features:

a. Constructed so as to prevent leakage during transport and include a litter/slurry pan or a hydraulic end gate.
b. Capable of spreading manure at 2.5 tons/acre or less in a uniform swath.
c. Box spreaders (flat bottom) having a beater spreader mechanism shall be equipped with an upper beater and a gear reduction unit (slow down kit) to provide chain speeds of no more than 2.5 feet/minute.

Optional features:

d. Spreaders having an adjustable discharge gate/door may be equipped with an indicator to display the position of the gate/door.
e. Spreaders used to apply poultry manure and litter less than 50% moisture content may have cupped beaters.

2. Liquid Manure Spreaders

Required features:

a. Constructed so as to prevent leakage during equipment transport.
b. Capable of spreading manure at 1,000 gallons/acre or less in a uniform swath behind the spreader.
c. Have an application swath width of 20 feet or greater. The applicator must be driven by a positive discharge system.

Optional features:

d. Equipment to inject the manure directly into the soil. The application swath width requirements are waived for this option.

3. Manure Irrigation System

Required features:

a. Designed for a maximum application rate of 0.30"/hour. The nutrient management plan must address the issues of infiltration rates and environmentally sensitive areas.
b. Components submitted for the tax credit must meet the IRS "equipment" definition requirements of Federal Tax Regulation 1.48-1(c). Pipe installation in the ground is defined as real property and does not qualify.
c. Be purchased and utilized primarily for waste application.

E. Tramline Adapters

A tramline adapter alters a grain drill to leave certain rows unplanted. This allows for later access (traffic patterns) to the growing crop for split application of fertilizers and pesticides without damage to the crop. For the purposes of these criteria, the adapter is defined as the following components necessary for the adoption of the system:

1. The tramline mechanism for the drill.
2. As a set, the tires and associated rims, not to exceed 13.6" wide, necessary to adapt tractors for use in tramline systems.

F. Starter fertilizer banding and in-furrow attachments for planters

Starter fertilizer attachments for planters, drills and transplanters include appropriate soil opening components and allow for accurate band applications of fertilizers near the root zone when planting or transplanting a crop. Fertilizer hoppers or liquid fertilizer tanks attached or connected by hoses to the planter during field operation are an integral component of this equipment. The starter fertilizer banding or in-furrow attachment may be purchased as part of a new planter or purchased for installation on an existing planter. For newly purchased planters, only the cost of the starter fertilizer banding or in-furrow attachment is eligible for this tax credit. The start fertilizer banding or in-furrow attachment must meet the following criteria:

1. Constructed to place fertilizer in a band below the soil surface and within the root zone of seedlings or transplants.
2. Capable of accurately metering a range of application rates.

G. Variable rate application equipment using spatial positioning systems

This equipment combines the use of spatial positioning systems, such as global positioning using satellite technology, with variable rate application equipment for nutrients or pesticides, to result in more precise applications. To qualify for the tax credit, the equipment must:

1. Be used in conjunction with pesticide, manure, and fertilizer application equipment.
2. Result in automated variable nutrient or pesticide application rates using:
   a. Spatial positioning systems;
   b. Variable application rate controllers; and
   c. Other input data such as, but not limited to, grid or management zone soil analysis results, soil types, expected yields, or weed maps.

H. Other equipment

Application systems which incorporate entirely new technology or application technology not covered by these criteria will be considered by the Board on a case-by-case basis upon request.

a. Pesticide application systems incorporating electrostatic charging technology to improve spray deposition shall qualify for the tax credit.
b. Equipment added to irrigation systems which provide more precise pesticide or nutrient application will qualify for the tax credit. Eligible necessary components include:
   i. Accessories to protect the water source by preventing back flow or back siphoning.

ii. A flow sensor to monitor water flow and adjust the injection rate of pesticide or fertilizer to achieve the appropriate application rate.

Sample approval letter from District.

Date

Farm Name or Producer's Name c/o
Producer's Name
Address
City, State, Zip

RE: Nutrient Management Plan Approval for Tax Credit of Precision Application Fertilizer and/or Pesticide Equipment

Dear Mr. /Ms. Last Name:

The (insert District name) Soil & Water Conservation District has received a copy of your Nutrient Management Plan, which was prepared by a Virginia certified Nutrient Management Planner, and is valid from XX/XX/XXXX to XX/XX/XXXX. **This letter verifies that your Nutrient Management Plan has been approved by the (insert District name) Soil & Water Conservation District.**

Your tax preparer must submit this letter with your tax return in order to apply for the Virginia Fertilizer and Pesticide Application Equipment Tax Credit in accordance with §§ 58.1-337 or 58.1-436 of the *Code of Virginia*. This tax credit is available for equipment purchased to provide more precise fertilizer and/or pesticide application. You and your tax preparer are responsible for determining your eligibility for this tax credit.

With regards,

Name Position
title
(insert District name) SWCD

Name
District Director

(insert District name) SWCD

Revised April 2020

Name of Practice: SMALL ACREAGE GRAZING SYSTEM
DCR Specifications for No. SL-6A

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

A. Description and Purpose

To reduce soil erosion in pastures and prevent those areas exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover, and eliminate direct access to, or a direct runoff input to live streams where there is a defined water quality problem.

Small acreage grazing systems frequently require the use of a heavy use area to remove livestock from pastures in wet conditions or when the pastures need to rest and recover. These sacrifice area paddocks quickly become denuded of vegetation and may harbor undesirable plants. Conditions in these paddocks are often unfavorable to livestock as well as the surrounding environment due to the build-up of manure in the paddock and the erosion that may take place on denuded soil.

The intent of this practice is to prevent manure and sediment runoff from a heavy use area and pastures from entering watercourses and to capture a portion of the manure as a resource for other uses such as fertilizer. This is accomplished by dividing the pasture into grazing paddocks. Livestock is rotated from paddock to paddock as is necessary to maintain a permanent vegetative cover. One lot is stabilized and designated as a heavy use area for use in periods of wet weather and when the grass in the grazing paddocks needs to rest in order to re-grow to the appropriate grazing height.

B. Policies and Specifications

1. Tax credit is authorized to protect surface water, supply water troughs and stabilize a heavy use area
   i. Tax Credit will not be authorized for any operation where the stocking rate exceeds two (2) animal units (1,000-pound equivalent) per acre on the existing pastures.
   ii. This Best Management Practice (BMP) cannot compensate for over stocking. A stocking rate of no greater than two (2) animal units (1,000-pound equivalent) per acre must be maintained throughout the life span of the practice.

2. A grazing management plan, practice design, and operation and maintenance (O & M) plan are to be developed with consultation from a VCE Agent specializing in the alternative livestock (if available) and NRCS and/or District.

3. A minimum of three grassed grazing paddocks is required.

4. A heavy use area is required.
   i. Manure, hay, bedding, and other organic materials must be removed from the sacrifice area at intervals outlined in the operation and maintenance plan. The sacrifice area must be maintained in a sanitary condition that does not allow for the accumulation of manure or the creation of mud.
   ii. The sacrifice area should be sized to allow 600 to 1,000 square feet per animal unit (1,000-lb. equivalent). Consideration should be given to the age, sex, breed, and behavioral characteristics of the animals when determining the final size and number of sacrifice areas needed. The heavy use area shall be sloped not to exceed 10% maximum.
   iii. Divert surface water and roof runoff away from the sacrifice area.
   iv. Provide filtering of runoff from the heavy use area.
   v. The primary use of the heavy use area shall be within the purpose of establishing a small acreage grazing system. Design considerations shall not be given to its use as a riding or exercise area or any purpose other than to perform its water quality benefit.

5. Each grassed grazing paddock will be sized based on soil type, topography and herd size and be maintained in at least 80% coverage of permanent forage.

6. Livestock must be excluded from all streams. A minimum 35-ft.wide vegetated buffer shall be maintained directly adjacent to all streams, ponds, and other watercourses.

7. Walkways may be installed to facilitate herd movement from the barn to the heavy use area and grazing paddocks. Walkways are to be designed in accordance with NRCS standard 575 (Animal Trails and Walkways).

8. In order for the forage in the grass paddocks to take up nutrients such as nitrogen it must be managed for growth and harvested for hay or pasture.

9. Critical eroding and sensitive areas will be fenced out and permanent cover established.

10. An animal waste management system plan shall be developed as required by NRCS standard 561-Heavy Use Protection. The nutrient management plan shall address all the acreage on the participant farms where manure will be applied. The nutrient management plan shall be implemented and maintained for the life of the practice.

11. Tax credit is authorized for; watering facilities, stream exclusion and interior paddock fencing, excavation, and site preparation, geotextile fabric, stone, pipeline, and watering troughs. Tax credit is not authorized for heavy use sacrifice areas that exceed the allowable sizing limitation as outlined in (4) (b), or the designated use requirement in 4 (e).

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 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).

13. This practice is subject to the requirements of applicable NRCS Standards. These may include 342 Critical Area Planting, 362 Diversion, 376 Roofs and Covers, 382 Fence, 391 Riparian Herbaceous Cover, 393 Filter Strip, 412 Grassed Waterway, 516 Livestock Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 558 Roof Runoff Structures, 614 Watering Facilities, and 642 Water Well.

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

2. If a participant receives cost-share payment(s) from another source(s), 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 March, 2018

Name of Practice: ALTERNATIVE WATER SYSTEM
DCR Specifications for No. SL-6B

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

A. Description and Purpose

A structural practice that will provide an alternative water source for livestock to reduce direct deposition of animal waste to waterways. This practice may reduce stream bank erosion and livestock waste reaching the stream.

To provide a livestock watering system, and/or fencing that will improve water quality by discouraging animal access to streams for watering where there is a defined water quality problem. Stream exclusion fencing is an optional component of this practice. The system receiving tax-credit should reflect the least cost, technically feasible, environmentally effective approach to resolve the existing water quality problem.

B. Policies and Specifications

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

2. To protect stream banks, a state tax credit is authorized for:
   i. Fencing to exclude livestock from a stream or waterway is eligible for a tax credit as a stand-alone component or in combination with an alternative water system of this best management practice, no minimum setback distance is required, however the fence must be maintained for the life of the practice.
   ii Hardened stream crossings for livestock watering and grazing distribution, so long as the crossing restricts access to the stream in those fields serviced by the hardened access.
   iii. Fence chargers used to electrify permanent or temporary fencing.

3. To supply water, state tax credit is authorized for:
   i. Construction or deepening of wells if it is the only technically feasible alternative for a water source.
   ii. Development of springs or seeps, including fencing of the area, where needed, to protect the development from pollution by livestock.
   iii. Construction or repair of dugouts, dams, pits, or 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.

iv. Installing pipelines, storage facilities, cisterns, and troughs.

v. 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.

vi. Wells must be provided with pumping equipment (except for artesian wells) and adequate facilities. Tax credits may be issued in connection with wells for pipe installed in the well (including the casing), pumps, pumping equipment, and well houses.

Districts may authorize tax credit 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.

vii. Pumps and equipment associated with portable and permanent watering systems. Pumps may operate on purchased electrical current or alternative energy sources such as solar, battery, mechanical or hydraulic energy. The selected pump 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.

4. Portable or temporary system components (fencing, etc.) cannot be utilized in other areas or moved from fields utilized in the system plan. The replacement costs of portable components which fail to function properly during the lifespan of the practice are considered maintenance expenses and are the responsibility of the participant. A portable water supply system is any system or component (i.e. trough, pipe, etc.) that is:

i. Commercially available or farmer constructed,

ii. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,

iii. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and

iv. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

5. The primary water use of the components which were installed with a state tax credit must be for the purpose of providing water for livestock; however, incidental use is not prohibited. State 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.

6. No state 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.

7. Soil loss rates must be computed for all applications for use in establishing priorities for receiving tax-credit funds.

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

9. This practice is subject to NRCS Standards 382 Fence, 390 Riparian Herbaceous Cover, 472 Access Control, 512 Forage and Biomass Planting, 516 Livestock Pipeline, 528 Prescribed Grazing, 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.

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

2. If an applicant receives any funding assistance, only the amount of the total cost of the project that the applicant contributed is used to determine the tax credit.

D. Technical Responsibility

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

Revised April 2020

Name of Practice: FARM ROAD, ANIMAL TRAVEL LANE, HEAVY USE AREA STABILIZATION
DCR Specification for No. SL-11B

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's farm road, animal travel lane, heavy use area stabilization best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will promote structural and/or management practices that will protect surface water and groundwater recharge areas from pollution from travel ways of farm equipment and livestock or from a winter feeding area.

The purpose of this practice is to protect or maintain water quality by stabilizing travel ways used by farm equipment and/or livestock or from winter feeding area.

B. Policies and Specifications

1. Tax Credit is authorized for:
   i. For land shaping to control water flow coming onto or off the travel ways.
   ii. For material to top travel ways that will prevent erosion.
   iii. For stabilizing travel way banks and other bare areas with vegetation.
   iv. For stream crossings needed to protect stream banks and beds from erosion due to livestock and/or equipment traffic.
   v. For culverts and or bridges to convey water under travel ways.
   vi. For riprap to stabilize stream banks after the installation of a stream crossing.
   vii. For the installation of water bars to safely channel flows away from travel bed.
   viii. For the retro-fit of a concrete slab across the front of existing poultry houses and litter stacking sheds to contain spilled and tracked litter and effect better cleanup (not to finance slabs on new facilities, but to address existing water quality problems).
   ix. For installation of a winter feeding pad when all other means of reducing the environmental impact have been explored and rejected, due to economic inefficacy or lack of space for relocation. Livestock must not have access to surface water or groundwater recharge areas in the field where the pad is located. Fencing and watering facilities necessitated by the protection of the surface and ground water recharge areas may be installed with other VACS BMPs and tax credit practices.
      a. The tax credit is limited to one feeding pad per Tract to be sized according to the existing herd.
      b. A plan for managing the anticipated amount of manure must be developed.

2. Soil loss rates must be computed for all applications for use in establishing priority considerations.

3. This practice is subject to NRCS Standards 342 Critical Area Planting, 382 Fence (only when associated with animal travel lanes), 560 Access Road, 561 Heavy Use Area Protection and 575 Trails and Walkways.

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

2. If a participant receives cost-share, only the participant share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2017

Name of Practice: STREAM CROSSINGS & HARDENED ACCESS
DCR Specifications for No. WP-2B

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

A. Description and Purpose

A stabilized area to provide access to and/or across a stream for livestock and/or farm machinery, to improve water quality by controlling bank and streambed erosion and reducing sediment by providing a controlled crossing and/or access to streams.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For riprap to stabilize the stream bank and bed.
   ii. For pipe to pass water under crossing.
   iii. For concrete and forming work to construct a concrete crossing.
   iv. For excavation work to slope the stream bank to a less erosive slope.

2. All local, state and federal permits must be obtained before construction may begin.

3. Soil loss rates must be computed for all applications.

4. This practice is subject to NRCS Standards 342 Critical Area Stabilization, 560 Access Road, 575 Trails and Walkways, 578 Stream Crossing, and 584 Channel Stabilization.

5. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting 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 § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

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

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: STREAM CHANNEL STABILIZATION
DCR Specification for No. WP-2C

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

A. Description and Purpose

This practice will stabilize the stream channel with the use of non-erodible material and/or structures that will prevent the stream channel from eroding,

The purpose of this practice is to improve water quality by reducing erosion by stabilizing stream channels.

B. Policies and Specifications

1. Tax credit is authorized:
   i. For riprap revetments, rock vortex weirs and other methods needed to stabilize the stream channel.
   ii. For vegetative cover on areas that were disturbed during stream channel stabilization.

2. All appropriate local, state and federal permits must be obtained before tax-credit is authorized.

3. This practice is subject to NRCS Standard 584 Channel Stabilization.

4. All practice components implemented must be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. By accepting 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 § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

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

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: ANIMAL WASTE STRUCTURE PUMPING EQUIPMENT
DCR Specification for No. WP-4E

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

A. Description and Purpose

A mechanism used to agitate and/or pump liquid and/or semi-liquid animal waste for the purpose of land application to insure that animal waste are land applied at the most optimum times so as not to effect water quality.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For the purchase of pumps and/or pumping equipment that will adequately empty animal waste structure for the purpose of land application.
   ii. For the purchase of pumps used to pump animal waste from collection pits to animal waste structures.

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

3. The pump must be sized according to the amount of animal waste generated in any given storage period.

4. A copy of the pumps specifications must be kept with approved application.

5. This practice is subject to NRCS Standards 634 Waste Transfer and 533 Pumping Plant.

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

2. If a participant receives cost-share, only the participant's share of the project 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 2020

Name of Practice: STORMWATER RETENTION POND
DCR Specifications for No. WP-5

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

A. Description and Purpose

A structure that will collect and retain stormwater in order to release the water at a rate that will reduce the amount of downstream erosion due to storm water flow.

The purpose is to improve water quality by reducing the amount of channel erosion during storm events.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For engineering and design assistance.
   ii. For construction of structures that will reduce storm flows in order to reduce the amount of downstream flow.
   iii. For fencing where the structure needs to be protected from livestock.
   iv. For filter strips and other sediment trapping devices to protect the structure from sediment.
   v. For seed and mulch to establish vegetation to protect the structure from erosion.

2. Tax Credit is not authorized for multipurpose structures. The structure and pond must be designed for storm water retention only.

3. This practice is subject to NRCS Standards 342 Critical Area Planting, 350 Sediment Basin, 362 Diversion, 378 Pond, 382 Fencing, and 393 Filter Strip.

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

2. If a participant receives Cost-Share, only the participant's expense of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: SURFACE WATER RUNOFF IMPOUNDMENT FOR WATER QUALITY
DCR Specification for No. WP-7

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's agricultural surface water runoff impoundment for water quality, that are applicable to all contracts, entered into with respect to that practice.

A. Description and Purpose

This practice will promote structures that will impound surface water runoff and allow sediment and nutrients to settle.

The purpose of the practice is to improve water quality by impounding surface water and allowing sediments and nutrients to settle out.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. Earth moving to construct or develop impoundment.
   ii. Vegetation establishment to protect structure from eroding.
   iii. Fencing to protect the structure from livestock.
   iv. For engineering and design assistance.

2. This practice is subject to NRCS Standards 342 Critical Area Planting, 350 Sediment Basin, 362 Diversion, 378 Pond, 382 Fence, 393 Filter Strip, and 472 Use Exclusion.

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

2. If a participant receives Cost-Share, only the participant's expense of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2017

Name of Practice: RELOCATION OF CONFINED FEEDING OPERATIONS FROM ENVIRONMENTALLY SENSITIVE AREAS
DCR Specification for No. WP-8

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's relocation of confined feeding operations from environmentally sensitive areas best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

The relocation of confined feeding operations from areas that have an increased chance of contaminated runoff entering the state's stream, rivers and estuaries.

The purpose of the practice is to improve water quality by relocating confined feeding operations away from environmentally sensitive areas such as sinkholes, streams and rivers to reduce or eliminate the amount of pollution-laden runoff reaching these areas.

B. Policies and Specifications

1. Tax Credit is authorized for:
   i. Using engineered plans for feeding structures available from the MidWest Plan Service (MWPS), the Natural Resources, Agriculture, and Engineering Services (NRAES), or a professional engineer (P.E.).
   ii. Construction of new facilities of equal volume.
   iii. Construction of access to the relocated facility.
   iv. Demolition (only when necessary) and stabilization of the existing facility.

2. The replaced facility must not be used for animal confinement feeding or any other operation that would increase the amount of polluting runoff entering sensitive areas.

3. Tax Credit is not authorized for new startup facilities or expanded portion of any existing or relocated facility.

4. The relocation of a facility must substantially reduce the amount of runoff entering streams, rivers and/or estuaries.

5. A management plan and best management practice design is to be developed with consultation from a VCE Agent, NRCS, and/or District. For a tax credit on feeding structures that exceed $5,000 in cost, plans from MWPS, NRAES, or a P.E. must be used.

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

7. This practice is subject to NRCS Standards 313 Waste Storage Facility, 327 Conservation Cover, 342 Critical Area Planting, 350 Sediment Basin, 356 Dike, 359 Waste Treatment Lagoon, 362 Diversion, 382 Fencing, 393 Filter Strip, 412 Grassed Waterway, 472 Access Control, 516 Pipeline, 558 Roof Runoff Structure, 560 Access Road, 561 Heavy Use Area Protection, 574 Spring Development, 587 Structure for Water Control, 614 Watering Facility, 633 Waste Utilization, and 642 Water Well.

8. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting 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 § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

2. 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.

Name of Practice: CONSTRUCTED WETLANDS
DCR Specifications for No. WQ-6

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

A. Description and Purpose

This practice will promote the construction of a wetland for the treatment of animal waste runoff or stormwater runoff.

The purpose of this practice is to improve water quality by using a constructed wetlands to remove nutrients from animal waste, or sediments and nutrients from stormwater runoff.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For land shaping to develop proper hydrology.
   ii. For aquatic vegetation that promote wetland development.
   iii. For fencing to protect the newly constructed wetland from damage by livestock.
   iv. For material to construct dams and dikes to retain water.

2. Tax Credit is not authorized for wetlands for recreational or promotion of wildlife.

3. For the treatment of stormwater runoff, the wetland shall be sized according to the contributing watershed drainage.

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

5. Tax credit is not authorized for any wetland activity associated with the creation, enhancement or preservation of a wetland that is part of or that becomes part of a wetland mitigation bank or is required by any state or federal permit or local ordinance during the life of the practice.

6. This practice is subject to NRCS Standards; 342 Critical Area Stabilization, 356 Dike, 382 Fence, 587 Structure for Water Control, 634 Waste Transfer, 658 Wetland Creation, and 644 Wetland Wildlife Habitat Management.

7. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. By accepting 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 § 58.1-339.3 and §58.1-439.5, Virginia currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

2. If a participant receives cost-share from any source, only the participant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised April 2019

Name of Practice: WETLAND RESTORATION
DCR Specifications for No. WQ-6B

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

A. Description and Purpose

Activities that restore land to the hydraulic condition that existed prior to 1985 and the installation of drainage systems and conversion to cropland.

To improve water quality by returning environmentally sensitive land back to its original wetland condition before it was converted to cropland.

B. Policies and Specifications

1. Tax Credit is authorized for:
   i. Equipment work needed to completely fill drainage ditches to the original contour.
   ii. Excavation of sections of existing tile drainage.
   iii. Constructing ditch plugs.
   iv. Pipe risers or other structures to control the water level.

2. Tax credit is not authorized for any wetland activity associated with the creation, enhancement or preservation of a wetland that is part of or that becomes part of a wetland mitigation bank or is required by any state or federal, permit or local ordinance during the life of the practice.

3. This practice is subject to NRCS Standards; 342 Critical Area Stabilization, 356 Dike, 587 Structure for Water Control, 644 Wetland Wildlife Habitat Management, 657 Wetland Restoration, and 659 Wetland Enhancement.

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

2. If a participant receives cost-share from any source, only the participant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: IRRIGATION WATER RECYCLING SYSTEM
DCR Specification for No. WQ-7

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

A. Description and Purpose

A system of practices designed to distribute, collect and reuse irrigation water and surface runoff from agricultural fields involved in the production of vegetable and horticultural crops.

The purpose is to improve water quality by collecting and reusing irrigation and surface runoff that may be high in nutrients, sediments, or pesticides from a variety of vegetable and horticultural crops grown using plastic or synthetic fiber mulches and impervious surfaces.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For the construction of reservoirs and/or other irrigation collection pits. This includes all practice components essential to the construction and operation of these facilities. Also includes the spreading of spoil and land smoothing associated with excavated pits.
   ii. For permanent distribution pipe and other installation costs associated with utilizing new or converting existing irrigation facilities into a recovery system.
   iii. For pumping equipment.
   iv. For establishing vegetation to protect the structure(s) from erosion.
   v. For land smoothing, grading, surface drainage, channels, waterways, pipes, and other measures necessary to collect and transport surface flow and irrigation water runoff back into the irrigation facilities.
   vi. Any associated costs in planning, design, and testing by a private contractor, consultants, or engineer of the irrigation system or components.

2. An annual water test is required of the applicant for the lifespan of the practice. Minimum requirements would be to test for nitrogen (nitrate and nitrite), phosphorous, and the specific chemicals used in the operation.

3. The volume of water applied through the irrigation system must be calculated and documented as part of the Irrigation Water Management practices that is required for every system.

4. This practice is subject to NRCS Standards 342 Critical Area Planting, 350 Sediment Basin, 356 Dike, 362 Diversion, 393 Filter Strip, 410 Grade Stabilization Structure, 412 Grassed Waterway, 430 Irrigation Pipeline, 436 Irrigation Storage Reservoir, 449 Irrigation Water Management, 441 Irrigation System, Micro Irrigation, 442 Irrigation System Sprinkler, 447 Irrigation Systems Tail water Recovery, 466 Land Smoothing, 468 Lined Waterway or Outlet, 533 Pumping Plant, 572 Spoil Spreading, 582 Open Channel, 607 Surface Drainage, Field Ditch, 608 Surface Drainage, Main or Lateral, 620 Underground Outlet, and 638 Water and Sediment Control Basin.

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

2. If a participant receives any cost-share, only the participant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2017

Name of Practice: FUEL STORAGE TREATMENT
DCR Specification for No. WQ-8

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

A. Description and Purpose

This practice will promote proper removal of farm underground fuel storage tanks and the construction on an above ground farm fuel storage facility with proper containment system.

The purpose is to improve water quality by removing leaky or possible leaky fuel storage tanks with contaminated soil and replacing it with above ground storage including the proper spill and rupture containment facility.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For excavation to remove underground fuel storage tanks.
   ii. For the removal and treatment of contaminated soil.
   iii. For the construction of an above ground fuel storage facility.
   iv. For the construction of an adequate spill containment facility.

2. Tax Credit is not authorized for the construction of a new fuel storage facility where underground tanks are not replaced.

3. This practice is subject to the specifications for underground fuel storage tank removal of DEQ.

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

2. If a participant receives cost-share from any source, only the participant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: CAPPING/PLUGGING OF ABANDONED WELLS
DCR Specification for No. WQ-9

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's capping/plugging of abandoned wells best management practice, that are applicable to all contracts, entered into with respect to that practice.

A. Description and Purpose

This practice will cap or plug wells with proper materials to prevent surface water or debris from entering abandoned wells.

The purpose of this practice is to stop or prevent the pollution of the groundwater by cleaning and capping, or plugging abandoned wells.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For the removal of debris, casing and/or old pumping equipment from the well that may prevent it from being sealed properly.
   ii. For proper treatment of the well to cleanse it before sealing.
   iii. For proper sealing material and other fill material to seal the well.
   iv. For earth shaping to direct surface water around the capped or plugged well.

2. The structure shall be maintained for a minimum of 10 years following the calendar year of installation. By accepting credit, the recipient agrees to maintain the practice for the specified life. This practice is subject to spot check by the District throughout the practice life and failure to comply may result in forfeiture of credit.

3. This practice is subject to NRCS Standards 351 Well Decommissioning, 382 Fence, and 472 Access Control.

C. Rate

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

2. If a participant receives cost-share from any source, only the participant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: INTEGRATED PEST MANAGEMENT
DCR Specification for No. WQ-10

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

A. Description and Purpose

A procedure to prevent excessive and/or unnecessary application of pesticides to land and/or crops for the control of pests.

The purpose is to improve water quality by scouting fields and/or crops and only applying pesticides when the pest reaches the threshold of economic damage.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For costs associated with scouting for pests by qualified personnel.
   ii. Equipment involved in scouting
      a) Pheromone traps and black light traps
      b) Sweep nets
      c) Sticky traps
      d) Envirocasters

2. Copies of scouting forms must be retained and kept in the producer file.

3. Eligible crops for scouting:
   i. Cotton
   ii. Peanuts
   iii. Soybeans
   iv. Small Grain
   v. Alfalfa
   vi. Corn
   vii. Fruit Orchards
   viii. Ornamentals

4. Cooperative Extension economic threshold criteria will be used.

5. Scouts must demonstrate knowledge of IPM techniques as defined by Cooperative Extension for the crop being scouted.

6. This is an annual practice.

C. Rate(s)

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

2. Tax credit is limited to two years per field. If a participant receives cost-share from any source, only the participant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised March, 2017

VIRGINIA AGRICULTURAL BEST MANAGEMENT PRACTICE VOLUNTARY REPORTING PROGRAM (VRP)

Overview

The goal of the Agricultural (Ag.) Best Management Practices (BMP) Voluntary Reporting Program (VRP) is to encourage voluntary installation and/or data reporting of BMPs that address Virginia's nonpoint source pollution water quality objectives. Eligible BMP are those installed without public funding assistance or are out of contract lifespan and meet the minimum specifications found in the Voluntary BMP Specifications section. Participation in Virginia's agricultural voluntary reporting and/or Resource Management Plan (RMP) program does not convey the public's right to access the participant's property. Furthermore, participation in the Voluntary Reporting and/or Resource Management Plan (RMP) program provides protection from the Freedom of Information Act (FOIA) request.

The applicable Code of Virginia Section as amended follows:

*§ **2.2-220.3**. Development of strategies to collect land use and conservation information.*

*§ **10.1-104.7**. Resource management plans; effect of implementation; exclusions.*

As used in this section, "agricultural best management practice" means a practice approved by the Virginia Soil and Water Conservation Board (VSWCB) which will provide a significant improvement to water quality in the state's streams and rivers and the Chesapeake Bay and is consistent with other state and federal programs that address agricultural, nonpoint-source-pollution management. Eligible practices shall include, but are not limited to, the following:

1. Livestock-waste and poultry-waste management;
2. Soil erosion control;
3. Nutrient and sediment filtration and detention;
4. Nutrient management; and
5. Pest management.

A detailed list of the standards and criteria for practices eligible for credit shall be found in the most recently approved "Virginia Agricultural BMP Manual" published annually prior to July 1 by the Department of Conservation and Recreation.

Documentation

For any practice receiving a credit, the District will require a signed landowner/operator assessment form (Form DCR # 199-206) or a signed landowner/operator RMP signature page,

and the data must be entered into DCR's Ag. BMP Tracking Program or RMP Module. Authorizing personnel will examine supporting data to determine eligible components.

Data Reporting

In order to adequately track program effectiveness and to utilize implementation analysis for program management decisions, it is vital that all data requested be entered into the Ag BMP Tracking Program. The DCR Central Office staff maintains and updates the AgBMP Tracking Program to reflect changes in program data reporting for each program year. The AgBMP Tracking Program is used to track and report data associated to BMP implementation, analysis of completed BMP data provides valuable insight into program effectiveness. Therefore it is important that data entry be as accurate and consistently input as possible.

Data entry into the Ag. BMP Tracking Program for voluntary practices is similar to that for cost-share practices with a few differences mainly on the General tab. The Status for a practice differs in that there are only four available:

- **Under Construction:** The BMP is currently being constructed and will be certified Complete at a later date.
- **Inactive:** The BMP components are still present but the BMP is not currently being used as designed.
- **Inactive – Destroyed:** Components of the BMP have been removed/destroyed and the BMP is no longer functional.
- **Complete:** The BMP has been installed and meets specifications.

The dates captured on the General tab are also different:

- **Reported Practice Installation Date:** Date the original BMP was installed/certified. You can use the Actual Completion Date from the original BMP is it is present.
- **Practice Verification Date:** Date you recertified the BMP was meeting the voluntary BMP specifications.
- **Practice Closed Date:** Date BMP became inactive or was destroyed if the date was before the end of the lifespan. When documenting a voluntary BMP this date will likely be left blank.
- **BMP Assessment Date:** Date participant signed the Assessment Authorization Form.

Also note that you should not be using the "Does Not Meet Specifications" checkbox on the General Tab. If the voluntary BMP does not meet the specifications then it should not be reported under this program.

Inspections and Spot Checks

All approved VRP BMPs are subject to inspection for program compliance during the life span of the practice. Technical inspection and certification are the responsibility of designated

technically responsible personnel (NRCS, District, DOF, and DCR). Random spot checks will be conducted annually by the District Conservation Specialist/Technician under the guidance of the Conservation District Coordinator to determine that the individual practice is still viable. A random 5% sample of each type practice will be spot-checked. Practices to be spot checked will be identified and inspected based upon Chesapeake Bay Program Office (CBPO) approved verification procedures. Spot check report forms should be retained by the District and filed by program year.

Questions

Questions concerning any aspect of the VRP program that are not addressed in this Manual should be directed to the appropriate DCR Conservation District Coordinator, Agricultural Incentives Program Manager, or Resource Management Program Coordinator.

VIRGINIA AGRICULTURAL VOLUNTARY BEST MANAGEMENT PRACTICE (BMP) ASSESSMENT AUTHORIZATION

Land owner or manager having control of the land where BMPs are implemented:

Name: _____ **Phone: (H)** _____ **(M)** _____

Email: _____ **Address:**_____

Person to Contact (if different than above):_____

Phone (H): _____ **(M)** _____ **Email:** _____

I hereby authorize staff from the_____**Soil and Water Conservation District, access to the following farm(s) for purpose of conducting on site assessment(s) of BMPs that may be documented and reported to project reductions of nonpoint source pollutants that impact water quality. Check one:**

____ **SWCD staff must contact me prior to accessing the named farm(s) and performing any site assessment(s) of one or more farms**
____ **SWCD staff have my permission to access the named farm(s) at any time over the next 5 years to perform any site assessment(s) without contacting me**

Farm #1 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #2 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

(Use the reverse side of this sheet if additional farms are authorized for BMP assessment and reporting)

Printed Name of Land owner or manager having control of the land where BMPs are implemented _____

Signature: _____ **Date:** _____

I understand that my authorization remains in effect until I revoke such authorization

Any information collected pursuant to section §2.2-220.3 of the Code of Virginia shall be exempt from the Freedom of Information Act (§2.2-3700 et seq.)
Virginia Department of Conservation and Recreation programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, or political affiliation. An equal opportunity/ affirmative action employer.

Farm #3 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #4 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #5 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #6 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #7 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #8 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #9 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Any information collected pursuant to section §2.2-220.3 of the Code of Virginia shall be exempt from the Freedom of Information Act (§2.2-3700 et seq.)
Virginia Department of Conservation and Recreation programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, or political affiliation. An equal opportunity/ affirmative action employer.

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary 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 documents trees planted (hardwoods and/or conifers) on land used as crop, hay, or pastureland in order to make a permanent land use conversion to forest within the last 15 years.

The purpose of this practice is to document voluntary tree establishment 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. Forestland being replanted following timber harvest is not eligible.

2. Gullied or eroded areas shall be stabilized with a temporary or suitably durable grass cover until trees are established. Pure stands of fescue are discouraged due to tree establishment competition. Plantings must be protected from grazing.

3. The practice must not be in lifespan from any other conservation program.

4. Soil loss rates must be computed for all applications.

5. 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. Department of Forestry can recommend appropriate species.

6. This practice is subject to the specifications outlined in the NRCS standards Tree & Shrub Establishment (612) and Tree/Shrub Site Prep (490).

7. All practice components implemented should be maintained for a minimum of 5 years. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. 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.

C. Technical Responsibility

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

Revised March, 2018

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary woodland buffer filter area best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A woodland buffer filter area is a permanent area of trees, usually accompanied by shrubs and other vegetation, that is adjacent to a body of water and is managed to maintain the integrity of stream channels and shorelines; to reduce the impact of upland sources of pollution by trapping, filtering and converting sediments, nutrients and other chemicals; to supply food, cover and thermal protection to fish and other wildlife (From Virginia's Riparian Buffer Implementation Plan; July 1998).

The purpose of this practice is to document and maintain land use change that has occurred within the last 15 years and maintain a riparian forest buffer to provide streambank protection and to control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality. This practice will also maintain riparian forest areas to benefit wildlife and aquatic environments.

B. Policies and Specifications

1. This practice will maintain buffer areas as a forested zone along streams for protection and filtering of agricultural non-point source pollution from up gradient agricultural production land.

2. The practice must not be in lifespan from any other conservation program.

3. Soil loss rates must be computed for all applications.

4. The acceptance of prior cost-share assistance for the establishment of the buffer (site preparation, seedlings, labor, etc.) does not render the site ineligible, so long as the lifespan of the establishment practice has expired.

5. This practice is designed to maintain riparian forest buffers adjacent to and buffering cropland and pastureland. Buffer areas that are coming out of an agricultural BMP practice lifespan are eligible. Forestland that has been replanted following timber harvest is not eligible.

6. Flash grazing (allowing livestock to graze the excluded riparian area) is not allowed as a management alternative during the lifespan of this practice. No mowing is allowed in the buffer area.

7. Strip Width - Minimum width of the wooded buffer will be a minimum width of 35 feet from the edge of the stream bank.

8. This practice is subject to the specifications as outlined in NRCS 391 Riparian Forest Buffer Standard.

9. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the calendar year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY WOODLAND EROSION STABILIZATION
DCR Specifications for No. VFR-4

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary woodland erosion stabilization best management practice, which are applicable to all contracts, entered into with respect to that practice.

A. Description and Purpose

This practice will document land shaping and planting of permanent vegetation on critically eroding areas on forest harvesting sites.

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

B. Policies and Specifications

1. Documentation of measures needed to stabilize a source of sediment, such as grading, shaping, and filling, the establishment (including soil amendments such as fertilizer and lime) of grass and legumes, vehicle barriers and fencing needed to protect the established area, and other similar measures that are practical for the solution of the problem.

2. The practice must not be in lifespan from any other conservation program.

3. Soil loss rates must be computed for all applications.

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

5. This practice is not intended to correct problems currently being created by an active logging operation which is not applying the required BMPs. Sites are eligible for this practice from one to fifteen years after timber product harvesting activities are completed.

6. Grazing livestock on established areas is prohibited.

7. Areas established should be protected from vehicle traffic. This practice is not intended for roadways that receive infrequent but regular use. All stabilized areas must have some type of vehicle barrier (cable, chain, posts, etc.).

8. This practice is subject to NRCS Standard No. 342 Critical Area Planting or "Forestry BMPs for Water Quality in Virginia".

9. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary split application of nitrogen on corn using pre-sidedress nitrate test (PSNT) to determine the need for sidedress nitrogen when organic sources of nitrogen have been previously applied practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

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

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

B. Policies and Specifications

1. Eligibility:
   i. Eligibility for this practice is limited to the length of the plan recommending the sidedress practice.
   ii. Farmer must keep a written verification (such as a work order, bill or field records) to document the application.
   iii. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   iv. 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. Checks to insure compliance with this practice may be conducted by the District or appropriate agency personnel.

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

4. Total nitrogen to be applied to the cornfield must be consistent with the nutrient management plan or determined by using a PSNT consistent with procedures contained in the Nutrient Management Training and Certification Regulations, 4 VAC 50-85 et. seq.

5. This is an annual practice.

6. The practice must not be in lifespan from any other conservation program.

C. Technical Responsibility

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

Revised March, 2018

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Voluntary Late Winter Split Application of Nitrogen on Small Grains practice that 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 at this time of year 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. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   ii. District staff should utilize the NMP maps, nutrient balance sheets, and summary sheets to confirm conservation practice implementation. A comparison between crop recommendations and in field conditions shall be used when certifying conservation practice compliance. A copy of the current nutrient management plan and the nutrient application field record sheet shall be maintained in the participant's practice folder.

2. Practice Development
   i. On fields that have organic sources of nitrogen applied during the crop year or in previous years, or if high residual nitrogen levels are suspected from a previous crop, fall nitrogen rates should be determined by a nitrate test.
   ii. Late winter nitrogen to be applied to the small grain field must be determined by using the criteria contained in the *Virginia Nutrient Management Standards and Criteria, revised July 2014*.

3. Practice Implementation

i. To insure the impact of nitrogen to ground and surface waters is minimized in small grain production, at planting and midwinter nitrogen rates and application shall follow recommendations contained in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014.*

ii. Compliance with this practice may be conducted by the District or appropriate agency personnel throughout the life of the practice.

iii. Sample collection for any soil nitrate tests in the fall, tissue tests, or tiller counts should be done by the plan developer or an employee of the plan developer, or the farmer.

iv. In lieu of tiller counts and tissue tests, as listed in the *Virginia Nutrient Management Standards and Criteria, revised July, 2014,* late winter split application of nitrogen must not exceed 40# of nitrogen for the first application and must not exceed 50# of nitrogen for the second application.

v. For late winter split application of nitrogen, the two applications must be at least 30 days apart with the first application no earlier than growth stage 25, with nitrogen rates determined based on tiller counts and tissues tests as explained in the *Virginia Nutrient Management Standards and Criteria revised July, 2014*.

vi. This is an annual practice.

C. Technical Responsibility

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

Revised March, 2018

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

A. Description and Purpose

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

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

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

B. Policies and Specifications

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

2. At least one of the following identified components must be implemented.

   i. Soil (pre-sidedress) nitrate test (PSNT)
   ii. Variable rate nitrogen applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
   iii. Variable rate or zone application of nitrogen on row crops or small grains
   iv. Multiple (more than two) split applications of nitrogen on corn, cotton and small grains.
   v. More than two applications of nitrogen on highly managed hayland production systems (other than alfalfa).

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

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

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

6. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

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

8. The producer **shall** maintain written verification of the recommendation and the resulting application(s) (examples include but are not limited to: results of laboratory test, a work order or bill; and as-applied application map of field) to verify that the recommendations were followed.

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

C. Technical Responsibility

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

Revised March, 2018

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

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of phosphorous management in the field than existing standard nutrient management practices. This practice is limited to row crops and highly managed hayland including alfalfa hay production systems.

This practice supports multiple enhanced nutrient management components such as; zone or grid soil fertility samples and all variable rate phosphorous application technologies based upon the soil test results of zone or grid (subfield) sampling. This practice may only be used on fields that apply phosphorous based upon test results identified in section B. 2. whether they have organic nutrient applications or not, with the exception of biosolids applications.

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

B. Policies and Specifications

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

2. Phosphorous applications must be based upon the soil test results of zone or grid (subfield) sampling recommendations; other macro-micro nutrients may be applied concurrently.

   Plant tissue samples or petiole samples must be submitted at the correct growth stage and handled in accordance with laboratory guidelines to ensure sample viability and usability. The results of these tests may be used by the participant to support this practice

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

4. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

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

6. The producer **shall** maintain written verification of the recommendation and the resulting application(s) (examples include but are not limited to: results of laboratory test, a work order or bill; and as-applied application map of field) to verify that the recommendations were followed.

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

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY VEGETATIVE STABILIZATION OF MARSH FRINGE AREAS
DCR Specifications for No. VSE-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary vegetative stabilization for marsh fringe areas practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A protection method for eroding tidal shoreline that establishes a fringe marsh buffer area for shoreline stabilization.

The purpose of this practice is to document or establish a natural and environmentally acceptable fringe buffer of selected marsh grasses to provide toe stabilization protection on tidal waters.

B. Policies and Specifications

1. All appropriate local, state, and federal permits must be obtained.

2. All marsh grass species must be planted/transplanted following the guidelines (spacing, depth, etc.) provided by DCR.

3. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

4. The practice must not be in lifespan from any other conservation program.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY STREAM EXCLUSION
DCR Specifications for No. VSE-5

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary stream exclusion with or without grazing land management best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will record voluntary livestock exclusion fences that will exclude livestock from perennial streams and/or intermittent waterways, areas of streambank fenced out and/or areas where grazing is improved. It may enhance or protect vegetative cover to reduce runoff of nutrients and some sediment from existing pastureland and therefore reduces NPS pollution associated with grazing livestock.

The purpose of this practice is to document stream exclusion and setback/buffer practices undertaken by producers without any financial assistance. The practice provides alternative fencing that will improve water quality by eliminating direct access to surface waters; however, the fence does not need to meet any specifications except that it is a permanent functioning livestock exclusion system.

B. Policies and Specifications

1. This practice is limited to pastureland that borders a perennial or intermittent stream or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. Exception to this may be granted in cases of severe environmental degradation occurring in and around features such as, seeps, ponds, wetlands, or sinkholes, etc.

2. Grazing (including flash grazing) is not allowed in the protected riparian area during the lifespan of this practice.

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY LONG TERM VEGETATIVE COVER ON CROPLAND
DCR Specifications for No. VSL-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary permanent vegetative cover on cropland best management practice that are 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 hay land to reduce soil erosion and enhance water quality.

This practice is intended to document and promote conversion of cropland to fields with a healthy, well-maintained sod.

B. Policies and Specifications

1. This practice is not intended to be used to reseed or improve hay or pastureland.

2. Pastures and hay lands that are planted under this practice should be grazed or harvested and maintained in accordance with NRCS Standard 512 for the lifespan. This practice is subject to spot-check by the District throughout the life of the practice.

3. Fertility - Lime and fertilizer should be applied for establishment purposes in accordance with current soil test recommendations (at VPI cooperative extension establishment 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. Test results must be part of practice documentation. Nutrient application should not exceed the recommendations of *the Virginia Nutrient Management Standards and Criteria, revised July, 2014.*

4. This practice is subject to NRCS Standard 512 Forage and Biomass Planting.

5. All practice components implemented should be maintained for a minimum of 5 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. This practice is subject to spot check by the District throughout the lifespan of the practice.

6. Soil loss rates must be computed for all applications.

7. The practice must not be in lifespan from any other conservation program.

8. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY STRIPCROPPING SYSTEMS
DCR Specifications for No. VSL-3

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

A. Description and Purpose

This practice will promote growing crops in a systematic arrangement of strips or bands across the general land slope to reduce water erosion and nutrient loss.

The purpose of this practice is to document and improve water quality by reducing the movement of sediment and nutrients from cultivated crop fields where other cultural and management practices alone are not adequate to reduce losses to tolerable limits.

B. Policies and Specifications

1. On acreage devoted to row crops, one of the following must apply:
   i. The crop stubble or residue must be left on the land during the winter.
   ii. A winter cover crop must be established.
   iii. Adequate protective tillage operations must be performed.

2. For contour stripcropping systems, tillage and planting operations must be performed as nearly as practical on the contour.

3. This practice is subject to NRCS Standard 585 Contour Strip Cropping.

4. Soil loss rates must be computed for all applications.

5. The practice must not be in lifespan from any other conservation program.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

7. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY BUFFER STRIPCROPPING
DCR Specifications for No. VSL-3B

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

A. Description and Purpose

A series of narrow permanent protective strips of sod alternating with wider strips of row or close growing crops implemented to reduce erosion and surface runoff and improve surface water quality.

B. Policies and Specifications

1. This practice is subject to NRCS Standard 332 Contour Buffer Strips.

2. Soil loss rates must be computed for all applications.

3. The practice must not be in lifespan from any other conservation program.

4. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

5. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures. Revised March, 2018

Name of Practice: VOLUNTARY TERRACE SYSTEMS
DCR Specifications for No. VSL-4

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

A. Description and Purpose

An earth embankment, channel, or a combination ridge and channel constructed across the slope.

To document and improve water quality by reducing slope and slope length to one that will slow the movement of sediment and nutrients from cropland.

B. Policies and Specifications

1. This practice may include:
   i. Terraces and the necessary leveling and filling to permit installation of an effective system.
   ii. Removal of stonewalls or hedgerows if necessary to permit installation of an effective system.
   iii. Materials and installation of underground pipe outlets and other mechanical outlets.
   iv. Necessary vegetative protective outlets or waterways.

2. A protective outlet or waterway that is installed solely as an outlet for the terrace system and serves no other conservation purpose should be cost-shared as a component of this practice. A protective outlet or waterway which, by itself solves a conservation problem, but also serves as an outlet for a terrace system, should be counted under practice VWP-1 or VWP-3.

3. This practice is subject to NRCS Standard 600 Terrace.

4. Soil loss rates must be computed for all applications.

5. The practice must not be in lifespan from any other conservation program.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

7. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY DIVERSIONS
DCR Specifications for No. VSL-5

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

A. Description and Purpose

A channel with a supporting ridge on the lower side constructed across the general land slope.

To improve water quality by directing nutrient and sediment-laden water from large areas to sites where it can be used or disposed of safely.

B. Policies and Specifications

1. This practice may include:
   i. Diversions, ditches, or dikes. Subsurface drains may be installed where necessary for the proper functioning of the diversion.
   ii. Installation of structures such as pipe, chutes, underground outlets, or other outlets, if needed, for proper functioning of a ditch or dike, for more even flow, or to protect outlets from erosion.
   iii. Necessary leveling and filling to permit installation on an effective system.
   iv. Removing portions of stonewalls or hedgerows if necessary to permit establishment of the practice.

2. This practice does not include ditches or dikes designed to impound water for later use, or that will be a part of a regular irrigation system.

3. Cost-share and tax credit with the same person is limited to once on the same acreage.

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

5. This practice is subject to NRCS Standard 362 Diversions.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY STREAM EXCLUSION WITH GRAZING LAND MANAGEMENT
DCR Specifications for No. VSL-6

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

A. Description and Purpose

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

To document and provide livestock water systems, fencing and/or a hardened pad for winter-feeding that will improve water quality control erosion and eliminate direct access to or a direct runoff input to live streams where there is a defined water quality problem. **Stream exclusion fencing is a required component of this practice**. Rotational grazing is an optional enhancement of this practice.

B. Policies and Specifications

1. This practice is limited to pastureland that borders an intermittent or perennial stream or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. 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. A written management plan, to include a rotational grazing component should be developed if more than three new grazing units are created by the installation of interior fencing, and operation and maintenance plans should be prepared and followed in accordance with NRCS FOTG. Factors to be addressed in the management plan should include water sources, environmental impact of winter-feeding pad location, runoff from the feeding pad area, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

3. Grazing (including flash grazing) is not allowed in the protected riparian area during the lifespan of this practice.

4. To protect stream banks, this practice may include:
   i. Fencing to restrict stream access in connection with newly developed watering facilities. The stream exclusion fence must be placed a minimum of 35 feet away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.

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

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.

iv. Watering facilities including:

a. troughs,
b. tanks/storage facilities/cisterns,
c. hydrants

v. Pipelines to convey water to watering facilities.

vi. Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.

vii. Portable water supply system components such as troughs, pipe, etc. that are:

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

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

6. Soil loss rates must be computed for all applications.

7. The practice must not be in lifespan from any other conservation program.

8. This practice is subject to NRCS Standards, 390 Riparian Herbaceous Cover, 533 Pumping Plant, 512 Forage and Biomass Planting, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 516 Livestock Pipeline, 472 Access Control, and 642 Water Well.

9. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY SMALL ACREAGE GRAZING SYSTEM
DCR Specifications for No. VSL-6A

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

A. Description and Purpose

To reduce soil erosion in pastures and prevent those areas exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover, and eliminate direct access to, or a direct runoff input to live streams where there is a defined water quality problem.

Small acreage grazing systems frequently require the use of a heavy use area to remove livestock from pastures in wet conditions or when the pastures need to rest and recover. These sacrifice area paddocks quickly become denuded of vegetation and may harbor undesirable plants. Conditions in these paddocks are often unfavorable to livestock as well as the surrounding environment due to the build-up of manure in the paddock and the erosion that may take place on denuded soil.

The intent of this practice is to prevent manure and sediment runoff from a heavy use area and pastures from entering watercourses and to capture a portion of the manure as a resource for other uses such as fertilizer. This is accomplished by dividing the pasture into grazing paddocks. Livestock is rotated from paddock to paddock as is necessary to maintain a permanent vegetative cover. One lot is stabilized and designated as a heavy use area for use in periods of wet weather and when the grass in the grazing paddocks needs to rest and re-grow to the appropriate grazing height.

B. Policies and Specifications

1. This Best Management Practice (BMP) cannot compensate for over stocking. A stocking rate of no greater than two (2) animal units (1,000-pound equivalent) per acre must be maintained throughout the life span of the practice.

2. A grazing management plan, practice design, and operation and maintenance (O & M) plan are to be developed with consultation from a VCE Agent specializing in the alternative livestock (if available) and NRCS and/or District.

3. A minimum of three grassed grazing paddocks is required.

4. A heavy use area is required.

   i. Manure, hay, bedding, and other organic materials must be removed from the sacrifice area at intervals outlined in the operation and maintenance

plan. The sacrifice area must be maintained in a sanitary condition that does not allow for the accumulation of manure or the creation of mud.

ii. The sacrifice area should be sized to allow 600 to 1,000 square feet per animal unit (1,000-lb. equivalent). Consideration should be given to the age, sex, breed, and behavioral characteristics of the animals when determining the final size and number of sacrifice areas needed. The heavy use area shall be sloped not to exceed 10% maximum.

iii. Divert surface water and roof runoff away from the sacrifice area.

iv. Provide filtering of runoff from the heavy use area.

v. The primary use of the heavy use area shall be within the purpose of establishing a small acreage grazing system. Design considerations shall not be given to its use as a riding or exercise area or any purpose other than to perform its water quality benefit.

5. Each grassed grazing paddock will be sized based on soil type, topography and herd size and be maintained in at least 80% coverage of permanent forage.

6. Livestock must be excluded from all streams. A minimum 35-ft.wide vegetated buffer shall be maintained directly adjacent to all streams, ponds, and other watercourses.

7. Walkways may be installed to facilitate herd movement from the barn to the heavy use area and grazing paddocks. Walkways are to be designed in accordance with NRCS standard 575 (Animal Trails and Walkways).

8. In order for the forage in the grass paddocks to take up nutrients such as nitrogen it must be managed for growth and harvested for hay or pasture.

9. Critical eroding and sensitive areas will be fenced out and permanent cover established.

10. An animal waste management system plan shall be developed as required by NRCS standard 561-Heavy Use Protection. The nutrient management plan shall address all the acreage on the participant farms where manure will be applied. The nutrient management plan shall be implemented and maintained for the life of the practice.

11. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

12. The practice must not be in lifespan from any other conservation program.

13. This practice is subject to the requirements of applicable NRCS Standards. These may include 561 Heavy Use Area Protection, 342 Critical Area Planting, 362 Diversion, 575 Trails and Walkways, 391 Riparian Herbaceous Cover, 393 Filter Strip, 412 Grassed Waterway, 516 Pipeline, 528 Prescribed Grazing, 558 Roof Runoff Structures 574 Spring Development, 580 Stream bank and Shoreline Protection, and 614 Watering Facilities.

14. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY ALTERNATIVE WATER SYSTEM
DCR Specifications for No. VSL-6B

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

A. Description and Purpose

A structural practice that will provide an alternative water source for livestock to reduce direct deposition of animal waste to waterways. This practice may reduce stream bank erosion and livestock waste reaching the stream.

To document and provide a livestock watering system, and/or fencing that will improve water quality by discouraging animal access to streams for watering where there is a defined water quality problem. Stream exclusion fencing is an optional component of this practice.

B. Policies and Specifications

1. This practice is limited to pastureland that borders a perennial or intermittent stream or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. Exception to this may be granted in cases of severe environmental degradation occurring in and around features such as, seeps, ponds, wetlands, or sinkholes, etc.

2. To protect stream banks this practice may include:

   i. Fencing to exclude livestock from a stream or waterway as a stand-alone component or in combination with an alternative water system of this best management practice, no minimum setback distance is required.
   ii Hardened stream crossings for livestock watering and grazing distribution, so long as the crossing restricts access to the stream in those fields serviced by the hardened access.
   iii. Fence chargers used to electrify permanent or temporary fencing.

3. To supply water this practice may include:

   i. Construction or deepening of wells if it is the only technically feasible alternative for a water source.
   ii. Development of springs or seeps, including fencing of the area, where needed, to protect the development from pollution by livestock.
   iii. Construction or repair of dugouts, dams, pits, or 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.

iv. Installing pipelines, storage facilities, cisterns, and troughs.

v. 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.

vi. Wells must be provided with pumping equipment (except for artesian wells) and adequate facilities.

vii. Pumps and equipment associated with portable and permanent watering systems. Pumps may operate on purchased electrical current or alternative energy sources such as solar, battery, mechanical or hydraulic energy. The selected pump and associated equipment should be the most cost effective for the specific site and application.

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

   i. Commercially available or farmer constructed,

   ii. Large enough to provide a timely and sufficient volume of water for the livestock to be contained in a specific area for which the system is designed,

   iii. Capable of being maintained in a stable position and protected from any damage while the system or component is in use, and

   iv. Capable of being moved in a timely manner from one location to another within the acreage for which the system is designed.

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

6. Soil loss rates must be computed for all applications.

7. The practice must not be in lifespan from any other conservation program.

8. This practice is subject to NRCS Standards 528 Prescribed Grazing, 390 Riparian Herbaceous Cover, 533 Pumping Plant, 512 Forage and Biomass Planting, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 516 Pipeline, 472 Access Control, and 642 Water Well.

9. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. This practice is subject to spot check by the District throughout the lifespan of the practice.

10. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary protective cover for specialty crops best management practice, that are applicable to all contracts, entered into with respect to that practice.

A. Description and Purpose

This practice is to keep a cover on cropland 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 are defined as:
i) Vegetables
ii) Tobacco
iii) Small grains

2. A good stand and good growth of cover must be obtained in sufficient time to protect the area. The seeding must be planted and certified by November 30. 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.

3. Pasturing consistent with good management may be permitted. No vegetative growth may be harvested for hay or seed.

4. 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 *Brassica* (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.**

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

6. Soil loss rates must be computed for all applications.

7. The practice must not be in lifespan from any other conservation program.

C. Technical Responsibility

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

Revised March, 2018

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's small grain cover crop for nutrient management and residue management best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice is to document and establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater.

This practice is 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 source are allowed between the harvesting of the previous crop and March 1 of the next calendar year. No nutrients are allowed at planting.

3. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

4. A good stand and good growth of vegetative winter cover must be obtained by December 1 to protect the area from nutrient leaching and runoff in the fall and winter, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice. (Ongoing research in Virginia's coastal plain indicates that a cereal grain crop with 30 plants per square foot of field planted with two tillers per plant (60 tillers per sq. ft.) by December 1 provides the optimum biomass for scavenging excess nitrogen while protecting the soil from erosion).

5. All seed must be free of prohibited noxious weed seed, have a minimum germination rate of 80% and have no more than 16 restricted noxious weed seeds per pound. If the grower elects to use home grown seed, it must be tested for purity, germination and noxious weeds prior to seeding by a recognized seed laboratory.

6. The practice is intended 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 cover crops environmental benefit in Virginia. The SL-8B is not intended to subsidize crops produced for commodity purposes.

7. 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.**

8. 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 *Brassica* (canola/rape)	5 -7 lbs./acre°
mixture with annual rye grass	10 lbs./acre

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch
°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

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

9. 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)	October 25	November 15
Piedmont	October 10	November 1
Mountain and Valley	October 5	October 25

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

11. The cover crop must be killed using mechanical or chemical means or by grazing no earlier than **March 15** and no later than **May 15 for the coastal plain, piedmont, and mountain and valley**. The cover crop residue may be left on the field for conservation purposes; or the cover crop or its residue may be tilled under. The practice will be considered complete once the cover crop has served its purpose and been killed.

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY COMMODITY COVER CROP
DCR Specifications for No. VSL-8D

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary small grain cover crop for nutrient management and residue management best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice is to document and establish vegetative cover on cropland for protection from erosion and the reduction of nutrient losses to groundwater. Harvesting for hay, haylage, silage, grain, or seed is permitted after March 14. Early and standard planting dates are allowed.

This practice provides 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. 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.

2. A good stand and good growth of vegetative winter cover must be obtained by December 1 to protect the area from nutrient leaching and runoff in the fall and winter, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres from December 1 through the lifespan of the practice. (Ongoing research in Virginia's coastal plain indicates that a cereal grain crop with 30 plants per square foot of field planted with two tillers per plant (60 tillers per sq. ft.) by December 1 provides the optimum biomass for scavenging excess nitrogen while protecting the soil from erosion).

3. All seed must be free of prohibited noxious weed seed, have a minimum germination rate of 80% and have no more than 16 restricted noxious weed seeds per pound. If the grower elects to use home grown seed, it must be tested for purity, germination and noxious weeds prior to seeding by a recognized seed laboratory.

4. The practice is intended 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 cover crops environmental benefit in Virginia.

5. 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.

6. 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 *Brassica* (canola/rape)	5 -7 lbs./acre°
mixture with annual rye grass	10 lbs./acre

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch
°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings

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

7. 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)	October 25	November 15
Piedmont	October 10	November 1
Mountain and Valley	October 5	October 25

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

9. Soil loss rates must be computed for all applications.

10. The practice must not be in lifespan from any other conservation program.

11. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

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

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

A. Description and Purpose

This cover crop may be harvested after of the requirements of this specification have been met.

This practice is 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.

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. 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. 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) on up to 300 acres is permitted if all of the following conditions are met:
   i. animals are raised as part of the applicants operation,
   ii. inadequate manure storage is available for the winter,
   iii. there are no other vegetated acres available to safely utilize the manure, and
   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. A good stand and good growth of vegetative winter cover must be obtained by December 1 to protect the area from nutrient leaching and runoff in the fall and winter, with the exception of the cities of Chesapeake and Virginia Beach that have late November planting dates. All cover crop plantings must maintain a minimum of 60% cover crop plant material on the enrolled acres through the lifespan of the practice. (Ongoing research in Virginia's coastal plain indicates that a cereal grain crop with 30 plants per square foot of field planted with two tillers per plant (60 tillers per sq. ft.) by December 1 provides the optimum biomass for scavenging excess nitrogen while protecting the soil from erosion).

6. The practice is intended 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 cover crops environmental benefit in Virginia. The SL-8H is designed to provide year round vegetative cover on as much acreage as possible.

7. 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.

8. 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.

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

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

† - legume = Crimson Clover, Austrian Winter Pea or Hairy Vetch
°Use higher seeding rates for pure stands and lower seeding rates for mixed species plantings.

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

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

Area	Early Planting Date	Standard Planting Date
Cities of Chesapeake & VA Beach	November 10	November 30
Coastal Plain (including the Eastern Shore)	October 25	November 15
Piedmont	October 10	November 1
Mountain and Valley	October 5	October 25

11. All seed must be free of prohibited noxious weed seed, have a minimum germination rate of 80% and have no more than 16 restricted noxious weed seeds per pound. If the grower elects to use home grown seed, it must be tested for purity, germination and noxious weeds prior to seeding by a recognized seed laboratory.

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

13. 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

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY GRAZING LAND MANAGEMENT
DCR Specification for No. VSL- 9

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary grazing land management best management practice, that is applicable to all contracts, entered into with respect to 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 to native plants (e.g. switchgrass or other native warm season grasses), and which are managed using agronomic practices for livestock.

A. Description and Purpose

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

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

B. Policies and Specifications

All fields under this practice must 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 Field Office Technical Guide (FOTG).

1. The system developed with this practice must meet the following requirements:

   i. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

ii. Maintain adequate nutrient and pH levels to improve or maintain desired forage species composition, plant vigor, and persistence. Lime shall be applied in accordance with soil test recommendations.

2. Locate infrastructure to facilitate grazing management and manure distribution.

   i. Manage the type and number of livestock, 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 ≥ 60% year round and pasture stand density to increase rainfall infiltration and decrease runoff from pasture lands 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 moving 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. 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 should be replanted in accordance to NRCS standard 512 Forage and Biomass Planting. Replanting will be at the participant's expense.

3. This practice is subject to the requirements of NRCS standards, 512 Forage and Biomass Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection, and 614 Watering facilities.

4. Soil loss rates must be computed for all applications.

5. The practice must not be in lifespan from any other conservation program.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

United States Department of Agriculture
Natural Resources Conservation Service

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

[1]Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.
[2]Grazing 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: VOLUNTARY PERMANENT VEGETATIVE COVER
ON CRITICAL AREAS
DCR Specifications for No. VSL-11

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. This practice may include:
   i. Measures needed to stabilize a source of sediment, such as grading, shaping, and filling.
   ii. The establishment (including minerals) of grasses (including filter strips), trees or shrubs, and similar measures that are determined to be practical for the solution of the problem.
   iii. Measures that will significantly reduce erosion and maintain, or improve the quality of water in a stream, lake, pond, or other water source.
   iv. Measures performed on public roadsides only where these measures are essential to solve a farm-based pollution or conservation problem.

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

3. This practice is subject to NRCS Standard 342 Critical Area Planting.

4. Soil loss rates must be computed for all applications.

5. The practice must not be in lifespan from any other conservation program.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY FARM ROAD, ANIMAL TRAVEL LANE, HEAVY USE AREA STABILIZATION
DCR Specification for No. VSL-11B

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary farm road, animal travel lane, heavy use area stabilization best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will document structural and/or management practices that will protect surface water from pollution from travel ways of farm equipment and livestock.

The purpose of this practice is to protect or maintain water quality by stabilizing travel ways used by farm equipment and/or livestock.

B. Policies and Specifications

1. This practice may include:
   i. land shaping to control water flow coming onto or off the travel ways
   ii. material to top travel ways that will prevent erosion
   iii. stabilizing travel way banks and other bare areas with vegetation
   iv. stream crossings needed to protect stream banks and beds from erosion due to livestock and/or equipment traffic
   v. culverts and or bridges to convey water under travel ways
   vi. riprap to stabilize stream banks after the installation of a stream crossing
   vii. installation of water bars to safely channel flows away from travel bed
   viii. concrete slab across the front of existing poultry houses and litter stacking sheds to contain spilled and tracked litter and effect better cleanup

2. This practice is subject to NRCS Standards 342 Critical Area Planting, 560 Access Road, 561 Heavy Use Area Protection, 575 Trails and Walkways, and 580 Stream Bank and Shoreline Protection.

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

5. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of implementation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary sediment retention, erosion, or water control structures best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

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

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

B. Policies and Specifications

1. This practice may include:
   i. Sediment detention or retention structures, such as erosion control dams (excluding water storage dams), desilting reservoirs, sediment basin, debris basins, or similar structures.
   ii. Channel linings, chutes, drop spillways, and pipe drops that better manage excess water.
   iii. Fencing or otherwise protecting a vegetative cover (including mulching needed to protect the structure) and for leveling and filling to permit the installation of the structure.
   iv. Sediment retention structures on public roadsides only where these structures are essential to solve a farm based pollution or conservation problem.

2. Consideration should be given to the needs of wildlife when establishing the protective measures.

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

5. Direct discharge of runoff from crop fields, without filtering, is not allowed under this specification. A 10' minimum grass filter must be provided at the pipe inlet in the form of an apron adjacent to the pipe or a permanently vegetated diversion or waterway.

6. This practice is subject to the specifications of NRCS Standards 350 Sediment Basin, 362 Diversion, 382 Fence, 410 Grade Stabilization Structure, 468 Lined Waterway or Outlet, 606-Subsurface Drain, 620-Underground Outlet, and 638 Water and Sediment Control Basin. When a subsurface drain is used in conjunction with this practice, a wetlands determination shall be performed prior to installation.

7. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY STREAMBANK STABILIZATION
DCR Specifications for NO. VWP-2A

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary streambank stabilization best management practice that 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 nonpoint sources.

The purpose of this practice is to change land use, provide vegetative stabilization or improve management techniques to more effectively control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality.

C. Policies and Specifications

1. This practice may contain:
   i. Vegetative work. This includes temporary seedings as well as permanent herbaceous, woody, or shrub species. Riprap when it is used to secure the slope's toe only. Structural measures such as gabions, walls or riprap on side slopes, if needed in conjunction with vegetative work.
   ii. Grading and shaping of the bank to achieve proper slope and seeding conditions.
   iii. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to 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. Stream banks bordering only agricultural and forestall lands. Other lands such as recreational, urban and built-up or residential lots are not eligible.
   v. Stream bank stabilization performed under the practice shall be protected from damage by livestock and equipment. For fencing, the **VSE-5 Voluntary Stream Exclusion** practice must be used.
   vi. Only freshwater streams are eligible. All appropriate local, state and federal permits must be obtained before cost-share can be authorized.

2. Consideration must be given to wildlife and environmental issues when designing the practice.

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

5. This practice is subject to NRCS standards if utilized on a site specific basis: 342 Critical Area Planting, 472 Use Exclusion, 575 Trails and Walkways, 578 Stream Crossing, 580 Stream bank and Shoreline Protection, and 612 Tree /Shrub Establishment.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY STREAM CROSSINGS & HARDENED ACCESS
DCR Specifications for No. VWP-2B

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

A. Description and Purpose

A stabilized area to provide access to and/or across a stream for livestock and/or farm machinery, to improve water quality by controlling bank and streambed erosion and reducing sediment by providing a controlled crossing and/or access to streams.

B. Policies and Specifications

1. This practice may contain:
   i. riprap to stabilize the stream bank and bed;
   ii. pipe to pass water under crossing;
   iii. concrete and forming work to construct a concrete crossing; and
   iv. excavation work to slope the stream bank to a less erosive slope.

2. All local, state and federal permits must be obtained before construction may begin.

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

5. This practice is subject to NRCS Standards 342 Critical Area Stabilization, 560 Access Road, 575 Trails and Walkways, 578 Stream Crossing, and 584 Channel Stabilization.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

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

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

A. Description and Purpose

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

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

B. Policies and Specifications

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

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

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

5. This practice is subject to NRCS Standard 412 Grassed Waterways.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY ANIMAL WASTE CONTROL FACILITIES
DCR Specifications for No. VWP-4

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

A. Description and Purpose

A planned system designed to manage liquid and/or solid waste from areas where livestock and poultry are concentrated. This practice is designed to provide facilities for the storage and handling of livestock and poultry waste and the control of surface runoff water 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.

To improve water quality by storing and spreading waste at the proper time, rate and location, and/or to control erosion and nutrient input caused by winter-feeding operations located adjacent to riparian areas.

B. Policies and Specifications

1. This practice may contain animal waste storage facilities, such as dry stacking, dry stacking storage**,** aerobic or anaerobic lagoons, liquid manure tanks, 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.

   i. Fencing and vegetative cover (including mulching needed to protect the facility). Fencing can be included for livestock exclusion from live and intermittent streams in concentrated holding and winter-feedin***g*** areas.
   ii. Leveling and filling to permit the installation of an effective system.

2. Animal waste facilities must meet local or State regulations.

3. All applicants must have:

   i. Design 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.

ii. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

iii. A manure test for nutrient analysis.

4. All appropriate local and state permits must be obtained.

5. The practice must not be in lifespan from any other conservation program.

6. This practice is subject to NRCS standards Comprehensive Nutrient Management Plan (CNMP), which include NRCS Standards 313 Waste Storage Structure, 316 Animal Mortality Facility, 342 Critical Area Planting, 359 Waste Treatment Lagoon, 362 Diversion, 367 Roofs and Covers, 412 Grassed Waterway, 558 Roof Run Off Management, 561 Heavy Use Protection, 575 Trails and Walkways, 620 Underground Outlet, 633 Waste Recycling and 634 Waste Transfer.

7. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

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

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

A. Purpose and Description

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

The intent of this practice is to prevent manure and sediment runoff from entering watercourses and sensitive karst areas and to capture a portion of the manure as a resource for other uses such as crop fertilizer. This is accomplished by dividing the area into lots. The cattle are rotated from lotto lot as is necessary to maintain a vegetative cover. One lot is designated as a sacrifice area for use in periods of wet weather.

B. Policies and Specifications

1. A management plan and practice design is to be developed with consultation from a qualified consultant, VCE, NRCS and/or District.

2. A minimum of three grassed loafing paddocks are required. Each grassed loafing paddock will be sized based on soil type, topography and herd size not to exceed a stocking rate of twenty (1,000 lb. EAU) cattle per acre and be maintained in permanent forage.

3. Concrete walkway(s) with curbing or other hardened walkway(s) may be installed to facilitate herd movement from the barn to the loafing lots. Slope is to be no greater than 8%. See VCE publication on installing dairy lanes.

4. A sacrifice area is required unless adequate housing facilities are available (e.g. free stall barns).
   i. Sacrifice area (if needed) must be scraped periodically.
   ii. The sacrifice area should not be sized to exceed 600 to 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.

5. 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.

6. Critical eroding and sensitive areas will be fenced out and permanent cover established.

   i. If a sacrifice lot is impractical due soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot.
   ii. General Design guidelines for Loose Housing Structures
      a) Bedded pack space requirements:
         1) 60 sq. ft. per heifer minimum
         2) 100 sq. ft. per lactating cow minimum
         3) 120 sq. ft. per dry cow

7. Soil loss rates must be computed for all applications.

8. The practice must not be in lifespan from any other conservation program.

9. For Structural Design Specifications for Loose Housing Structures refer to NRCS Standard 313 Waste Storage Facility, 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 614 Watering Facility, 620 Underground Outlet, 633 Waste Recycling, 634 Waste Transfer and 642 Water Well.

10. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

11. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY COMPOSTER FACILITIES
DCR Specifications for No. VWP-4C

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

A. Description and Purpose

A planned system designed to manage treatment and disposal of poultry and swine carcasses resulting from normal mortality to improve water quality by composting poultry and swine carcasses from normal mortality 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 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 poultry and swine mortality carcasses.

   All applicants must have:

   i. A written operation and management plan for each composting structure.
   ii. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   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 permits 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).

2. This practice may include:
   i. 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.
   ii. Prefabricated composting facilities including drum composting facilities.

3. The practice must not be in lifespan from any other conservation program.

4. This practice is subject to NRCS Standards 313 Waste Storage Facility, 316 Animal Mortality Facility, 317 Composting Facility, 362 Diversion, 367 Roofs and Covers, 382 Fence, 558 Roof Runoff Structure, 561 Heavy Use Area, 620 Underground Outlet, 633 Waste Recycling, and 634 Waste Transfer.

5. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. <u>Technical Responsibility</u>

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

Revised March, 2018

Name of Practice: VOLUNTARY ANIMAL MORTALITY INCINERATOR FACILITIES
DCR Specifications for No. VWP-4F

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary animal mortality incinerator facility that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A planned mortality incineration system that will dispose of poultry and livestock carcasses resulting from other than catastrophic disease.

B. Policies and Specifications

1. Implementation of an incineration facility to protect and improve water quality by encouraging better mortality and nutrient management by incinerating poultry and livestock carcasses that have resulted from normal mortality and spreading or properly disposing of the residual material at the proper time, rate, and location.

2. This practice is 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. All applicants must have:

   i. A written operation and management plan for each incineration facility.
   ii. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
   iii. A method of disposal of the residual from the incineration facility that does not increase NPS contamination of state waters if a nutrient management plan is not required for that residual.

4. Permit compliance. 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.

5. The practice must not be in lifespan from any other conservation program.

6. Practice Standards. This practice is subject to the NRCS Standards 316 Animal Mortality Facility, 317 Composting Facility, 367 Roofs and Covers, 558 Roof Runoff Structure, 620 Underground Outlet, 633 Waste Utilization and 634 Waste Transfer.

7. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2018

Name of Practice: VOLUNTARY SURFACE WATER RUNOFF IMPOUNDMENT FOR WATER QUALITY
DCR Specification for No. VWP-7

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary agricultural surface water runoff impoundment for water quality that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will promote structures that will impound surface water runoff and allow sediment and nutrients to settle.

The purpose of the practice is to improve water quality by impounding surface water and allowing sediments and nutrients to settle out.

B. Policies and Specifications

1. This practice is subject to NRCS Standards 378 Pond, 393 Filter Strip, 362 Diversion, 350 Sediment Basin, and 342 Critical Area Planting, 472 Use Exclusion.

2. Soil loss rates must be computed for all applications.

3. The practice must not be in lifespan from any other conservation program.

4. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY GRASS FILTER STRIPS
DCR Specification No. VWQ-1

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

A. Description and Purpose

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

This practice will document grass filter strips that are located adjacent to cropland and permanent hayland.

B. Policies and Specifications for grass filter strips for water quality

1. Filter strips planned for sediment and related pollutant control are subject to the following state specifications. Grass filter strips shall be designed and installed to filter sheet flow, rather than concentrated flow. If concentrated flow will occur, land smoothing or the use of some other BMP or combination of BMPs may be required (such as grassed waterways and structures for water control).

   Filters must be a minimum 35' in width.

2 Filters must be located within 100-feet of a perennial or intermittent waterway, open sinkhole, abandoned well or Chesapeake Bay Preservation Act Resource Protection Area as defined by local ordinance. An intermittent waterway is considered as being, but not limited to, any channel or flood prone area where periodic water flow or storage is diverted by surface drainage.

   All trees, stumps, brush, rocks and similar materials that may interfere with installing the filter strip should be removed. The materials should be disposed of in a manner that will not degrade the quality of the environment or interfere with the proper functioning of the filter strip.

3. No-till planting is preferable. If grading is necessary, conventional equipment can be used for preparing the seedbed, fertilizing and maintenance.

4. Lime and fertilize according to soil test to assure proper establishment. Established filter strips shall not receive any applications of nitrogen or phosphorus.

5. Hayland is considered cropland if it is in rotation with row crops during the 5-year life span of the grass filter strip.

6. Soil loss rates must be computed for all applications.

7. The practice must not be in lifespan from any other conservation program.

8. Select an appropriate planting mix for filtering runoff and protecting water quality from the NRCS Plant Establishment Guide for Virginia.

9. Maintenance
   i. In cropland, a vegetative filter strip should be maintained on each side of the watercourse.
   ii. Protect the filter strip from damage by livestock.
   iii. Do not use as a roadway.
   iv. Avoid operations that leave tillage or wheel marks.
   v. Woody stems should not be allowed to exceed 2 inches in diameter.
   vi. Avoid damaging filter area with herbicides.
   vii. Hay may be harvested from grass filter strips.

10. Filter strips planned for runoff from concentrated livestock areas or controlled overland flows for the treatment of liquid wastes are subject to NRCS Specification 393 Filter Strip. This practices subject to NRCS Standards 393 Filter Strip, 466 Land Smoothing, and 572 Spoil Spreading and Leveling.

11. All practice components including the vegetative cover implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

12. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

C. Technical Responsibility

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

Revised March, 2018

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

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

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

a. Determine the length (lfs) and width (ft) for calculating the area (acres) of the filter strip. Acres will be the extent technically authorized.

b. Using RUSLE2, determine soil loss occurring in the field. Place this erosion rate in under the Sheet and Rill (tons/ac/yr) erosion reduction field in the Tracking Program

Step 2: Determine trapping efficiency of the filter area.

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

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

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

Area x Erosion Rate x SDR = Delivered Sediment Load

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

Sediment Load x Trapping Coefficient = Sediment Trapped

Use one of the following coefficients for your calculations:

Strip Width	Coefficient
35'	0.35
50'	0.50
100'	0.75

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

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

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

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

Step 2: Trapping efficiency

a. Delivered Sediment

$$\frac{\text{Length of filter strip (1,000) x Length of Slope (250)}}{43{,}560}$$

$$\frac{1{,}000 \times 250}{43{,}560} = 5.7 \text{ acres of contributing field}$$

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

5.7 x 6 x 0.5 = Delivered Sediment Load of 17.1

b. Trapping coefficient

Sediment Load (17.1) x Trapping Coefficient (0.5) = 8.55

Round 8.55 up to 9 and place under Gross Erosion Reduction.

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

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary legume cover crop best management practice that 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.

B. Policies and Specifications

1. 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. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).

2. 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 July 2014).

3. 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 N based upon the results of a PSNT may be applied as well.

4. Removal of the legume residue by baling or by any other means is not allowed. Grazing is not permitted for this practice.

5. 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.

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 insure 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 remain

OR

d) Broadcast as long as 30% of previously crop residue remain

6. Legume cover crop must be left on surface intact to serve as mulch for the no-till planting of grain crops.

7. Soil loss rates must be computed for all applications.

8. The practice must not be in lifespan from any other conservation program.

9. 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.

10. 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. Technical Responsibility

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

Revised March, 2018

Nitrogen Reduction Form for VWQ-4 Certification

District Name: _____

Printed Applicants Name:_____

Applicants Address: _____

Nitrogen Reduction

Fields	Acreage	(lbs/ac)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I hereby certify that the above information relating to nitrogen reduction from my normal or recommended application rates is true and correct.

_____ (Applicant's Signature)

_____ (date)

Name of Practice: VOLUNTARY IRRIGATION WATER RECYCLING SYSTEM
DCR Specification for No. VWQ-7

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

A. Description and Purpose

A system of practices designed to distribute, collect and reuse irrigation water and surface runoff from agricultural fields involved in the production of vegetable and horticultural crops.

The purpose is to improve water quality by collecting and reusing irrigation and surface runoff that may be high in nutrients, sediments, or pesticides from a variety of vegetable and horticultural crops grown using plastic or synthetic fiber mulches and impervious surfaces.

B. Policies and Specifications

1. An annual water test is required of the applicant for the lifespan of the practice. Minimum requirements would be to test for nitrogen (nitrate and nitrite), phosphorous, and the specific chemicals used in the operation.

2. The volume of water applied through the irrigation system must be calculated and documented as part of the Irrigation Water Management practices that is required for every system.

3. Soil loss rates must be computed for all applications.

4. The practice must not be in lifespan from any other conservation program.

5. This practice is subject to NRCS Standards 342 Critical Area Planting, 350 Sediment Basin, 356 Dike, 362 Diversion, 393 Filter Strip, 410 Grade Stabilization Structure, 412 Grassed Waterway, 436 Irrigation Storage Reservoir, 449 Irrigation Water Management, 430 Irrigation Pipeline, 436 Irrigation Storage Reservoir, 441 Irrigation System, Micro-Irrigation, 442 Irrigation System Sprinkler, 466 Land Smoothing, 447 Irrigation Systems Tail water Recovery, 468 Lined Waterway or Outlet, 533 Pumping Plant, 552 Irrigation Regulating Reservoir, 572 Spoil Spreading, 582 Open Channel, 607 Surface Drainage, Field Ditch, 608 Surface Drainage, Main or Lateral, 620 Underground Outlet, and 638 Water and Sediment Control Basin.

6. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY INTEGRATED PEST MANAGEMENT
DCR Specification for No. VWQ-10

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

A. Description and Purpose

A procedure to prevent excessive and/or unnecessary application of pesticides to land and/or crops for the control of pests.

The purpose is to improve water quality by scouting fields and/or crops and only applying pesticides when the pest reaches the threshold of economic damage.

B. Policies and Specifications

1. This practice may include:
   i. Pheromone traps and black light traps
   ii. Sweep nets
   iii. Sticky traps
   iv. Envirocasters

2. Copies of scouting forms must be retained and kept in the producer file.

3. Eligible crops for scouting:
   i. Cotton
   ii. Peanuts
   iii. Soybeans
   iv. Small Grain
   v. Alfalfa
   vi. Corn
   vii. Fruit Orchards
   viii. Ornamentals

4. Cooperative Extension economic threshold criteria will be used.

5. Scouts must demonstrate knowledge of IPM techniques as defined by Cooperative Extension for the crop being scouted.

6. The practice must not be in lifespan from any other conservation program.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY AGRICULTURAL SINKHOLE PROTECTION
DCR Specifications for No. VWQ-11

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

A. Description and Purpose

This practice will provide a protection method to improve groundwater quality from surface contamination.

The purpose of this practice is to improve water quality by removing sources of pollution from sinkholes and providing an adequate buffer to trap and filter sediments and nutrients from surface flows that enter the groundwater through sinkholes.

B. Policies and Specifications

1. This practice may contain:

   i. Measures to remove and properly dispose of all foreign materials and debris dumped in and around sinkholes.
   ii. Structural and agronomic measures to provide adequate vegetation for filtering and sediment trapping of surface run off.
   iii. Fencing in order to provide livestock exclusion and personal safety in these areas.

2. Consideration should be given to wildlife, any rare, threatened and/or endangered species (federal or state), and enhancing the appearance of the area when establishing the protective measures.

3. Site geology and hydrology must be considered in planning and installing component practices. Any openings such as swallets or cave entrances encountered with the installation of this practice will be documented and reported to The Department of Conservation and Recreation Division of Natural Heritage.

4. All debris (except biodegradable woody debris, rocks, and other mineral matter) removed from the sinkhole will be transported off site and disposed of in an environmentally safe manner. Should any hazardous material be anticipated or found during construction, local officials dealing with hazardous materials must be notified. Prevention methods, such as on site "over pack" drums, may be required if hazardous materials are known to exists at the site.

5. Once established, no additional debris or material can be placed within the sinkhole proper or within 50 feet of the drainage ways leading into the sinkhole. Deposition of any foreign material will violate the life span requirements of this standard.

6. All land disturbance activity will be adequately stabilized with appropriate vegetation as part of this cleanup effort. Appropriate vegetation will include, whenever possible, native grasses and shrubs.

7. This practice is subject to NRCS Standard 500 Obstruction Removal, 342 Critical Area Planting, 362 Diversion, 390 Riparian Herbaceous Buffer, 391 Riparian Forest Buffer, 393 Filter Strip, 472 Access Control, and 612 Tree and Shrub Establishment.

8. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

9. Soil loss rates must be computed for all applications.

10. The practice must not be in lifespan from any other conservation program.

C. Technical Responsibility

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

Revised March, 2016

Name of Practice: VOLUNTARY ROOF RUNOFF MANAGEMENT SYSTEM
DCR Specifications for No. VWQ-12

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary roof runoff management system best management practice, which are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

A planned system designed to manage roof runoff from agricultural structures in areas where concentrated runoff creates a water quality concern. This practice is designed to collect, control and convey precipitation runoff from a roof to an appropriate discharge area in a way that will protect water quality.

To protect water quality by capturing roof runoff and routing it away from contaminated and/or sensitive areas to control erosion and nutrient input.

B. Policies and Specifications

1. This practice may contain gutters, down spouts, snow and ice retaining systems, collector pipes, subsurface drains, underground outlets, diversions, channels, waterways, designed filter strips, land shaping, and similar measures needed as part of a system to manage roof runoff.

2. This practice is eligible for credit only if the planned system will contribute significantly to protecting the water quality by keeping roof runoff away from contaminated and/or sensitive areas.

3. This practice is subject to NRCS standards: 362 Diversion, 558 Roof Runoff Structure, 561 Heavy Use Protection, 342 Critical Area Planting, 393 Filter Strip, 412 Grassed Waterway, 468 Lined Waterway or Outlet, 606 Subsurface Drain, and 620 Underground Outlet.

4. All practice components implemented should be maintained for a minimum of 5 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. This practice is subject to spot check by the District throughout the lifespan of the practice.

C. Technical Responsibility

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

Revised March, 2016

CONSERVATION RESERVE ENHANCEMENT PROGRAM (CREP)

Overview

The Commonwealth of Virginia and USDA agreed in June of 2000 to implement a Conservation Reserve Enhancement Program (CREP). Virginia CREP utilizes financial incentives from state and federal sources to encourage farmers to enter into a contract with the USDA Farm Service Agency (FSA) to remove environmentally sensitive land from agricultural production. There are two geographical components to the Virginia CREP program. The Chesapeake Bay portion of Virginia CREP is directed at the area of Virginia draining to the Chesapeake Bay. The other portion of Virginia CREP is directed at the area of Virginia that drains Outside of the Chesapeake Bay (OCB), which is also known as the Southern Rivers for this Program. Combined, both components had an original goal of enrolling and restoring 35,000 acres of riparian buffers and wetlands in the program by the end of calendar year 2012. The OCB CREP has added an additional 5,000 acres to its enrollment goal, making the statewide enrollment goal 40,000 acres.

Specific goals are as follows:

Chesapeake Bay:

1) 22,000 acres of riparian area treatment; and
2) 3,000 acres of wetlands restored.

Outside Chesapeake Bay:

1) 13,500 acres of riparian area treatment (includes supplemental 5,000 acres approved in March of 2005); and
2) 1,500 acres of wetlands restored.

Expected Benefits

There are expected to be significant water quality and wildlife habitat improvements including:

1) The reduction of over 500,000 lbs. of nitrogen per year.
2) The reduction of over 66,000 lbs. of phosphorus per year.
3) The reduction of over 33,000 tons of sediment per year.
4) The substantial enhancement of wildlife habitat and the preservation of biological diversity, including threatened and endangered species.

CREP Cost-share Funding for FY2021

In Fiscal Year 2021 which begins July 1, 2020, the Commonwealth will pay 35% cost-share for select **CREP practices.** The availability of federal Practice Incentive Payments (PIP), Signing Incentive Payments, and where applicable, Chesapeake Bay Incentive Payments (CBIP) will assure that implementation these practices will provide nearly 85% reimbursement of approved cost to the participant.

In order to ensure the availability of adequate state matching funds, the following process will be used for CREP practice applications:

1) FSA will notify the Department when CREP applications are received;
2) The Department will verify that state match funds are available and will notify FSA; and
3) FSA will follow established procedure regarding District notification and CREP application approvals.

District Board of Directors shall only approve CREP cost-share applications after funding availability has been verified by the Department.

Program Area

Eligible counties and hydrologic units are shown on a CREP eligibility map available from the DCR CREP website: https://www.dcr.virginia.gov/soil-and-water/image/crep-ineligible-2019.png.

Program Eligibility

FSA is responsible for determining producer eligibility. The basic eligibility criteria for the existing CRP will apply. Cropland must have a cropping history for four out of the last six years. NRCS will verify land eligibility by visiting each proposed CREP site while developing a Farm Conservation Plan and laying out the CREP buffer. Permanent hay land and forested land is not considered cropland for this program.

Municipalities or other governmental agencies are not eligible to receive the Virginia portion of CREP rental and cost-share assistance. Lands located outside of the state are not eligible. The minimum Virginia CREP contract accepted is a tenth (.1) of an acre.

The CREP and Virginia Agricultural Best Management Practices Cost Share Program (VACS) are in general mutually exclusive conservation programs; practices addressing the same resource concerns may not be applied simultaneously in the same field. However, there are three VACS practices that are exceptions to this and are allowed to be applied for simultaneously with other CREP practices; those practices are SL-7 (Extension of Watering Systems), SL-11 (Permanent Vegetative Cover on Critical Areas), and WP-2A (Streambank Stabilization).

CREP Enrollment

Beginning July 1, 2016 Districts are advised to require participants with approved FSA CREP contracts to sign VA Contract Part I. A signature on this documentation establishes the contractual relationship between the program participant and the District. This contractual relationship is needed to assure that Districts have the right to request the return of all or part of the state CREP cost-share financial assistance and/or tax credit payments if the conservation practice(s) is/are removed or not properly maintained in accordance with program requirements during the lifespan of the practice(s).

CREP participants must also sign the Contract Part III, "Participant Practice Installation Certification" prior to the release of the state's portion of the CREP cost-share and rental payment.

CREP and The Chesapeake Bay Preservation Act (the Act) and The Chesapeake Bay Preservation Area Designation and Management Regulations (the Regulations)

The Regulations require the protection of surface waters from agricultural runoff by requiring buffers extending landward from the top of bank on all agricultural lands adjacent to identified Resource Protection Areas (RPA). The width of the required buffer is dependent upon the number and types of agricultural BMPs that are implemented on the agricultural lands that contribute runoff. If at least three BMPs (Nutrient Management, Conservation Tillage and Integrated Pest Management) are being implemented on the upland production areas, the required 100 foot buffer may be reduced to 25 feet in width beginning at the top of the protected water feature's bank within the Resource Protection Area (RPA). The VACS Program does not provide financial incentives for minimum actions that are mandated under law or regulation. Therefore, Districts should only pay an incentive on 10 feet of a required minimum width (35') CREP buffer, as the first 25 feet of buffer is required under the Regulations. Other CREP cost-share payments should not be impacted as neither the buffer planting nor the protection of the buffer area is required under the Regulations.

Eligible Practices

The continuous sign-up CRP program offers several different practices. However, the Virginia CREP presently only offers four of these practices as listed below. The following entries will be made into the AgBMP Tracking Module. Please remember that the average buffer width for any buffer practice should be recorded in the Tracking Program.

1) **CP-21** CREP Grass Filter Strip Rent (Tracks state funds spent enhancing the FSA rental payment): Thirty-five feet (35') minimum and one hundred feet (100') maximum, on cropland only. CREP participants may plant Native Warm Season Grasses (NWSG) on cropland. This BMP will record the number of acres of buffer restored, the site location, and state's enhancement of FSA's rental payment. The rental payment may be made after all state conservation practices have been installed and certified by NRCS. The state's portion of the rental payment is calculated based upon the FSA SIP payment calculation as follows: (Buffer Acres) X ($5) X (Full years in CREP Contract*) = State Rental Payment (*as documented in field 9, "contract period" of the CRP-1).

   AND

   CRWQ-1 CREP Herbaceous Riparian Buffers: Native Warm Season Grass (NWSG) filter strips are authorized to be planted under CREP CP-21 practice. This BMP records the site location, acres, and the state's portion of the cost-share payment for planting of the NWSG filter strip.

   OR

   CRFR-3 CREP Woodland Buffer Filter Area: Records the site location, acres, average buffer width and state's portion of cost-share for the planting of hardwood seedlings needed to restore Riparian Forest Buffers (RFB). Any naturally regenerated buffers (i.e. those buffers restored without planting seedlings) should be recorded using this practice code.

   AND

   CRLF-1 CREP Linear Foot of Streambank Protected: This code is entered as a reporting

marker to capture the linear feet of streambank that was protected by the installation of the NWSG filter strip. The entry of the linear feet of streambank protected by the installation of the filter strip, forested buffer or natural regeneration of a forested buffer allows the state to receive credit for restoring linear feet of riparian buffer since there is no fencing practice to install.

OR

CRWP-2 CREP Stream Protection: if any fencing is installed to protect the NWSG buffer.

2) **CP-22** CREP Riparian Forest Buffer (Tracks state funds spent enhancing the FSA rental payment): Thirty-five feet (35') minimum, and three hundred feet (300') maximum on marginal pastureland or cropland. This BMP will record the number of acres of buffer restored and the state's enhancement of FSA's rental payment for riparian forest buffers on marginal pastureland or cropland. The rental payment can be made after all state conservation practices have been installed and certified by NRCS. The state's portion of the rental payment is calculated based upon the FSA SIP payment calculation as follows: (Number of buffer acres planted) X ($5 per year) X (number of full years in the CREP contract) (as documented in field 9, "contract period" of the CRP-1).

AND

CRFR-3 CREP Woodland Buffer Filter Area: Records the site location, acres, average buffer width and state's portion of cost-share for the planting of hardwood seedlings needed to restore Riparian Forest Buffers (RFB). Any naturally regenerated buffers (i.e. those buffers restored without planting seedlings) should be recorded using this practice code.

AND

CRSL-6 CREP Stream Exclusion with Grazing Land Management: Records the site conditions, linear feet of streambank protected and the state's portion of the cost-share payment for alternative watering systems installed as a livestock water source and fencing installed to protect restored riparian buffers or implement rotational grazing.

OR

CRWP-2 CREP Stream Protection: Records the site conditions, linear feet of streambank protected and the state's portion of the cost-share payment on fencing and alternative watering systems that utilize hardened crossings as a livestock water source.

OR

CRLF-1 CREP Linear Foot of Streambank Protected: This code is entered as a reporting marker to capture the linear feet of streambank that was protected by the installation or natural regeneration of a forested buffer that is not protected by a fencing practice (CRSL-6 or CRWP-2 above). The entry of the linear feet of streambank protected by the restoration of the buffer allows the state to receive credit for restoring that many linear feet of riparian buffer when there is no fencing practice to install.

AND/OR

CRWQ-11 CREP Agricultural Sinkhole Protection: Should be reported when CREP is applied to karst pasture sinkholes; practice removes and disposes of non- woody sources of pollution from sinkholes only. Fencing and buffer plantings to protect the sinkhole should be reported as a CRSL-6 or CRWP-2 as appropriate and CRFR-3 respectively.

AND

SL-7 Virginia Agricultural Best Management Practice cost share program funded (VACS) practice that provides an incentive to extend any CREP CP-22 watering systems to adjacent grazing paddocks that did not contribute acreage to the CREP buffer restoration (for Chesapeake Bay CREP farm conservation plans signed after July 1, 2009 only).

Starting with the 2010 program year in the Chesapeake Bay CREP and 2012 in the OCB CREP, the Virginia Agricultural BMP Cost Share Program support for extension of CREP watering system practice **(SL-7)** may be utilized. In an effort to fully enroll CREP, the Virginia Agricultural BMP Cost-Share Program has chosen to provide financial support to expand the CREP installed watering systems to serve grazing units that did not provide any acres to the CREP buffer restoration. The SL-7 practice will be recorded in the AgBMP Tracking Module as a VACS practice; the expenses associated with the support of these watering systems cannot be used as part of the required state enhancement payment associated with CREP implementation.

SL-7 Extension of Watering Systems. Payment of VACS funds will be authorized from either CB or OCB BMP cost-share funds and may be used to install grazing management fencing, pipelines, and water developments in adjacent pastures that are ineligible for CREP. An NRCS approved prescribed grazing plan and operations and maintenance plan must include all grazing paddocks where either CREP or VACS cost shared components are installed.

3) **CP-23** CREP Wetland Restoration Rent if the wetland restoration will exceed 40 acres. NRCS must recommend that the land be enrolled under the CP-23 and the not-to-exceed 40-acre limitation be waived because of the environmental benefits.

AND

CRWQ-6B CREP Wetland Restoration: Records the site location, acres of wetlands restored, average buffer width and state's portion of the cost-share payment. The acres of buffer and wetland should be combined when reporting this CREP practice only.

AND

CRFR-3 CREP Woodland Buffer Filter Area: Records the site location, acres, average buffer width and state’s portion of cost-share for the planting of hardwood seedlings. Any naturally regenerated buffers (i.e. those buffers restored without planting seedlings) should be recorded using this practice code.

4) **CP-29** CREP Wildlife Habitat Buffer (Tracks state funds spent enhancing the FSA rental payment: fifty feet (50’) minimum and one hundred and twenty foot (120’) maximum on marginal pasture. This BMP will record the acres and state's portion of the rental payment for a “Marginal Pasture Land Wildlife Habitat Buffer”. The payment can be made after all state conservation practices have been installed and certified by NRCS. The state’s portion of the rental payment is calculated following the FSA SIP payment calculation as follows: (Number of buffer acres planted) X ($5 per year) X (number of full years in the CREP contract) (as documented in field 9, “contract period” of the CRP-1).

AND

CRWQ-1 CREP Herbaceous Riparian Buffers: Herbaceous buffers are planted under this CREP practice. This BMP records the site location, acres, average buffer width and state's portion of the cost-share payment for planting of a herbaceous buffer.

AND

CRSL-6 CREP Stream Exclusion with Grazing Land Management: Records the site location, linear feet of streambank protected and the state's portion of the cost-share payment for alternative watering systems that utilize ponds, spring developments, or wells as a livestock water source.

OR

CRWP-2 CREP Stream Protection: Records the site location, linear feet of streambank protected and the state's portion of the cost-share payment on fencing and systems that utilize hardened crossings as a livestock water source.

OR

CRLF-1 CREP Linear Foot of Streambank Protected: Reporting marker for entering the linear feet of streambank protected into the Tracking Program by removing of livestock from marginal pastureland when no fencing is installed or the planting of a riparian buffer (CRFR-3) on cropland.

OR

CRWQ-11 Agricultural Sinkhole Protection: Should be reported when CREP is applied to karst pasture sinkholes; practice removes and disposes of non-woody sources of pollution from sinkholes only. Fencing and buffer plantings to protect the sinkhole should be reported as a SL-6 or WP-2 and CRFR-3 respectively.

All CREP Best Management Practices are subject to applicable NRCS *Field Office Technical Guide* standards as itemized in Technical Specifications Section of the *Virginia Agricultural BMP Manual.* The CREP practices will be administered using the same processes and administrative procedures as identified in the VACS Program guidelines, except as otherwise expressly provided in this document.

Program Sign-up

Applicants wishing to participate in the Virginia CREP must sign-up at the local FSA county office by completing a CRP-2. The FSA county office will inform the local District of the applicant's intent and supply the District with all necessary documentation.

Participant Notification

The FSA county office will notify each applicant of his/her eligibility. If eligible, and aware of the CREP application, the local District office will notify the applicant of estimated cost share payment of the approved Virginia CREP contract. This will prevent an over allocation of funds by establishing an approved maximum payment based on the estimated cost.

Payments

Virginia CREP contracts are to be implemented with a combination of funding from state and federal sources. State payments are issued by Districts and must reflect the appropriate cost-share and rental rates for the program. Payments are issued after FSA has completed FSA form 848 and submitted copies to the District. State cost-share payments for CREP BMPs will be issued after all components of the specific state BMPs are completed according to the state requirements as listed in this CREP Section of the *Virginia Agricultural BMP Manual*. State rental payments for CREP will be issued when all BMPs in the CREP contract are complete and certified by the District.

Cost Share Rate

FSA's CREP cost share rate for applicable BMPs is based upon 50% of the eligible cost for component installation, not to exceed a maximum amount for certain components such as water developments, pipeline, and watering facilities implemented. This cost estimate is generated by the local NRCS conservationist and supplied to FSA on the contract support document.

Virginia has modified its cost share rate several times throughout the life of CREP. All cost share rate changes have been based upon the date of the last signature obtained on the Farm Conservation Plan developed for the CREP project.

Additional state cost share was authorized for practices identified in a Farm Conservation Plan signed on or after July 1, 2009.

Rates

Starting July 1, 2019, Virginia will pay up to 35% of eligible cost for select CREP practices. For these practices, calculations will be made to determine the least costly alternative: 35% of FSA eligible cost or a state cost share payment equal to 70% of the FSA authorized cost-share payment.

Rental Rate

FSA will determine the federal CREP Rental Rate to be paid based upon approved soil rental rates (SRR) for each county.

Cropland:	A weighted average SRR for the three predominant soils on the eligible acreage offered.
Pastureland:	The county average soil rental rates for marginal pasture.

A 150% incentive payment will be added to the approved FSA county SRR as well as a $5 per acre per year maintenance fee. However, rental rates and associated payments are capped at a maximum of $100/acre in the Chesapeake Bay basin and $90.00/acre in the Southern Rivers basin.

The Commonwealth of Virginia will also pay a rental rate of $5 per acre per full year of the CREP contract as a lump sum to be paid when all BMPs are completed and certified.

Federal CREP Incentive Payments

A federal Signing Incentive Payment (SIP) will be paid by FSA; this onetime payment will equal $100 per acre. The SIP payment will be made when the CREP contract (CRP-1) has been approved and signed by the program participant.

A federal Practice Incentive Payment (PIP) will be paid by FSA on CP-21, CP-22, and CP-29 conservation practices; this one-time payment will equal 40% of the eligible cost of each component of an approved conservation practice. FSA will issue the PIP payment after all components of approved conservation practices have been completed and certified by NRCS.
A federal Hydrologic Bonus Payment will be paid by FSA on CP-23 conservation practices; this one-time payment will equal 25% of the eligible cost of the approved cost of restoring the wetland hydrology on prior converted wetlands and farmed wetlands. FSA will issue the Hydrologic Bonus payment after all components of approved conservation practices have been completed and certified by NRCS.

Receipt of the above approved federal incentive payments should not be considered during calculations to determine state cost share or tax credit amounts.

State CREP Incentives

Virginia has provided additional financial bonuses as incentives to increase the rate of enrollments of certain practices that provide desirable environmental benefits and support environmental goals.

Beginning July 1, 2011, approved OCB CP-22 practices may be approved to receive a VACS SL-7 practice incentive payment that may be utilized to expand the CREP watering system in the CREP eligible OCB and Chesapeake Bay drainage basins. Previously approved CREP contracts, i.e. signed prior to July 1, 2011, may not be cancelled and re-approved to take advantage of this additional funding.

State Documentation

Districts will retain all supporting data in their files according to the following unless notified by the Department. This will include signed copies of DCR Form 199-071, Contract Part I and Part III.

> Districts must file their copy of all CREP related forms within the participant's folder. Conservation Plans and practice design sheets should be kept with individual case files according to NRCS policy. Districts shall keep copies of the appropriate FSA forms (CRP-1 and appropriate 848(s)), the USDA Conservation Plan, and a copy of DCR form 199-071 or Parts I, II, and III of the Virginia BMP Incentives Program Contract in the participant's folder. The District should reference the signed 848 on the Virginia BMP Incentives Program Contract Part II (statement of technical need) and Part III (participant and technical practice certification signature areas).

FSA will keep all billings and expense records.

Districts must provide an Internal Revenue Service Form 1099-G to any Virginia CREP participant who receives $600 or more in state payment(s) per their federal taxpayer identification number or social security number during the calendar year. Districts must also file IRS Form 1099-G and Form 1096 with the Internal Revenue Service in accordance with IRS regulations.

Data Reporting

In order to adequately track program effectiveness and to make necessary management decisions, it is vital that all data requested in the AgBMP Tracking Module be generated and entered into the Module in a timely fashion.

DCR regional CDCs will officially collect data and run reports for all programs quarterly. All necessary data should be entered into the AgBMP Tracking Module no less than on a weekly basis. Districts are to ensure that the status and data associated with each practice entered into the AgBMP Tracking Module is updated in a timely fashion and is kept as accurate as is possible. A Quarterly Budget Report that estimates funding needs for the coming quarter will be generated by the Module and monitored by the CDCs. In order to receive funding in an accurate and timely fashion, Districts need to be diligent about updating practice data continuously. CDCs will verify the need for disbursement of cost share funds prior to generating and authorizing disbursement request letters.

Data reporting for the end of the program year shall include an accounting of all CREP funds held by the District. These funds shall be identified as to whether the funds are obligated to a particular CREP practice presently under construction or un-obligated.

Inspections and Spot Checks

All Virginia CREP contracts are subject to inspection for program compliance during the life of the contract. Technical inspection and certification of completed CREP conservation practices is the responsibility of FSA and the Natural Resource Conservation Service. CREP conservation practices are subject to spot checks by FSA personnel throughout the life of the contract.

Questions

Questions concerning federal policies of the Virginia CREP should be directed to the local FSA or NRCS county office. Questions concerning state policies of the Virginia CREP that are not addressed in this Manual should be directed to either the DCR Regional Conservation District Coordinator or to the Agricultural Incentives Program Manager.

Revised April, 2020

Counties Included in the CREP Area

CHESAPEAKE BAY

All counties and hydrologic units with Chesapeake Bay drainage are eligible for CREP.

OUTSIDE THE CHESAPEAKE BAY

Counties and hydrologic units with Outside the Chesapeake Bay drainage are eligible for CREP with the exception of certain hydrologic units within Dickenson County. The only hydrologic units in Dickenson County that are eligible for CREP are: BS22, BS23, BS24, BS25, TC15, and TC17.

Name of Practice: CREP GRASS FILTER STRIP
DCR Specification for No. CP-21

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Conservation Reserve Enhancement Program grass filter strip that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

The state rental portion of the Conservation Reserve Enhancement Program (CREP) for grass filter strip installation on cropland along water features. To improve water quality and wildlife habitat by establishing a grass filter strip along water features on cropland.

B. Policies and Specifications

1. This is the state rental payment for the installation of a warm season grass filter strip on cropland in conjunction with a CREP contract with FSA.

2. Applicable in cropland only.

3. FSA determines eligibility.

4. A CRLF-1 reporting marker will be used to report the linear feet of stream bank protected when a CREP grass buffer (CRWQ-1) is installed in conjunction with the CREP contract. This reporting marker will be used in conjunction with the CP-21(rental practice) and the CRWQ-1 CREP Grass Filter strip) practice to report the linear feet of stream bank protected through the planting of a native warm season grass buffer planted on cropland adjacent to a waterway.

5. This practice is subject to the standards of the CP-21 contained in the FSA's 2-CRP Handbook and the CREP amendment to the CRP Handbook.

6. See applicable state BMP specifications for CRWQ-1 Grass Filter strip (warm season grasses only) for technical guidance:

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

C. Rate(s)

1. The state rental rate is $5 per acre per full year (as identified in field 9 of the CRP-1), for the life of the contract paid in a lump sum amount when all BMPs in conjunction with a CREP contract have been installed.

D. Administrative Responsibility

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

Revised March, 2016

Name of Practice: CREP RIPARIAN FOREST BUFFER
DCR Specification for No. CP-22

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Conservation Reserve Enhancement Program riparian forest buffer that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

The state rental portion of the Conservation Reserve Enhancement Program (CREP) for riparian forest buffer installation on marginal pasture land or cropland along water features.

To improve water quality and wildlife habitat by establishing a riparian forest buffer along water features in marginal pasture land or cropland.

B. Policies and Specifications

1. This is the rental payment for the installation of a forested riparian buffer in conjunction with a CREP contract with FSA.

2. Applicable in marginal pastureland and cropland.

3. FSA determines eligibility.

4. See applicable state BMP specifications for technical guidance:

   i. CRFR-3 Riparian Forest Buffer
   ii. CRSL-6 CREP Stream Exclusion with Grazing Land Management (used when the water source is a well, spring development or pond)
   iii. CRWP-2 CREP Stream Protection (used when the water source is a hardened access)
   iv. CRWQ-11 CREP Agricultural Sinkhole Protection (used to remove non-woody debris from CREP protected karst features)
   v. A CRLF-1 CREP Buffer Length Reporting marker will be used to report the linear feet of stream bank protected by removing livestock from access to the CREP restored riparian buffer when no buffer fencing (WP-2) and/or alternative watering system (SL-6) practice is installed or reported via the Tracking Program. This reporting marker will be used in conjunction with CP-22 (rental practice) and the CRFR-3 (Riparian Forest Buffer) practice to report the linear feet of stream bank protected when a riparian forest buffer is restored either by planting or natural regeneration on cropland or pasture land and no buffer fencing (reported as linear feet protected under a WP-2 or SL-6 practice) is reported.

5. This practice is subject to the standards of the CP-22 contained in the FSA's 2-CRP Handbook and the CREP amendment to the CRP handbook.

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

C. Rate(s)

1. The state rental rate is $5 per acre, per full year of the contract (as identified in field 9 of the CRP-1), for the life of the contract paid in a lump sum amount when all BMPs in conjunction with a CREP contract have been installed.

D. Technical Responsibility

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

Revised March, 2016

Name of Practice: CREP WETLAND RESTORATION RENT
DCR Specification for No. CP-23

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

A. Description and Purpose

The state rental portion of the Conservation Reserve Enhancement Program (CREP) for the restoration of prior converted wetlands. To improve water quality and wildlife habitat by re-establishing the hydrology of wetlands that have been altered to improve agricultural production.

B. Policies and Specifications

1. This is the rental payment for restoring the hydrology of prior converted cropland in conjunction with a CREP contract with FSA.

2. Applicable in prior converted wetlands only.

3. FSA determines eligibility.

4. See applicable state BMP specifications for technical guidance:
   i. CRFR-3 CREP Riparian Forest Buffer
   ii. CRWQ-6B CREP Wetland Restoration

5. This practice is subject to the standards of the CP-23 contained in the FSA's 2-CRP Handbook and the CREP amendment to the CRP Handbook.

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

C. Rate(s)

1. The state rental rate is $5 per acre per full year of the contract, (as identified in field 9 of the CRP-1) for the life of the contract paid in a lump sum amount when all BMPs in conjunction with a CREP contract have been installed.

D. Administrative Responsibility

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

Revised March, 2016

Name of Practice: CREP WILDLIFE HABITAT BUFFER
DCR Specification for No. CP-29

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

A. Description and Purpose

The state rental portion of the Conservation Reserve Enhancement Program (CREP) for wildlife habitat buffer installation (herbaceous; i.e. composed of grasses, shrubs and forbs) on marginal pasture land along water features.

The purpose of this practice is to improve water quality and wildlife habitat by establishing a herbaceous buffer along water features in marginal pastureland.

B. Policies and Specifications

1. This is the rental payment for the installation of a herbaceous buffer in conjunction with a CREP contract with FSA.

2. Applicable in marginal pastureland only.

3. FSA determines eligibility.

4. See applicable state BMP specifications for technical guidance:
   i. CRSL-6 Grazing Land Protection (used when the water source is a well, spring development or pond) to report the linear feet of stream bank protection.
   ii. CRWP-2 Stream Protection (used when the water source is a hardened access) to report the linear feet of stream bank protection.
   iii. CRWQ-1 Grass Filter Strips (used to report the acreage of the herbaceous wildlife habitat buffer planted. This buffer planting must be at least 50 feet in average width.
   iv. CRLF-1 reporting marker will be used in conjunction with CP-29 (rental practice) and the WQ-1 (Filter Strip) practice to report the linear feet of stream bank protected when livestock are removed from access to the CREP restored wildlife habitat buffer, rather than installing buffer fencing (reported as linear feet protected under a WP-2 or SL-6 practice).

5. This practice is subject to the standards of the CP-29 contained in the FSA's 2-CRP Handbook and the CREP amendment to the CRP handbook. The buffer shall be a minimum average width of **50 feet** from the top of the stream bank, up to one-third of the flood plain not to exceed 120 feet.

6. All practice components implemented must be maintained for the lifespan of the

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

C. Rate(s)

The state rental rate is $5 per acre, per full year of the contract (as identified in field 9 of the CRP-1), for the life of the contract paid in a lump sum amount when all BMPs in conjunction with a CREP contract have been installed.

D. Administrative Responsibility

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

Revised March, 2016

Name of Practice: CREP WOOODLAND BUFFER FILTER AREA
DCR Specifications for No. CRFR-3

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Conservation Reserve Enhancement Program riparian forest buffer practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice is a protection method along streams to reduce erosion, sedimentation, pollution of water from agricultural nonpoint sources and provide forest areas for the benefit of wildlife and aquatic environments.

The purpose of this practice is to offer an incentive that will change land use and establish a riparian forest buffer under the Conservation Reserve Enhancement Program (CREP) to provide stream bank protection and to control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality.

B. Policies and Specifications

1. Eligibility
   i. State cost-share and tax credit are authorized for:
      a) Establishing a wooded buffer zone along streams for protection and filtering action from surrounding land.
      b) Establishing shrubs along with forest tree species to promote wildlife habitat.
   ii. This practice is designed for cropland and pastureland that has been in production four out the past six years. Forestland being replanted following timber harvest is not eligible.
   iii. Cost-share or tax credit is a one-time incentive and can be utilized along with other cost-share programs for actual planting and site preparation costs. Cost-share for replanting may be authorized based on CRP policy.

2. Practice Development
   i. Wildlife and environmental consideration must be given when designing the practice.
   ii. Soil loss rates must be computed for all applications.

3. Practice Implementation
   i. This practice is subject to the specifications outlined in the DOF Virginia's Forestry Best Management Practices for Water Quality, Technical Manual and NRCS 391 Riparian Forest Buffer Standard.
   ii. Strip Width - Minimum width of the wooded buffer will be the same as NRCS, Technical Guide: Minimum width of 35 feet from the top of the stream bank, up to one-third of the flood plain not to exceed 300 feet.
   iii. Type of Vegetation - DOF personnel will specify appropriate tree species for use. Filter efficiency will also be improved by the addition of low growing or ground cover vegetation. Herbaceous plantings and shrubs may be encouraged to provide soil stabilization and improve benefits for wildlife.
   iv. A nurse crop of conifers may be cost shared and planted with the hardwood seedlings if recommended by DOF.
   v. Plantings must be protected from destructive fire and destructive grazing.

4. All practice components implemented must be maintained for the lifespan of the CREP contract. 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. For all CREP BMPs identified on approved farm conservation plans the CREP cost share rate is thirty-five percent (35%) of FSA approved eligible cost.

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

3. If an applicant receives cost-share, 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 identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April, 2019

Name of Practice: CREP LINEAR FOOT OF STREAMBANK PROTECTED
DCR Reporting Marker No. CRLF-1

This document defines the Virginia Department of Conservation and Recreation's Conservation Reserve Enhancement Program (CREP) linear foot of streambank protected reporting marker for reporting the linear feet of streambank protected by CREP implemented BMPs when other practices implemented under a CREP contract do not capture that data.

A. Description and Purpose

A reporting marker is necessary to accurately report the linear feet of streambank protected by:

i. The removal of livestock from marginal pastureland when no fencing or, alternative watering system is installed or,
ii. the planting of a CREP Riparian Forested Buffer (CRFR-3) or CREP Grass Filter Strip Buffer (CRWQ-1) on cropland or,
iii. when a wetland is buffered or,
iv. when a sinkhole is buffered
   (a) Where buffers surround sinkholes or wetlands please enter the circumference of the buffer or linear foot of buffer restored if it can be measured.

B. Policies and Specifications

This reporting marker may be used with any CREP contract that does not implement a BMP that reports the linear foot of stream bank protected through the restored CREP buffer.

C. Rates

There is no state cost share payment associated with this reporting marker.

D. Administrative Responsibility

Districts have the technical responsibility to identify when use of this reporting marker will provide accurate additional data about CREP's environmental accomplishments within their jurisdiction.

Revised March, 2016

Name of Practice: CREP STREAM EXCLUSION WITH GRAZING LAND MANAGEMENT
DCR Specifications for No. CRSL-6

Only implemented under CREP

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

A. Description and Purpose

A structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from existing pastureland and reduce NPS pollution associated with grazing livestock.

The purpose of this practice is to provide livestock watering systems and fencing that will improve water quality by eliminating direct access or a direct runoff input to live streams where there is a defined water quality problem. **Stream exclusion fencing is a required component of this practice.** The system receiving state cost-share and tax credit should reflect the least costly, most 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 FSA approved CREP projects.

2. An applicant may not apply for or receive cost share funds for SL-6 and SL-7or 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 and operation and maintenance plans must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed should include water sources, environmental impacts of soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

4. Flash grazing (allowing livestock to graze the excluded riparian area) is **NOT** allowed during the lifespan of this practice.

5. To protect stream banks and CREP buffer areas, state cost-share and tax credit are authorized for:
   i. Permanent stream exclusion fencing, to restrict access to the stream and the CREP buffer area in connection with newly-developed watering facilities. The stream exclusion fence must be:

a. placed a minimum of 35-feet away from the top of the streambank, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses;
b. installed parallel and adjacent to the CRP acreage;
c. necessary to prohibit livestock access to the CRP contract acres devoted to the riparian buffers.

ii. Stream crossings for grazing distribution, as long as the crossing restricts access to the excluded area.

6. To supply an alternative watering system to grazing livestock, state cost-share and tax credit are authorized for:
   i. Watering developments including:
      a. Wells, including a permanently affixed pump and pumping accessories;
      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. Livestock crossings **only** if the crossing is essential

7. This practice is not intended to establish pasture management. A rotational grazing system may be installed in conjunction with CREP stream exclusion fencing and alternative watering systems. Rotational grazing components may be funded utilizing Virginia Agricultural Best Management Practices Cost-Share Program (VACS) funds as follows:
   i. Within the CREP eligible areas, a simultaneously planned SL-7 practice may be used to develop a rotational grazing system where judged appropriate and feasible by the local technical authority (see the SL-7 specification for requirements). Consideration must be given, in such cases, to the additional management requirements of such systems.
   ii. An applicant may not apply for or receive cost share funds for SL-6 and SL-7 practices or SL-6 and CRSL-6 both funded by the Virginia Agricultural Best Management Practices Cost Share Program on the same fields.

8. 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.

9. Soil loss rates must be computed for all applications for use in establishing priority considerations.

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

11. This practice is subject to NRCS Standards: 382 Fence, 390 Riparian Herbaceous Cover, 533 Pumping Plant, 512 Pasture and Hay Planting, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 516 Livestock Pipeline, 472 Access Control, 642 Water Well.

12. The system shall be maintained for the lifespan of the CREP contract. By accepting payment for this practice the recipient agrees to maintain the practice for the specified lifespan. This practice is subject to spot check by USDA and the District throughout the lifespan of the practice Failure to comply may result in penalties, including contract termination and reimbursement of federal and state cost-share funds and/or tax credits.

C. Rate(s)

1. For BMPs identified on approved farm conservation plans the CREP state cost-share rate is thirty-five percent (35%) of FSA approved eligible cost. All state cost share payments will be based upon the FSA form 848.

2. In instances where extenuating circumstances result in cost-overruns, local CREP partners should coordinate to utilize the FSA "cost-share cap waiver" process, where appropriate.

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

4. The tax credit rate is 25% of the eligible out of pocket cost not to exceed $17,500.00. If an applicant receives cost-share, only the applicant's share of the project is used to determine the tax credit.

D. Technical Responsibility

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

Revised April, 2019

Name of Practice: CREP STREAM PROTECTION
DCR Specifications for NO. CRWP-2

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

A. Description and Purpose

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

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

B. Policies and Specifications

1. Cost-share and tax credit are authorized for:
   i. Permanent fencing to protect eroding banks from damage by domestic livestock. Cost Sharing may be authorized for fencing as a single eligible component that stands alone as a measure that will significantly improve water quality.
   ii. To provide access to water for livestock by installing livestock crossings that will retard sedimentation and pollution. When no other water source is feasible or exists, a controlled hardened access may be used to provide livestock access to the water. The installation of livestock crossings and controlled hardened accesses is limited to small streams. When required, permits must be obtained by the applicant from authorities before the practice will be approved.
   iii. Exclusion fencing with minimum set back of 35-feet may receive 75% state cost-share under this practice to assure complete exclusion of livestock from all surface waters when that area is ineligible to receive FSA CREP cost share due to an existing functional buffer.
   iv. Fencing may be authorized as a single eligible component only if all of the following apply:
      a) The fence is placed a minimum of 35' (feet) away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.
      b) There is adequate natural or planted vegetation between the fence and the stream to serve as an effective filter strip to improve water quality.

2. Both sides of the stream are fenced, or if livestock is restricted from both sides of the water way.

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

4. Wildlife and environmental consideration must be given when designing the practice.

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

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

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

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

9. All practice components implemented must be maintained for the lifespan of the CREP contract. 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. For all BMPs identified on approved farm conservation plans the CREP cost share rate is thirty-five percent (35%) of FSA approved eligible cost.

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

3. If an applicant receives cost-share, 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 identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April, 2019

Name of Practice: CREP HERBACEOUS RIPARIAN BUFFERS
DCR Specification No. CRWQ-1

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Conservation Reserve Enhancement Program (CREP) herbaceous riparian buffers best management practices that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

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

Cost-share and tax credit will be provided to install and maintain herbaceous riparian buffers that are located adjacent to cropland or animal holding areas.

B. Policies & Specifications for establishing CREP herbaceous riparian buffers for water quality

1. All trees, stumps, brush, rocks and similar materials that may interfere with installing the herbaceous riparian buffer should be removed. The materials should be disposed of in a manner that will not degrade the quality of the environment or interfere with the proper functioning of the buffer.

2. No-till planting is preferable. If grading is necessary, conventional equipment can be used for preparing the seedbed, fertilizing and maintenance.

3. Lime and fertilize according to soil test.

4. Select a seed mixture of permanent vegetation that satisfies the State minimum specifications and is appropriate for the time of planting.

5. Herbaceous riparian buffers planned for sediment and related pollutant control under the CREP are subject to the following state specifications.

6. Herbaceous riparian buffers must be a minimum 35' in average width or up to one-third of the flood plain;
   i. Except that herbaceous riparian buffers established in conjunction with a CP-29 practice must be a minimum of 50 feet in average width.
   ii. The maximum filter width eligible for cost-share payment and tax credit is 120 feet.

7. Herbaceous riparian buffers must be located adjacent to a live or intermittent waterway, or open sinkhole, within a pasture and otherwise eligible to participate in. An intermittent waterway is considered as being, but not limited to, any channel or flood prone area where periodic water flow or storage is diverted by surface drainage. Herbaceous riparian buffers may be installed along intermittent waterways where judged appropriate and feasible by the local technical authority.

8. The vegetative cover must be maintained without additional cost-share or tax credit for a life span of the associated CREP contract. Cost-Share and tax credit must be refunded if the operator destroys the cover during this time. This practice is subject to spot check by the District throughout the life of the practice.

9. State cost-share and tax credit will be provided only one time per filter strip, while that land is under the same ownership.

10. Grass filter strips shall be designed and installed to filter sheet flow, rather than concentrated flow. If concentrated flow will occur, land smoothing or the use of some other BMP or combination of BMPs may be required.

11. Select an appropriate planting mix for filtering runoff and protecting water quality from the NRCS Plant Establishment Guide for Virginia

12. Maintenance
   i. In cropland or marginal pasture, a herbaceous riparian buffer should be maintained on each side of the watercourse.
   ii. Protect the buffer from damage by livestock.
   iii. Do not use as a roadway.
   iv. Avoid operations that leave tillage or wheel marks.
   v. Woody stems should not be allowed to exceed 2 inches in diameter.
   vi. Avoid damaging buffer area with herbicides.

13. Herbaceous riparian buffers planned for runoff from concentrated livestock areas or controlled overland flow for the treatment of liquid wastes are subject to NRCS Specification 393 Filter Strip, 466 Land Smoothing, and 572 Spoil Spreading.

14. All practice components implemented must be maintained for the lifespan of the CREP contract. 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. For all BMPs identified on farm conservation plans the CREP cost share rate is thirty-five percent (35%) of FSA approved eligible cost.

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

3. If an applicant receives cost-share, 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 identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April, 2019

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

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

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

a. Determine the length (lf.) and width (ft) for calculating the area (acres) of the filter strip. Acres will be the extent technically authorized in

b. Using RUSLE, determine soil loss occurring in the field. Enter this erosion rate in the BMP Tracking Program

Step 2: Determine trapping efficiency of the filter area.

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

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

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

Area x Erosion Rate x SDR = Delivered Sediment Load

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

Sediment Load x Trapping Coefficient = Sediment Trapped

Use one of the following coefficients for your calculations:

Strip Width	Coefficient
35'	0.35
50'	0.50
100'	0.75

This trapping efficiency expressed in tons/year is entered into the Tracking Program as the gross erosion reduction.

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

Step 1: Size of filter area to be entered into the Tracking Program as the extent requested.

Erosion rate of 6 tons/ac./yr to be entered into the Tracking Program as S&R erosion reduction.

Step 2: Trapping efficiency

a. Delivered Sediment

$$\frac{\text{Length of filter strip (1,000) x Length of Slope (250)}}{43{,}560}$$

$$\frac{1{,}000 \times 250}{43{,}560} = 5.7 \text{ acres of contributing field}$$

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

5.7 x 6 x 0.5 = Delivered Sediment Load of 17.1

b. Trapping coefficient

Sediment Load (17.1) x Trapping Coefficient (0.5) = 8.55

Round 8.55 up to 9 and enter into the Tracking Program as gross erosion

Name of Practice: CREP WETLAND RESTORATION
DCR Specifications for No. CRWQ-6B

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

A. Description and Purpose

This practice will restore land to the hydraulic condition that existed prior to 1985 and the installation of drainage systems that converted wetlands to cropland.

To improve water quality by returning environmentally sensitive land back to its original wetland condition before it was converted to cropland.

B. Policies and Specifications

1. Authorized activities:
   i. For equipment work needed to completely fill drainage ditches to the original contour.
   ii. For excavation of sections of existing tile drainage.
   iii. For constructing ditch plugs.
   iv. For pipe risers or other structures to control the water level.

2. No activity is authorized for any restoration, enhancement or preservation of a wetland that is part of, or that becomes part of a wetland mitigation bank or is required by any state or federal, permit or local ordinance during the life of the practice.

3. This practice is subject to NRCS Standards; 342 Critical Area Stabilization, 356 Dike, 587 Structure for Water Control, 657 Wetland Restoration and 644 Wetland Wildlife Habitat Management.

4. All practice components implemented must be maintained for the lifespan of the CREP contract. 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. For BMPs identified on farm conservation plans the CREP cost share rate is thirty-five percent (35%) of FSA approved eligible cost.

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

3. If an applicant receives cost-share, 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 identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised April, 2019

Name of Practice: CREP AGRICULTURAL SINKHOLE PROTECTION
DCR Specifications for No. CRWQ-11

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Conservation Reserve Enhancement Program (CREP) agricultural sinkhole protection best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice provides a means of protecting groundwater quality from receiving surface contamination.

The purpose of this practice is to improve water quality by removing sources of pollution from sinkholes and providing an adequate buffer to trap and filter sediments and nutrients from surface flows that enter the groundwater through sinkholes.

B. Policies and Specifications

1. Cost-share and tax credits are authorized:
   i. For measures to remove and properly dispose of all foreign materials and debris dumped in and around sinkholes.
   ii. For associated structural and agronomic measures to provide adequate vegetation for filtering and sediment trapping of surface run off.
   iii. For fencing in order to provide livestock exclusion and personal safety in these areas.

2. Consideration should be given to wildlife, any rare, threatened and/or endangered species, and enhancing the appearance of the area when establishing the protective measures.

3. Site geology and hydrology must be considered in planning and installing component practices. Any openings such as swallets or cave entrances encountered with the installation of this practice will be documented and reported to The Department of Conservation and Recreation Division of Natural Heritage.

4. All debris (except biodegradable woody debris, rocks, and other mineral matter) removed from the sinkhole will be transported off site and disposed of in an environmentally safe manner. Should any hazardous material be anticipated or found during construction, local officials dealing with hazardous materials must be notified. Prevention methods, such as on site "over pack" drums, may be required if hazardous materials are known to exists at the site.

5. Once established, no additional debris or material can be placed within the sinkhole proper or within 35 feet of the drainage ways leading into the sinkhole. Deposition of any foreign material will violate the life span requirements of this standard.

6. All land disturbance activity will be adequately stabilized with appropriate vegetation as part of this cleanup effort. Appropriate vegetation will include, whenever possible, native grasses and shrubs.

7. This practice will be applied to those sinkholes that NRCS has identified as being eligible for CREP buffer restoration. These typically include:
    - Having direct livestock access or are connected to drainage ways with livestock access, in which case the sinkhole protection BMP should be installed in conjunction with fencing the livestock out of the drainage way.
    - Are actively taking water by way of perennial streams, intermittent streams, or any other channeled flow.
    - Are connected to external, non-channelized drainage ways (swales).
    - Exhibit multiple characteristics cited in item C.8.

8. This practice is subject to NRCS Standard 500 Obstruction Removal, 342 Critical Area Planting, 362 Diversion, 382 Fence, 390 Riparian Herbaceous Buffer, 391 Riparian Forest Buffer, 393 Filter Strip, 472 Access Control, and 612 Tree and Shrub Establishment.

9. All practice components implemented must be maintained for the lifespan of the CREP contract. 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. <u>Rate(s)</u>

1. For BMPs identified on farm conservation plans the CREP cost share rate is thirty-five percent (35%) of FSA approved eligible cost.

2. A rate based on 75% of the cost for debris removal has been established not to exceed $4,000 of Virginia Agricultural BMP Cost-Share funds. Cost-share may be from state funds or a combination of state and other sources.

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

4. If an applicant receives cost-share, only the percent of the total cost of the project that the applicant contributed is used to determine the tax credit.

C. Technical Responsibility

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

Revised April, 2019

Virginia's Poultry Litter Transport Incentive Program

The Virginia Department of Conservation and Recreation and the Virginia Poultry Federation offer a poultry litter transport incentive program to facilitate the efficient use of poultry litter as a crop nutrient source in areas that can most benefit from those nutrients and that are outside of the main poultry-producing counties. The goal of this program is to encourage development of self-sustaining poultry litter markets outside of the Chesapeake Bay watershed and in certain specified areas within the Chesapeake Bay watershed. Through the program, $7.50, $15, or $20 is provided per ton of litter moved to help cover the additional costs associated with increased transport distances.

A. Who is eligible?

1. Poultry litter end-users

B. Program requirements:

1. Poultry litter must originate on farms in Accomack, Page, or Rockingham counties.

2. To receive an incentive payment through this program, litter must be transported to a final destination either outside of the Chesapeake Bay watershed or to certain specified areas within the Chesapeake Bay watershed..

3. Up to 400 tons of litter may be eligible per applicant per incentive request. Subsequent requests may be submitted after a request for payment, with all forms completed, has been received on the previous request.

4. Completed Poultry Litter Transport Incentive Request Forms are valid for 12 months from the date of approval of the current request. If litter applications are not made within 12 months, a new form will have to be submitted for consideration. Supporting documents must be submitted within 30 days of litter application or May 31, whichever is sooner.

5. Certified scale weight tickets for **all** tonnage moved are **required** to receive payment.

6. A Nutrient Management Plan (NMP) must be prepared by a nutrient management planner certified by the Virginia Department of Conservation and Recreation (DCR) for all fields scheduled to receive poultry litter.

7. The end-user agrees to fully implement their NMP and to participate in NMP verification.

8. Fields eligible for payment must have a Virginia Tech soil test phosphorus reading (i.e.Virginia Tech soil test reading P lbs/acre, Mehlich I) no greater than the following:

Region	Soil Test Reading
Eastern Shore and Lower Coastal Plain	270
Middle and Upper Coastal Plain and Piedmont	272
Ridge and Valley	324

NOTES: To determine the region the field is in; refer to the list of eligible counties by region. Please refer to the table showing the correlation of other soil testing laboratories if necessary.

9. Fields eligible for payment must have maximum phosphorus application rates determined using the Soil Test Method or the Environmental Threshold Method (as described in the Virginia Nutrient Management Standards and Criteria, Revised July 2014), with phosphorus applications not to exceed crop removal phosphorus or crop nutrient needs determined by the soil test method, whichever is greater.

10. Poultry litter must have been analyzed within the previous three years to determine nutrient content and final application rate for nutrient management plan development. If analysis is unknown at the time the NMP is written, litter analysis shown in Table 8-4 in the Virginia Nutrient Management Standards and Criteria, Revised July 2014, may be used to develop the initial NMP.

11. No mortality (composted or otherwise) can be shipped as part of this incentive program. Litter containing mortality in any form will not qualify for payment.

12. Litter with moisture greater than 35% is ineligible for payment.

13. The receiving farm must have a safe off-loading site that does not pose an undue risk to water quality.

14. The receiving farm must store litter according to buffer requirements identified in the NMP's *Special Conditions* and cover the litter if stored more than 14 days. Storage sites must be identified in the NMP.

15. Vehicles used to transport poultry litter, including any application equipment, must contain the poultry litter within the cargo area without loss while operating on a public road.

16. Spot checks for compliance with these program requirements may be performed by the Virginia Department of Conservation and Recreation.

C. How to Apply:

1. To apply for a payment, the applicant must complete and return the Poultry Litter Transport Incentive Request Form and a Virginia W9 Tax Form to:

   Poultry Litter Transport Incentive Program
   Department of Conservation & Recreation
   12 Sunset Blvd.
   Staunton, VA 24401

2. Once the forms are received, they are reviewed by DCR. The incentive request must be approved by DCR prior to litter transport.

3. Once the Poultry Litter Transport Incentive Request Form has been approved for incentive payment and after litter has been applied, submit to the above address the following completed forms:
   - Field Application Record;
   - Chain of Custody form;
   - Certified scale weight tickets showing the litter tonnage transported; and
   - Nutrient Management Plan.

4. These documents must be received by DCR within 30 days of litter application or May 31, whichever is sooner. These documents will be reviewed and if approved, processed for payment. The party who submitted the Poultry Litter Transport Incentive Request Form will then receive the incentive payment.

D. Additional Poultry Litter Transport Incentive Program Information

For more information, please go to: https://www.dcr.virginia.gov/litter-transport or contact:

Cynthia Williams – (540) 332-9228: cynthia.williams@dcr.virginia.gov
Seth Mullins – (804) 517-0726: seth.mullins@dcr.virginia.gov
Timothy Sexton – (804) 371-0061: timothy.sexton@dcr.virginia.gov

Virginia's Poultry Litter Transport Incentive Program

G. Counties ELIGIBLE to receive litter:

From Accomack at a rate of $20/ton,

***Upper and Lower Coastal Plain*:**

Charles City	Chesapeake	Greensville
Isle of Wight	James City	New Kent
Prince George	Southampton	Suffolk
Surry	Sussex	Virginia Beach
Northumberland	Westmoreland	Richmond
Hanover	Gloucester	King & Queen
Essex	Caroline	Lancaster
King William	Middlesex	

From Rockingham and Page Counties at a rate of $15/ton:

***Middle and Upper Coastal Plain and Piedmont*:**

Brunswick	Charlotte	Franklin
Greensville	Halifax	Henry
Lunenburg	Mecklenburg	Patrick
Pittsylvania		

***Ridge and Valley*:**

Bland	Buchanan	Carroll
Dickenson	Floyd	Grayson
Lee	Pulaski	Russell
Scott	Smyth	Tazewell
Washington	Wise	Wythe

H. The following counties are eligible to receive litter from Page and Rockingham Counties at a rate of $15/ton or $7.50/ton as determined by the Chesapeake Bay watershed dividing line:

Middle and Upper Coastal Plain and Piedmont:

Appomattox	Bedford	Campbell
Dinwiddie	Prince Edward	Prince George

Ridge and Valley:

Botetourt	Craig	Giles
Roanoke	Montgomery	

<u>I.The following Counties are eligible to receive litter from Page and Rockingham Counties at a rate of $7.50/ton.</u>

Lower Coastal Plain:

Northumberland	Westmoreland	Richmond
Lancaster	King William	Essex
King & Queen	Gloucester	Middlesex

Upper Coastal Plain and Piedmont:

Albemarle	Amherst	Culpeper
Greene	Madison	Nelson
Orange	Hanover	Caroline

***Ridge and Valley*:**

Frederick	Clark	
Bath	Highland	Rockbridge

DCR
Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Return this Form to:
Poultry Litter Transport Incentive Program
Dept. of Conservation & Recreation
12 Sunset Blvd.
Staunton, VA 24401

CHAIN OF CUSTODY
SOURCE of the POULTRY LITTER

Name:			
Address:			
Contact Person:		**Telephone No.**	
Tons of litter		**County: □ Rockingham □ Page ☐ Accomack**	

The above information is correct to the best of my knowledge. Further, I agree to the following requirements:

- Provide a copy of the most recent poultry litter analysis, upon request.
- Permitted operations must comply with all Poultry Waste Management Regulations requirements.
- No mortality (composted or otherwise) will be shipped as part of this incentive program.

Grower Signature*_____ Date _____

*If grower's signature is unavailable, the Broker's signature will suffice.

POULTRY LITTER BROKER/TRANSPORTER

Name:			
Address:			
Contact Person:		**Telephone No.**	
Tons of litter shipped:			

The above information is correct to the best of my knowledge. Further, I agree to the following requirements:

- Vehicles transporting poultry litter, including any application equipment, will contain the manure within the cargo area without loss while operating on a public road.
- Brokers must comply with the reporting requirements of the Poultry Waste Management Regulations.
- No mortality (composted or otherwise) will be transported as part of this incentive program.

Broker/Transporter Signature _____ Date _____

END-USER OF POULTRY LITTER

Name:						
Address:						
Contact Person:			**Telephone No.**			
Tons of litter received:			**County:**		**HU Code:**	

The above information is correct to the best of my knowledge. *Further, I agree to implement a current nutrient management plan prepared by a nutrient management planner certified by the Virginia Department of Conservation and Recreation that includes the use of poultry litter as a crop nutrient source.*

End-user Signature _____ Date _____

Recipient of Incentive payment. (Same person who submitted "Poultry Litter Transport Incentive Request Form")

Name:	

Signature _____ Date _____

DCR
Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Poultry Litter Transport Incentive
Field Application Record

Return Completed form to:
Poultry Litter Transport Incentive Program
Dept. of Conservation & Recreation
12 Sunset Blvd.
Staunton, VA 24401

END-USER OF POULTRY LITTER:

Name: _____ **Source County:** _____

Address: _____ **Receiving County:** _____

_____ **Integrator*** _____

Telephone No.: _____

***ONLY if litter is from Accomack County**

FIELD INFORMATION

(Include **all** fields receiving litter)

Tract No.	Field No.	Acres Receiving Poultry Litter	Application Date	Tons Applied (Total)	Crop	Soil Test Phosphorus	DCR use Eligible (Yes/No)
	TOTAL:		**TOTAL**:				

*Please indicate soil testing lab used: _____

I certify the above information is true to the best of my knowledge

Signature_____**Date**_____

Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Poultry Litter Transport Incentive
Field Application Record
(Supplemental Form for Additional Fields)

FIELD INFORMATION

(Include **all** fields receiving litter)

Tract No.	Field No.	Acres Receiving Poultry Litter	Application Date	Tons Applied (Total)	Crop	Soil Test Phosphorus	DCR use Eligible (Yes/No)
	TOTAL:		**TOTAL**:				

*Please indicate soil testing lab used: _____

I certify the above information is true to the best of my knowledge

Signature: _____ Date: _____

Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Return Application to:
Poultry Litter Transport Incentive Program
Dept. of Conservation & Recreation
12 Sunset Blvd.
Staunton, VA 24401

Poultry Litter Transport Incentive Request Form

Incentive Payment Applicant

Name: _____

Social Security # or: _____ ***Federal Tax* Identification #:** _____

Address: _____

_____ **County:** _____

Contact Person: _____ **Telephone No.:** _____

Who is Eligible: Poultry Litter End-users

Acreage for Application: _____ Tons of litter to be applied: _____

- **Attach a completed "Request for Taxpayer Identification Number and Certification (Virginia W-9) Tax Form."**

5. **Obtain a current Nutrient Management Plan (NMP) that includes all fields scheduled to receive poultry litter transported through this program.** (The plan must have been prepared by a nutrient management planner certified by the Virginia Department of Conservation and Recreation.) **Litter must be applied as specified in the nutrient management plan.**
6. Up to **400** tons of litter may be eligible per applicant, per incentive request.
7. Fields scheduled to receive poultry litter transported through this program must have a Virginia Tech soil test phosphorus reading not exceeding the maximums shown in the program description and scheduled applications that do **not** exceed crop removal phosphorus or needed phosphorus (based on "Soil Test Method"), whichever is greater.
8. **No** mortality (composted or otherwise) will be shipped as part of this incentive program. Litter containing mortality in **any** form will **not** qualify for payment.
9. Poultry litter must originate on farms in Page, Rockingham or Accomack counties.
10. **To receive an incentive payment through this program, litter must be transported to a final destination outside of the Chesapeake Bay Watershed OR to a designated area within the Bay watershed.**
11. The receiving farm must provide a safe off-loading site that does not pose an undue risk to water quality.
12. The receiving farm must store litter in accordance with the buffer requirements identified in the NMP "Special Conditions", and cover the litter if stored more than 14 days. These sites must be identified in the NMP.
13. Completed "Poultry Litter Transport Incentive Request Forms" are valid for a period of 12 months. All forms and documents required for payment must be submitted within **30 days** of the litter application or by May 31, whichever comes first. If litter applications are not made within 12 months of the request, a new form must be submitted.
14. Virginia DCR and the Virginia Poultry Federation assume no liability regarding quality of poultry litter transported and applied under this program.

Signature _____ Date ___/___/___

For DCR Use Only

Approved □ Yes □ No

Tracking Number _____

Authorized Signature _____ Date: _____

Tonnage Overrun _____ Date Approved: _____

Glossary of Terms

Acres Benefited: The number of acres on which erosion is reduced due to BMP installation and/or acreage receiving benefit from the installation of a BMP (i.e., diversions, sod waterways, etc.). See Section II of this Manual for acreage benefited for each practice.

Advisory Committee: The Virginia Agricultural Best Management Practices Technical Advisory Committee.

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

Agricultural Products: Crops, livestock and livestock products, including but not limited to: field crops, forage, fruits, vegetables, horticultural specialties, cattle, sheep, hogs, goats, horses, poultry, furbearing animals, milk, eggs and furs.

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

Agriculturally and Forestal Significant Land: Land that has recently or historically produced agricultural and forestal products and is suitable for agricultural or forestal production or is considered appropriate to be retained for agricultural and forestal production as determined by such factors as soil quality, topography, climate, markets, farm structures, and other relevant factors.

Amount Approved by District: Determined by the District Board based on primary and secondary considerations, the cost-share rates, total estimated cost, extent approved and/or other considerations outlined in the DCR specifications.

Animal Equivalents (A.E.): One (1) A.E. equals 1,000 lbs. of live animal weight served by the facility in a given year.

Animal Type: The type of livestock the BMP is being installed to treat. For reporting in the AgBMP Tracking Module, accepts the following animal types.

Beef	Dairy	Swine	Layer	Sheep	Goat
Horse	Turkey	Broiler	Pullets	Llama	Other

Applicant: An applicant may be a landowner, agent, or operator of record as long as the individual has control of the property. An applicant may be any corporation, association, partnership, or one or more individuals. Various companies, corporations, and partnership arrangements exist for farm ownership. Farm corporations (signing under Federal Tax Identification number) or partnerships operating under a farm name are classified as a single "applicant." Applicants are identified by a unique social security number and/or Federal Tax Identification number.

Application: The Virginia BMP Incentives Programs Contract (Part I – Application for Program) as generated by the VA AgBMP Tracking Module. When completed and signed, it will be considered an application to participate in the Program.

Bedded Pack: An area within the loose housing facility that provides livestock with a bedded area for resting and walking in lieu of individual stalls and concrete alleys.

CDC: Conservation District Coordinator – DCR regional staff that provide support and assistance to the Conservation Districts.

Component Cost: Cost of materials or services associated with the installation of BMPs such as fertilizer, lime, seed, obstruction removal and nitrate or soil testing.

Conservation Plan: Any DCR Conservation Plan or U.S. Department of Agriculture (USDA) Conservation Plan that addresses the soil and water quality problems of the field or site being planned. Plans for individual fields are acceptable, as are those for tracts and entire farms.

Conservation Efficiency Factor (CEF): The CEF factor is calculated by the g AgBMP Tracking Module to serve as a ranking tool and provide some guidance for ranking applications that would implement different BMPs. This tool is designed to assist Districts with the ranking of their cost share practice applications. The CEF uses eleven different components, including soil loss data that is inputted by the District, as well as the environmental information associated with the location of the practice on the earth to generate a factor used to rank the proposed practice compared with other instances of the same BMPs as well as instances of other BMPs.

County Code: The Federal Information Processing Standards (FIPS) code.

District: Means a political subdivision of the Commonwealth organized in accordance with the provisions of the Code of Virginia contained in Chapter 5 of Title 10.1 (§ 10.1-500 et seq.) and with the powers and duties set out in Chapters 1, 5, 6, and 21 of Title 10.1 of the Code of Virginia; also referred to as a Virginia Soil and Water Conservation District.

Drainage Basin: Means, for funding allocation purposes, the lands within the Chesapeake Bay watershed (CB - Chesapeake Bay) or the lands in the Commonwealth exclusively outside of the Chesapeake Bay watershed (OCB - Outside of the Chesapeake Bay).

Engineering Job Approval Authority (EJAA): DCR Engineering Job Approval Authority (EJAA) is the authority to design, inspect, or certify various BMP Practices. The level of EJAA is granted by the DCR Agricultural BMP Engineer to individuals based on their training, experience and demonstrated competence.

Erosion Reduction: For all practices, except grass filter strips, animal waste facilities, and water control structures, specify reduction in tons per acre. Some practices will have sheet and rill erosion, gully erosion, or both. Any wind erosion should be added to sheet and rill.

For Grass Filter Strips (WQ-1), use the procedure outlined starting on page **WQ-1-4**.
For Animal Waste Facilities (WP-4), specify total tons of manure treated on an annual basis.
For Water Control Structures (WQ-5), disregard soil loss calculations, distance and relief to stream. Extent requested and Extent Technically Authorized should indicate acreage of drainage area behind each structure.

Erodibility Index (EI): An index calculated as part of the Virginia GIS project that has been used prior to program year 2009 as a priority consideration. This index calculated the effects of soil productivity on water quality. Since many of the factors involved in calculating the EI have been superseded by more recent and more accurate data new priority considerations were identified beginning in program year 2009.

Established Vegetation: Defined as a viable stand of vegetation that is currently growing with vigor or has been vigorously growing but is now dormant (not dead). The dormant stand has a population density that makes it probable that the vegetation will result in a long-term coverage of 80% or more of the soil surface throughout the area of concern, unless otherwise noted in the DCR practice specifications. This definition should be used where established vegetation is essential for the operation and design function of a practice installed according to NRCS specifications.

Extreme Act of Nature (EAN): Is defined as some sudden and irreversible act of nature that could not have reasonably been foreseen or prevented. Examples include floods, drought, fire, and exceptional storms like hurricanes and tornados. Generally such events should be supported or documented by actions that could include a Governor’s drought disaster designation or weather records that document excessive rainfall, floods, tornados or other such events.

Forestal Production: The production for commercial purposes of forestal products, and includes the processing or retail sales by the producer, of forestal products that are produced on the parcel. "Forestal products" include, but are not limited to, saw timber, pulpwood, posts, firewood, Christmas trees and other tree and wood products for sale or for farm use.

Free Stall: A structure that is divided into stalls in which individual animals rest, but are not restrained. A free stall facility is not eligible under the VACS Program.

Fully Implemented Nutrient Management Plan: For those practices requiring a "fully implemented nutrient management plan as part of the practice specifications, a "fully implemented nutrient management plan" means:

1. The plan is written by a current Virginia-certified nutrient management planner.
2. The producer agrees, by a signed document, that as the plan is written, the producer will be able to follow the crop rotation and all the nutrient recommendations on all fields signed up for this practice (at sign-up or prior to payment). The producer signature on a plan cover sheet is sufficient to meet this requirement.
3. The "fully implemented nutrient management plan":
    a. Applies to only those practice fields eligible for payment or tax credit.
    b. Those fields must meet the requirements of the practice specifications.
    c. Crops in the plan must accurately match actual crops in the field and management practices in the plan must be current with field treatments.

Gross Erosion Reduction: Typically used to report soil lost from gullies. Determined by multiplying length, times width, times depth of the existing erosion gulley, times the specific weight of soil present, and then divided by the number of years of erosion that were required to create the gully condition. The resulting answer is reported in Tons of Soil Loss per year. Where applicable, gross annual erosion other than sheet and rill erosion may be calculated using RUSLE 2.

Hardship: A declaration of a hardship case is defined as: A highly unusual situation where a participant is cooperating with the District and desires to make repayment of cost-share associated with a practice failure. However, due to a life-threatening illness, bankruptcy or some other highly unusual circumstance the participant is financially unable to make re-payment of the pro-rata share amount in one payment.

Highly Managed Hayland: Is a production system where cropland dedicated to hay production is not grazed. If grass-based, the participants must produce at least 3 cuttings a year of hay, and may have a nitrogen application for each cutting. However, in a designated drought condition the third cutting and nitrogen application would not be required. If legume based (e.g. alfalfa), the participants are exempt from the nitrogen application and are eligible for phosphorus management under NM-5P. Land (pasture) that is primarily grazed is not to be considered highly managed hayland.

Horticultural Production: The production for commercial purposes of horticultural products, and includes the processing or retail sales, by the producer, of horticultural products that are produced on the parcel. "Horticultural products" includes, but is not limited to, fruits of all kinds, grapes, nuts, and berries, nursery and floral products for sale or for farm use.

Hydrologic Unit: Hydrologic units are drainage areas that are delineated so as to nest into a multi-level hierarchical drainage system. Aside from the surface waters that are collected within the boundary of a hydrologic unit, it may also accept water from one or more points outside of the unit’s boundary. Hydrologic units should be identified by using the four digit alphanumeric Nation Watershed Boundary Dataset (NWBD) code found on a DCR hydrologic unit map.

Land Capability: The suitability of land for use without permanent damage occurring. Land capability, as ordinarily used in the United States, is an expression of the effect of physical land conditions, including climate, on the total suitability for use without damage from crops that require regular tillage, for grazing, for woodland and for wildlife. Land capability involves consideration of (1) the risks of land damage from erosion and other causes and (2) the difficulties in land use owing to physical land characteristics, including climate.

Land Capability Classifications: A grouping of kinds of soils into special units, classes, and subclasses according to their capability for intensive land treatments required for sustained use; USDA or other qualified Soil Scientist usually prepare such classifications.

Landowner or Owner of Land: Any person holding a fee simple interest in property but does not include the holder of an easement.

Lifespan: The number of years a BMP must be maintained in accordance with Program standards. The lifespan begins on January 1 of the calendar year following the year of certification of completion. A BMP is subject to spot check throughout the practice lifespan.

Live Stream or Live Water (for the purpose of the Virginia Agricultural Cost-Share Program only): A creek, stream, river or other water feature which has surface flow, or creates a surface flow, for a substantial portion of the year.

Loose Housing: A structure that allows animals to move freely within the structure and may include components such as a bedded pack and feed alley.

Revised Universal Soil Loss Equation (RUSLE): A soil loss equation principally used to estimate the rate that erosion is removing soil from critical parts of the landscape. Current NRCS guidance utilizes RUSLE 2 to calculate sheet and rill erosion.

Social Security Number (SSN): Recorded in the AgBMP Tracking Module and displayed on the BMP Incentives Programs Contract Part I. If an applicant is incorporated, use the Federal Employee's I.D. Number instead of the SSN. Refer to Definition of Applicant or Participant section of the BMP guidelines for further explanation.

Soil Sampling by Grid or Grid Soil Sampling: The taking of in-field soil samples based upon a grid overlay, each grid may be no larger than 4 acres.

Soil Sampling by Zone or Zone Soil Sampling: The taking of in-field soil sample based upon soil type, zones may be no larger than 20 acres in size.

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

Spot Check: A check of the BMP's viability during the program lifespan conducted by District personnel under the guidance of the Conservation District Coordinator.

State Piggyback: A joint cost-share procedure that allows for a percentage payment on a specific component of a BMP where the county FSA or NRCS payment is below the state Cost-Share Program payment maximum or cap. Districts may cost-share the difference between the FSA or NRCS amount and the maximum cap. This procedure is to be used where FSA or NRCS cost-share alone may not be enough economic incentive to carry out the practice and where the addition of state funds will achieve sufficient water quality improvement. For example, a state funded SL-7 may be used to pay for interior fencing (ineligible for FSA cost-share) to establish rotational grazing, if the application is made simultaneous with the CREP application. For a CREP application, a VACS funded SL-7 may be used to extend the watering system into adjacent grazing paddocks.

Tons Waste Treated: Annual total of waste managed by the system; expressed as tons/yr. This does not refer to the design capacity of the structure, but the cumulative total of manure for a 12-month basis.

Total Actual Cost: For flat rate practices, multiply the rate times the extent installed; for all other practices - the total of all eligible components as verified with receipts submitted to and reviewed by District conservation technicians or other technically competent conservation professionals. Though actual cost may exceed the amount authorized, only the authorized cost-share amount may be paid. For flat rate plus percentage of component cost practices (FR-1, FR-3, SL-1 and SL-3) enter acres technically authorized times the flat rate incentive payment PLUS the total cost of all eligible components.

Total Estimated Cost: Refers to total estimated eligible cost; do not include estimated cost for ineligible components. The total estimated cost shall be determined by designated technically competent personnel. For flat rate practices, multiply the estimated eligible cost per unit times the extent requested at signup; then update that value to the estimated eligible cost per unit times the extent actually installed, or the actual producer cost based on receipts, if necessary.

The AgBMP Tracking Module will calculate the applicable cost-share rate (e.g. 75%) for eligible components.

Total Maximum Daily Load: Means a calculation of a maximum amount of a pollutant that a waterbody can receive and still meet water quality standards; also referred to as TMDL.

USGS Topographic Map Name: The name of the U.S. Geological Survey (USGS) 7-1/2 minute quadrangle sheet that covers the area where a BMP practice is located.

Water Quality Index (WQI): An index calculated as part of the Virginia GIS project that has been used prior to program year 2009 as a priority consideration. The WQI calculated an erosion index with a delivery ratio to measure the effects of erosion on water quality. Since many of the factors involved in calculating the WQI have been superseded by more recent and more accurate data new priority considerations were identified beginning in program year 2009.

Applicant's Self-Certification of Eligibility

For the purposes of the Virginia Agricultural BMP Cost-Share Program agricultural land shall be defined as "land being used in a BONA FIDE program of agricultural management and engaged in the production of agricultural, horticultural or forest products for market. The real estate must consist of a minimum of five contiguous acres and have verifiable gross receipts in excess of $1,000 per year from the production or sale of agricultural, horticultural or forest products produced on the applicant's agricultural land for each of the past five years.

Districts may request that applicants provide proof of agricultural production. To be considered an agricultural producer there must be an annual minimum of $1,000 of agricultural products being produced, sold or both from the applicant's agricultural land (non-industrial private forest lands are exempt from the $1,000 requirement). Any financial records supplied by an applicant to verify eligibility will not be duplicated or retained by the District.

I have read, understand, and certify that I meet the above defined qualifications to participate in the Virginia Agricultural Best Management Practice Cost-Share Program.

_____ _____

Signature of Applicant Date

NUTRIENT APPLICATION FIELD RECORD SHEET

Farm Name: FSA Farm #: FSA Tract #: FSA Field #(s):

Manure Type: (poultry, liquid dairy, swine, etc.) Crop: Acres:

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre

1 Incorporation: Immediate, greater that two days, (>2 days), >4 days, or > 7 days 2 Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD

Farm Name: FSA Farm #: FSA Tract #: FSA Field #(s):

Manure Type: (poultry, liquid dairy, swine, etc.) Crop: Acres:

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre

[1] *Incorporation: Immediate, greater that two days, (>2 days), >4 days, or > 7 days* [2] *Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD*

NUTRIENT APPLICATION FIELD RECORD SHEET

Exam

Farm Name: *Henry Jones* FSA Farm #: *213* FSA Tract #: *5431* FSA Field #(s): *5*

Manure Type: (poultry, liquid dairy, swine, etc.) *Liquid Dairy* Crop: *Corn / Wheat* Acres: *10*

ple

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre
4/30/09	*>7 days*	*10*	*7,200 gals.*	*5/12/09*	*15*	*0*	*15*	*100 lbs*	*ST*	*3/10/09*	*1*
				6/15/09	*30*	*0*	*0*	*300 lbs*	*SD*		
				10/20/09	*10*	*20*	*20*	*250 lbs*	*BR*		

[1] *Incorporation: Immediate, greater that two days, (>2 days), >4 days, or > 7 days* [2] *Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD*

Farm Name: *Henry Jones* FSA Farm #: *213* FSA Tract #: *5431* FSA Field #(s): *6*

Manure Type: (poultry, liquid dairy, swine, etc.) Crop: *Liquid Dairy* Crop: *Sudangrass/ Barley* Acres: *40*

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre
4/25/09	*>2 days*	*40*	*3,000 gals*	*6/151/09*	*30*	*0*	*0*	*200 lbs*	*TD*		
				10/20/09	*10*	*20*	*20*	*200 lbs*	*TD*		

[1] *Incorporation: Immediate, greater than two days, (>2 days), >4 days, or > 7 days* [2] *Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD*

Risk Assessment for Water Quality Impairment from Heavy Use Areas/Animal Concentrated Areas

Client's Name: _____ Farm #: _____ Tract #: _____

Livestock Type: _____ No: _____ Avg. Wt.: _____

Is the cooperator currently feeding hay or other feedstuffs from a fixed location? ☐ Yes ☐ No

If yes, then describe where and how they are feeding:

If the cooperator is not feeding hay or other supplements, then do not complete this form.

For those who are feeding, are alternative concentrated feeding locations available? ☐ Yes ☐ No

Could relocation of the concentrated feeding area reduce the risk to the water resources? ☐ Yes ☐ No

Describe the alternatives discussed with the landowner:

Describe the selected alternative:

Note: The Landowner should be informed that if the selected alternative includes manure or wastewater handling, storage, or treatment practices, a Comprehensive Nutrient Management Plan (CNMP) must be developed and implemented for the farm prior to construction of the storage facility.

VA NRCS Concentrated/Feeding Livestock Area Manure and Nutrient Loading Estimator

1. Manure Estimator - Input site specific data into the table below:

Select Livestock Type from the list below in Table 1:	INPUTS								OUTPUT - Waste deposited annually in concentrated area		
	A	B	C	D	E	F	G	H			
	Number of animals fed	Average animal weight (lbs)	Days in concen-trated area (per year)	Portion of manure dropped in concen-trated area (%)	Size of concen-trated area (ac)	Manure production rate (lbs/day per 1,000 lbs of live weight)	Total N per ton of manure	Total P_2O_5 per ton of manure	Manure (tons/ac/yr)	Total N (lbs/ac/yr)	Total P_2O_5 (lbs/ac/yr)
6	100	75	250	90%	0.25	40	22.5	8	**135**	**3,038**	**1,080**

2. Guidance on inputs:

Column A, B, C, D, E, are site specific and may be adjusted according to site conditions and professional judgement.

Column D: If water is available in concentrated/feeding area, assume 60-70% drops in the area (adjust to site conditions).
If water is only available in pasture outside concentrated/feeding area, assume 40-50% drops in the area (adjust to site conditions).

Column E: The concentrated feeding area includes the feeding pad plus the total surrounding area with < 60% cover.

Columns F through H (see Table 1 below) are auto-filled with appropriate values when livestock type is selected.

TABLE 1

Livestock Type	Weight	Manure lbs./day/1,000lbs.	N/ton of manure	P_2O_5/ton of manure
1: Beef Finishing	400 - 1,000	65	11	3.1
2: Beef Cow/calf	900 - 1,400	104	7	3.5
3: Non Lact. Dairy	150 - 1,500	56	10	4
4: Lactating Dairy	1100 -1,500	119	13	5.4
5: Horse	1000-1,500	52	9.6	4.2
6: Goats/Sheep	30-200	40	22.5	8

Note: Calculation of manure weight, N, and P are associated with livestock concentrated/feeding locations. Dairy, beef, horse and sheep values are based on NRCS Agricultural Waste Management Field Handbook (AWMFH).

3. Guidance on interpreting output:

TABLE 2

Loading Rate (lbs/ac/yr) from Estimator above		Level of Concern	Water resources at risk	Loading Points
N	P2O5			
Less than 200	Less than 80	Minor	No	0
201 to300	81-120	Moderate	Possibly	15
301 to 800	121-310	Major	Possibly	40
801 to 1000	311-390	Excessive	Possibly	75
1,001 +	390 +	Extreme	Possibly	80

	Comments	Loading Points
Loading Points:	From Table 2	

Site Information - Receiving water feature and buffer considerations: (see exhibit 1 to determine if points are to be given in Section A below for overland flow to a vulnerable water feature *or* Section B below for a concentrated flow to a vulnerable water feature)

(A1) Overland Flow - Proximity to Vulnerable Water Feature:

		Comments	
< 100 Feet:	40 points	*Distance from edge of concentrated/ feeding area to edge of a water feature which includes open sinkholes, springs, streams (perennial or intermittent), wetlands and ponds.*	
100- 199 Feet:	25 points		
200-300 Feet:	15 points		
>300 Feet:	0 points		

(A2) Buffer width adjacent to the selected water feature:

< 35 Feet:	20 points	*A buffer is a vegetative area which effectively filters overland flow to the adjoining water feature (0-34' is not an effective buffer). Source: P Index and FOTG.*	
35 -100 Feet:	10 points		
>100 Feet:	0 points		
		Sum of A1 and A2:	**0**

or

(B) Concentrated Flow - Does the runnoff from the ACA enter a transport feature within 300 feet of the edge of the ACA?

Yes	60 points	*Transport Feature - A swale, grassed waterway, gully, or similar feature where concentrated water flow occurs. (This transport feature must flow into the vulnerable water feature in the above question)*	
No	0 points		
		The greater of A *or* B (maximum 60 points can be earned here):	**0**

Is the Vulnerable Water feature or Receiving Water Feature above classified as high value water?			
High Value Water - A stream, lake, or estuary designated within a TMDL watershed based on the 303d Impaired Waters List, endangered species, and/or designated trout waters.	Yes =	20 points	
	No =	0 points	
Site Information:			**Scoring Boxes**
		Comments	
Environmental Sensitivity Index: High 15 points; Medium 10 points; Low 0 points		From DCRs *Virginia Nutrient Management Standards and Criteria, Revised 10/2005,* Table 1-4. Includes soils with leaching potential, shallow soils and poor drainage. *(Use soil series at the existing HUA/ACA.)*	
Slope: 0-2 % 0 points; 2-6% 5 points; 6-15% 15 points; 15-25% 25 points		General slope of the HUA/ACA from the edge of feeding area to the vulnerable water feature.	
		Total Score:	0

Note: If total is 120 or greater, there is a significant risk of water resource impairment. Follow the planning process to address this concern. Consider both structural and non-structural alternatives.

Definitions:

Buffer - A permanently vegetated area with a minimum width of 35 feet.

High Value Water - A stream, lake, or estuary designated within a TMDL watershed based on the 303d Impaired Waters List, endangered species, and/or designated trout waters.

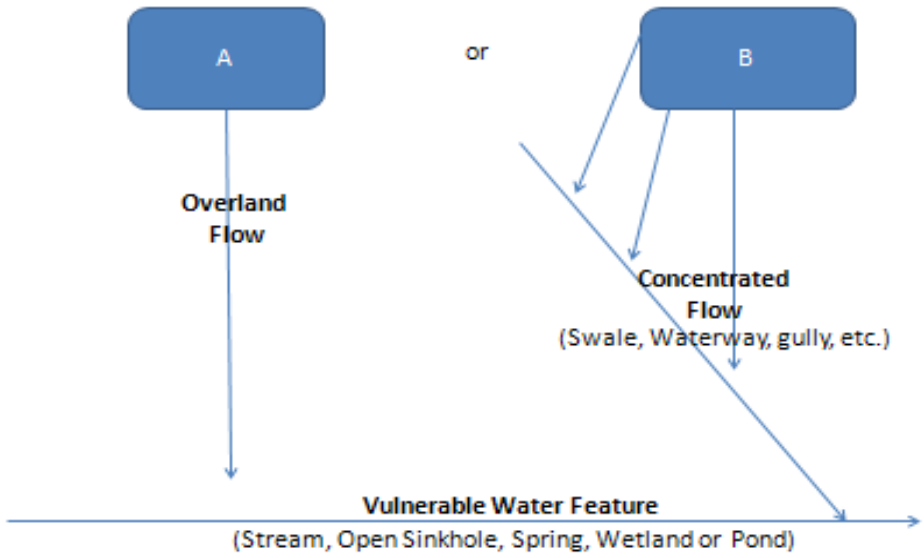
Karst features - Includes sinkholes, limestone rock outcrops, and fractured limestone that are direct conduits to ground water.

Vulnerable Water Feature - An open sinkhole, stream (perennial or intermittent), spring, wetland, or pond that is receiving overland flow.

Transport Feature - A swale, grassed waterway, gully, or similar feature where concentrated water flow occurs.

HUA/ACA - Areas which have a high concentration of livestock, large amounts of waste and the inability to sustain vegetation.

Exhibit 1



VIRGINIA AGRICULTURAL VOLUNTARY BEST MANAGEMENT PRACTICE (BMP) ASSESSMENT AUTHORIZATION

Land owner or manager having control of the land where BMPs are implemented:

Name: _____ **Phone: (H)** _____ **(M)** _____

Email: _____ **Address:**_____

Person to Contact (if different than above):_____

Phone (H): _____ **(M)** _____ **Email:** _____

I hereby authorize staff from the_____**Soil and Water Conservation District, access to the following farm(s) for purpose of conducting on site assessment(s) of BMPs that may be documented and reported to project reductions of nonpoint source pollutants that impact water quality. Check one:**

____ SWCD staff must contact me prior to accessing the named farm(s) and performing any site assessment(s) of one or more farms
____ SWCD staff have my permission to access the named farm(s) at any time over the next 5 years to perform any site assessment(s) without contacting me

Farm #1 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #2 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

(Use the reverse side of this sheet if additional farms are authorized for BMP assessment and reporting)

Printed Name of Land owner or manager having control of the land where BMPs are implemented _____

Signature: _____ **Date:** _____

I understand that my authorization remains in effect until I revoke such authorization

Any information collected pursuant to section §2.2-220.3 of the Code of Virginia shall be exempt from the Freedom of Information Act (§2.2-3700 et seq.)
Virginia Department of Conservation and Recreation programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, or political affiliation. An equal opportunity/ affirmative action employer.

Farm #3 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #4 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #5 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #6 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #7 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #8 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #9 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Any information collected pursuant to section §2.2-220.3 of the Code of Virginia shall be exempt from the Freedom of Information Act (§2.2-3700 et seq.)
Virginia Department of Conservation and Recreation programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, or political affiliation. An equal opportunity/ affirmative action employer.

NUTRIENT APPLICATION FIELD RECORD SHEET

Farm Name: _____ FSA Farm #: _____ FSA Tract #: _____ FSA Field #(s): _____

Manure Type: (poultry, liquid dairy, swine, etc.) _____ Crop: _____ Acres: _____

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre

1 Incorporation: Immediate, greater that two days, (>2 days), >4 days, or > 7 days 2 Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD

Farm Name: _____ FSA Farm #: _____ FSA Tract #: _____ FSA Field #(s): _____

Manure Type: (poultry, liquid dairy, swine, etc.) _____ Crop: _____ Acres: _____

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre

[1] *Incorporation: Immediate, greater that two days, (>2 days), >4 days, or > 7 days* [2] *Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD*

NUTRIENT APPLICATION FIELD RECORD SHEET

Exam

Farm Name: *Henry Jones* FSA Farm #: *213* FSA Tract #: *5431* FSA Field #(s): *5*

Manure Type: (poultry, liquid dairy, swine, etc.) *Liquid Dairy* Crop: *Corn / Wheat* Acres: *10*

ple

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre
4/30/09	*>7 days*	*10*	*7,200 gals.*	*5/12/09*	*15*	*0*	*15*	*100 lbs*	*ST*	*3/10/09*	*1*
				6/15/09	*30*	*0*	*0*	*300 lbs*	*SD*		
				10/20/09	*10*	*20*	*20*	*250 lbs*	*BR*		

[1] *Incorporation: Immediate, greater that two days, (>2 days), >4 days, or > 7 days* [2] *Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD*

Farm Name: *Henry Jones* FSA Farm #: *213* FSA Tract #: *5431* FSA Field #(s): *6*

Manure Type: (poultry, liquid dairy, swine, etc.) Crop: *Liquid Dairy* Crop: *Sudangrass/ Barley* Acres: *40*

Manure/Biosolids				Commercial Fertilizer/Lime							
				Fertilizer Material						Lime	
Date	Incorporation[1] Time	Acres Applied	Actual Rate/acre	Date	N	P_2O_5	K_2O	Rate/Acre	Method[2]	Date	Ton(s)/Acre
4/25/09	*>2 days*	*40*	*3,000 gals*	*6/151/09*	*30*	*0*	*0*	*200 lbs*	*TD*		
				10/20/09	*10*	*20*	*20*	*200 lbs*	*TD*		

[1] *Incorporation: Immediate, greater than two days, (>2 days), >4 days, or > 7 days* [2] *Starter=ST, Broadcast= BR, Top Dress=TD, Side Dress = SD*

Risk Assessment for Water Quality Impairment from Heavy Use Areas/Animal Concentrated Areas

Client's Name: _____ Farm #: _____ Tract #: _____

Livestock Type: _____ No: _____ Avg. Wt.: _____

Is the cooperator currently feeding hay or other feedstuffs from a fixed location? ☐ Yes ☐ No

If yes, then describe where and how they are feeding:

If the cooperator is not feeding hay or other supplements, then do not complete this form.

For those who are feeding, are alternative concentrated feeding locations available? ☐ Yes ☐ No

Could relocation of the concentrated feeding area reduce the risk to the water resources? ☐ Yes ☐ No

Describe the alternatives discussed with the landowner:

Describe the selected alternative:

Note: The Landowner should be informed that if the selected alternative includes manure or wastewater handling, storage, or treatment practices, a Comprehensive Nutrient Management Plan (CNMP) must be developed and implemented for the farm prior to construction of the storage facility.

VA NRCS Concentrated/Feeding Livestock Area Manure and Nutrient Loading Estimator

1. Manure Estimator - Input site specific data into the table below:

Select Livestock Type from the list below in Table 1:	INPUTS								OUTPUT - Waste deposited annually in concentrated area		
	A	B	C	D	E	F	G	H			
	Number of animals fed	Average animal weight (lbs)	Days in concen-trated area (per year)	Portion of manure dropped in concen-trated area (%)	Size of concen-trated area (ac)	Manure production rate (lbs/day per 1,000 lbs of live weight)	Total N per ton of manure	Total P_2O_5 per ton of manure	Manure (tons/ac/yr)	Total N (lbs/ac/yr)	Total P_2O_5 (lbs/ac/yr)
6	100	75	250	90%	0.25	40	22.5	8	**135**	**3,038**	**1,080**

2. Guidance on inputs:

Column A, B, C, D, E, are site specific and may be adjusted according to site conditions and professional judgement.

Column D: If water is available in concentrated/feeding area, assume 60-70% drops in the area (adjust to site conditions).
If water is only available in pasture outside concentrated/feeding area, assume 40-50% drops in the area (adjust to site conditions).

Column E: The concentrated feeding area includes the feeding pad plus the total surrounding area with < 60% cover.

Columns F through H (see Table 1 below) are auto-filled with appropriate values when livestock type is selected.

TABLE 1

Livestock Type	Weight	Manure lbs./day/1,000lbs.	N/ton of manure	P_2O_5/ton of manure
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Note: Calculation of manure weight, N, and P are associated with livestock concentrated/feeding locations. Dairy, beef, horse and sheep values are based on NRCS Agricultural Waste Management Field Handbook (AWMFH).

3. Guidance on interpreting output:

TABLE 2

Loading Rate (lbs/ac/yr) from Estimator above		Level of Concern	Water resources at risk	Loading Points
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801 to 1000	311-390	Excessive	Possibly	75
1,001 +	390 +	Extreme	Possibly	80

	Comments	Loading Points
Loading Points:	From Table 2	

Site Information - Receiving water feature and buffer considerations: (see exhibit 1 to determine if points are to be given in Section A below for overland flow to a vulnerable water feature *or* Section B below for a concentrated flow to a vulnerable water feature)

(A1) Overland Flow - Proximity to Vulnerable Water Feature:

		Comments	
< 100 Feet:	40 points	*Distance from edge of concentrated/ feeding area to edge of a water feature which includes open sinkholes, springs, streams (perennial or intermittent), wetlands and ponds.*	
100- 199 Feet:	25 points		
200-300 Feet:	15 points		
>300 Feet:	0 points		

(A2) Buffer width adjacent to the selected water feature:

< 35 Feet:	20 points	*A buffer is a vegetative area which effectively filters overland flow to the adjoining water feature (0-34' is not an effective buffer). Source: P Index and FOTG.*	
35 -100 Feet:	10 points		
>100 Feet:	0 points		
		Sum of A1 and A2:	**0**

or

(B) Concentrated Flow - Does the runnoff from the ACA enter a transport feature within 300 feet of the edge of the ACA?

Yes	60 points	*Transport Feature - A swale, grassed waterway, gully, or similar feature where concentrated water flow occurs. (This transport feature must flow into the vulnerable water feature in the above question)*	
No	0 points		
		The greater of A *or* B (maximum 60 points can be earned here):	**0**

Is the Vulnerable Water feature or Receiving Water Feature above classified as high value water?			
High Value Water - A stream, lake, or estuary designated within a TMDL watershed based on the 303d Impaired Waters List, endangered species, and/or designated trout waters.	Yes =	20 points	
	No =	0 points	
Site Information:			**Scoring Boxes**
		Comments	
Environmental Sensitivity Index: High 15 points Medium 10 points Low 0 points		From DCRs *Virginia Nutrient Management Standards and Criteria, Revised 10/2005,* Table 1-4. Includes soils with leaching potential, shallow soils and poor drainage. *(Use soil series at the existing HUA/ACA.)*	
Slope: 0-2 % 0 points 2-6% 5 points 6-15% 15 points 15-25% 25 points		General slope of the HUA/ACA from the edge of feeding area to the vulnerable water feature.	
		Total Score:	0

Note: If total is 120 or greater, there is a significant risk of water resource impairment. Follow the planning process to address this concern. Consider both structural and non-structural alternatives.

Definitions:

Buffer - A permanently vegetated area with a minimum width of 35 feet.

High Value Water - A stream, lake, or estuary designated within a TMDL watershed based on the 303d Impaired Waters List, endangered species, and/or designated trout waters.

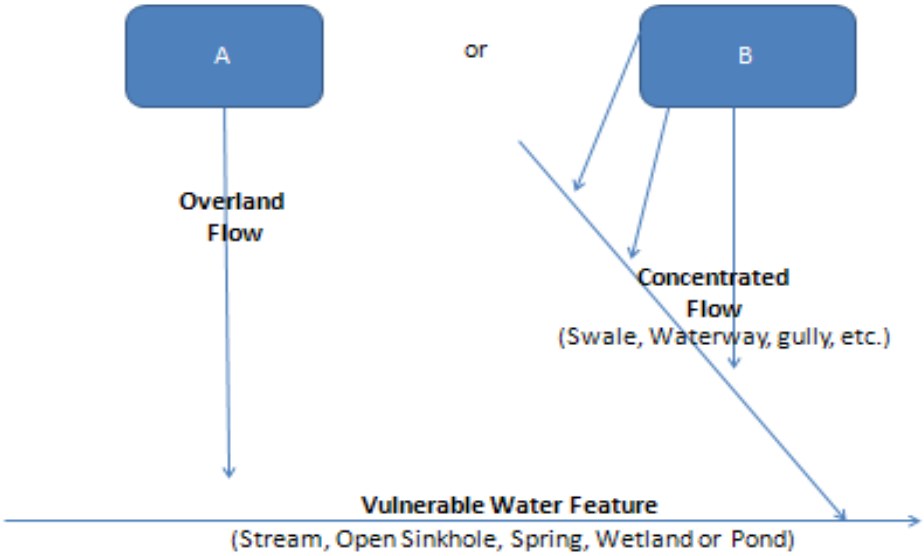
Karst features - Includes sinkholes, limestone rock outcrops, and fractured limestone that are direct conduits to ground water.

Vulnerable Water Feature - An open sinkhole, stream (perennial or intermittent), spring, wetland, or pond that is receiving overland flow.

Transport Feature - A swale, grassed waterway, gully, or similar feature where concentrated water flow occurs.

HUA/ACA - Areas which have a high concentration of livestock, large amounts of waste and the inability to sustain vegetation.

Exhibit 1



COMMONWEALTH OF VIRGINIA
Department of Conservation and Recreation, Division of Stormwater Management

Form DCR # 199-206 (08/11)

VIRGINIA AGRICULTURAL VOLUNTARY BEST MANAGEMENT PRACTICE (BMP) ASSESSMENT AUTHORIZATION

Land owner or manager having control of the land where BMPs are implemented:

Name: _____ Phone: (H) _____ (M) _____

Email: _____ Address: _____

Person to Contact (if different than above): _____

Phone (H): _____ (M) _____ Email: _____

I hereby authorize staff from the _____ Soil and Water Conservation District, access to the following farm(s) for purpose of conducting on site assessment(s) of BMPs that may be documented and reported to project reductions of nonpoint source pollutants that impact water quality. Check one:

____ SWCD staff must contact me prior to accessing the named farm(s) and performing any site assessment(s) of one or more farms
____ SWCD staff have my permission to access the named farm(s) at any time over the next 5 years to perform any site assessment(s) without contacting me

Farm #1 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #2 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

(Use the reverse side of this sheet if additional farms are authorized for BMP assessment and reporting)

Printed Name of Land owner or manager having control of the land where BMPs are implemented _____

Signature: _____ Date: _____

I understand that my authorization remains in effect until I revoke such authorization

Any information collected pursuant to section §2.2-220.3 of the Code of Virginia shall be exempt from the Freedom of Information Act (§2.2-3700 et seq.)

Virginia Department of Conservation and Recreation programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, age, national origin, or political affiliation. An equal opportunity/ affirmative action employer.

Farm #3 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #4 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #5 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #6 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #7 Name: _____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #8 Name:_____, located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Farm #9 Name: _____ , located (provide sufficient explanation to ensure the location of authorized land is clear):

_____

_____

Any information collected pursuant to section §2.2-220.3 of the Code of Virginia shall be exempt from the Freedom of Information Act (§2.2-3700 et seq.)
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Certification from an Agricultural Best Management Practice Participant
Regarding Tax Credits and Cost-share Eligibility

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

Signed: _____.

Date: _____.

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

NM-3C	NM-4	NM-5N	NM-5P	NM-6	NM-7
SL-8	SL-8A	SL-8B	SL-8H	SL-15A	SL-15B
WQ-4					

Cost Share File Administrative Review Form

SWCD: _____

Review Completed By: _____ Date: _____

Cost Share File Reviewed:
Note: Files selected for review should not be older than 5 years.

Participant/Farm Name: _____ Practice Code: _____

Contract #: _____ Instance #: _____

Yes No **Part I**

☐ ☐ Is there a W-9 form completed by the applicant?

☐ ☐ Does Part I accurately reflect information provided on the W-9?

☐ ☐ Is applicant information fully completed? If no, describe the missing data.
Missing Data: _____

☐ ☐ Is the box related to "funding from other SWCDs" checked?

☐ ☐ Is the application signed and dated by the participant? Signature Date: _____

Yes No **Part II**

☐ ☐ Is there a computer generated copy of the completed Part II?

☐ ☐ Is the contract portion of the application fully completed? If no, describe the missing data.
Missing Data: _____

☐ ☐ Has the SWCD "Amount Approved" been changed? If yes, describe reason for increase.
Approved Amount: $_____ Increased Approved Amount: $_____
Reason for Increase: _____

☐ ☐ Has *Statement of Technical Need* been signed by a SWCD employee?

☐ ☐ Has a director signed and dated the technical authorization section?

☐ ☐ Is the required completion date noted appropriately on the form?

☐ ☐ Is approval of this contract recorded in the minutes? Date of minutes: _____

☐ ☐ Is there a copy of an approval letter/memo that was sent to the participant and included the date of approval, approval amount, completion deadline, and information regarding the next steps?

☐ ☐ If this practice was carried over, was the carryover section fully completed for each carryover? Note, a practice may be carried over multiple times and should always be documented. *(If N/A skip to Part III)*
If no, describe the missing data: _____

☐ ☐ Was the completion deadline for the carryover entered in the carryover section for each carryover?
Carryover Completion Date(s): _____

☐ ☐ Is approval of each carryover recorded in the minutes? Date of minutes: _____

☐ ☐ Is there a copy of a carryover approval letter for each carryover that was sent to the participant that provides appropriate information and deadlines?

Cost Share File Administrative Review Form

Yes	No	**Part III**
☐	☐	Is there a computer generated copy of the completed Part III?
☐	☐	Is the contract portion of the Part III fully completed? If no, describe the missing data. Missing Data: _____
☐	☐	Is the SWCD "Payment Amount" equal to or less than the SWCD "Amount Approved" in Part II? Payment Amount: $_____
☐	☐	If the "Payment Amount" is higher than the "Approved Amount," was the increase approved by the Board and reflected in the minutes? Date of Minutes: _____ Reason for increase: _____
☐	☐	Did the participant certify that the practice is complete?
☐	☐	Did a technician, DCR AG BMP Engineer, or PE, certify that the practice is complete? Name and title of technician or engineer: _____
☐	☐	For structural practices, did the technical staff certifying the practice have the appropriate Engineering Job Approval Authority to certify the practice?
☐	☐	If a tax credit was provided, is the tax credit 25% of the participant's out of pocket expenses based on the estimated cost or actual cost, whichever is less? *(If N/A skip to Conservation Plans)*
☐	☐	Is there a copy of the tax credit certificate?

Yes	No	**Conservation Plans** (*Skip if N/A)*
☐	☐	Was a Conservation Plan required? Plan Approval Date: _____
☐	☐	Was the Conservation Plan written by a certified Conservation Planner?
☐	☐	Are the necessary BMPs included in the Conservation Plan?
☐	☐	Are all of the required signatures signed by the appropriate people?

Yes	No	**Resource Reviews** (*Skip if N/A)*
☐	☐	Is there documentation of a resource review having been completed? A print out of the resource concerns page from the tracking program is preferred; an NRCS CPA52 does not meet the requirement.
☐	☐	If resources concerns were identified, were they addressed by an NRCS CPA52 or other documents, like communications from partner agencies (ex: emails from DCR-DNH, DGIF, DHR)?

Yes	No	**Other Items**
☐	☐	Have conservation planning notes (Con6 Notes) been initiated and maintained?
☐	☐	Is there a Location Map with road names or route numbers and/or driving directions?
☐	☐	Is there a clear Conservation Plan Map that includes the installed BMPs, field labels, etc? If the map is not easily readable, how could it be improved? _____
☐	☐	Are copies of the bills/invoices submitted by the participant for payment included?

Cost Share File Administrative Review Form

Yes	No	**Other Items (cont.)**
☐	☐	Is payment documentation, like a calculation spreadsheet, copy of issued checks, etc, included? If no, describe the missing data: _____
☐	☐	Is the "general tab" in the Tracking Program complete?
☐	☐	If a Nutrient Management Plan was required, is there a copy of the plan?
☐	☐	If a Grazing Management Plan was required, is there a copy of the plan? (SL-6N/W, SL-7, and SL-10)
☐	☐	For SL-15A, have the fields in the contract been cropped in 2 of the past 5 years? Have the rotations included 2 crops of small grains in 5 years? If no, explain: _____

For Structural Practices:

☐	☐	Are design and related job sheets included with all of the required signatures?
☐	☐	Are "As Built" designs included with all required signatures?
☐	☐	For estimated component costs ≥$30,000, was the bid process followed and a *DCR Bid Solicitation Sheet* filled out?
☐	☐	For WP-4 and WP-4B practices, was the *Risk Assessment for Water Quality Impairment from Heavy Use Areas/Animal Concentrated Areas* utilized in the planning process for this practice?
☐	☐	For WP-4 dry stack facilities, was the *Dry Manure Storage Structure Agreement* signed?
☐	☐	For WP-4 practices, was there an Agricultural Waste Management System Plan prepared and signed?

Notes about this Administrative Review: